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REPORT TO THE CONGRES

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BY THE COMPTROLLER GENERAL OF THE UNITED STATES

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Disincentives To Agricultural Production In Developing Countries

Department of State and other agencies

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These disincentives exist although more food is urgently needed and other countries and institutions have provided assistance to help increase production. Also food assistance from others has permitted countries to postpone removing disincentives.

U.S. Government agencies providing food and agricultural assistance should give maximum consideration to the adequacy of the recipient country's self-help measures and work for concerted action among all countries and institutions to induce aid recipients to remove production disincentives and provide adequate incentives.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

This is one of a series of reports on ways to improve the world food situation, especially in developing countries. The report discusses the need for governments receiving foreign assistance to provide incentives for their farmers to increase food production and thus provide an environment conducive to more effective use of such assistance.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget, and to the heads of interested agencies.

Elmer B. Staats

Comptroller General
of the United States

Contents

ABBREVIATIONS

AID	Agency for International Development
FAO	U.N. Food and Agriculture Organization
GAO	General Accounting Office
IMPROME	Imputed Land Productivity Tax
USDA	U.S. Department of Agriculture

COMPTROLLER GENERAL'S REPORT TO THE CONGRESS

DISINCENTIVES TO AGRICULTURAL PRODUCTION IN DEVELOPING COUNTRIES
Department of State and other agencies

D I G E S T

Developing countries can increase their agricultural production and provide their people with urgently needed food if they provide their farmers with economic incentives and supporting services.

However, these countries have policies and institutional factors which act as disincentives to their farmers to expand agricultural production.

GAO recommends that the Secretaries of Agriculture and State and the Administrator of the Agency for International Development, when providing food and agricultural assistance to developing countries, give maximum consideration to these disincentives and work for their removal.

GAO also recommends that the Secretaries of State and the Treasury work for concerted action by all countries and institutions providing economic assistance to induce recipients to remove the disincentives and adopt a positive strategy providing adequate incentives to farm production. (See ch. 10.)

Disincentive governmental policies and institutional factors, including those listed below, can be eliminated if the governments wish to do so. (See ch. 1.)

--Low producer prices discourage farmers from using more productive methods or otherwise expanding production. (See ch. 2.)

--Export taxes restrict production for export. (See ch. 3.)

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--Monetary and trade policies make food imports attractive and discriminate against food and agricultural exports. (See ch. 4.)

--Restrictions on moving food from surplus to deficit areas discourage increased production in the producing areas. (See ch. 5.)

--Institutional credit generally is not available to small farmers, producers for export are favored over producers for domestic consumption, and problems in obtaining institutional credit force farmers to use more expensive forms of credit. (See ch. 6.)

--Extension services are generally inadequate, do not reach small farmers, and are applied to export crops rather than domestic consumption crops. (See ch. 7.)

--Extreme disparities in farm sizes and forms of land tenure deter increased production. (See ch. 8.)

Countries and institutions offering economic assistance have not required developing countries to take effective action to eliminate disincentives as a condition for receiving assistance.

An International Fund for Agricultural Development is being considered to provide an additional $1 billion annually to finance food production projects in developing countries. Effective actions by governments to provide incentives and support services to their farmers should be a primary consideration to providing such funds and to continuing previous levels of assistance. (See ch. 1.)

Bulk quantities of food on concessional terms (such as the $27 billion worth provided by the U.S.) have adversely affected production in recipient countries by keeping down prices and by permitting governments to postpone needed agricultural reforms.

The World Food Conference recommended that donor countries insure a minimum of 10 million tons of food grains annually, and at least 8.8 million tons were committed for 1975, including $1.6 billion by the U.S. If food aid is not to adversely affect production, greater consideration must be given to the adequacy of developing countries' efforts to realize their own production potential and to insure that food aid is geared to development. (See ch. 9.)

The Departments of Agriculture, State, and the Treasury and the Agency for International Development agree that more efforts should be devoted to eliminating disincentives affecting developing countries' food production and to providing incentives for expanding production. (See ch. 10.)

CHAPTER 1

GOVERNMENTAL POLICIES AND INSTITUTIONAL FACTORS--

THEIR ADVERSE EFFECT ON FOOD PRODUCTION

Our September 6, 1974, report entitled "Increasing World Food Supplies--Crisis and Challenge" discussed the principal issues affecting the world food situation and the responses needed to deal with these issues. We pointed out that the developing countries' twin problems of increasing food production and curtailing population growth need to be addressed on an international basis.

If the critical food situation is to be alleviated in developing countries, they must act to increase domestic food production because they have neither sufficient food production nor the foreign exchange to buy needed food. The United States and other developed countries are major food suppliers and have the potential to further increase production; however, production costs and the logistics involved in providing the needed imports (estimated to increase to about 85 million tons by 1985) severely limit the extent to which the developed countries can provide the needed food.

Since the early 1950s the developing countries have made great strides in increasing food production, but population increases have permitted only a small increase in the amount of food available per capita. (Over 80 percent of the world population increases are taking place in these countries.) However, developing countries have a tremendous potential for increasing production because their yields are but a fraction of those in developed countries.

To realize this potential, farmers must have an economic incentive to increase their output. Major reasons why developing countries have not experienced greater production increases and higher yields have been governmental policies and institutional factors which provide insufficient economic incentives or act as disincentives.

Common to developing countries are such constraints on food production as inadequate transportation, storage, and communications, which can be improved only through economic development. Other factors, however, are directly attributable to the governments' policies and institutions, which can be changed if the governments have the political will. These disincentives relate to such matters as pricing, taxes, exchange rates, farm credit, extension services, and land tenure.

International agencies have long recognized the effects of governmental policies on food production but have taken very little concerted action to motivate the developing countries to change their policies.

The U.N. Food and Agriculture Organization (FAO), in the chapter in its 1967 annual report entitled "Incentives and Disincentives for Farmers in Developing Countries," cited (1) the absence of any real economic incentive for th average farmer as a major cause of lagging food production developing countries and (2) disincentives relating to pric credit, and land tenure policies and practices. A 1968 FAO report said that the potential existed for much more rapid agricultural production increases, but only if farmers adopted new methods and governments changed their policies concerning research, extension, marketing, storage, and credit. FAO expressed similar views in 1970 and 1973 reports.

The World Bank too has reported that developing countries' economic policies often militate against agricultural development. The need for governments to examine their policies was emphasized by the Bank president in September 1974. He said progress will involve commitment to effective land reform; assurance of adequate credit at reasonable cost; and reassessment of pricing, taxation, and subsidy policies that discriminate against rural areas. He expressed the view that, although developing countries have the potential to increase their agricultural productivity, that potential cannot be realized unless they make sweeping changes.

U.S. officials have recently began to draw attention to disincentive policies and institutional factors and the need to correct them. A typical statement was the Secretary of State's address at the November 1974 World Food Conference in which he said:

> "In far too many countries, farmers have no incentive to make the investment required for increased production because prices are set at unremunerative levels, because credit is unavailable, or because transportation and distribution facilities are inadequate. Just as the exporting countries must adjust their own policies to new realities, so must developing countries give a higher priority for food production in their development budgets and in their tax, credit, and investment policies."

The Conference adopted a resolution affirming "that in order to solve the food problem, highest priority should be given to policies and programmes for increasing food production * * * in developing countries.* * *"

The President's February 1975 Economic Report stated that many developing countries had neglected their agricultural sectors by underinvesting in agricultural research, failing to provide expanded supplies of modern inputs, and having trade and price policies that reduce farmers' incentives to adopt modern inputs.

Even though the adverse effect of such disincentives has been recognized by international and U.S. organizations, and developing countries have an urgent need for more food than they produce, disincentives still permeate the policies and institutions of most developing countries. The U.S. Department of Agriculture (USDA) surveyed its agricultural attaches in more than 50 countries to identify the types and degrees of disincentives and to determine the extent to which nations with food shortages are aggravating their problem by governmental policies and programs.

The report, "Disincentives to Agricultural Production in Developing Countries: A Policy Survey," published in March 1975, identified 46 countries as having policies that directly or indirectly discourage domestic production. The survey results (see app. IX) revealed nine basic disincentive areas:

--Government control of producer prices: 38 countries.

--Government control of consumer prices: 35 countries.

--Government procurement practices for food crops: 26 countries.

--Export taxes: 22 countries.

--Export controls: 22 countries.

--Restrictions on credit and land tenure: 19 countries.

--Import subsidies: 17 countries.

--Restrictions on commodity movements within the country: 11 countries.

--Exchange rate controls: [illegible] countries.

Various donor agencies have considered such policies to some extent in their assistance programs, and governments have been giving more recognition to their disincentive policies. However, after billions of dollars of external assistance, the governments have not made agricultural reforms to the extent necessary for such assistance to be most effective, and the donors have not taken concerted action to bring about such reforms.

In addition to the $1 billion provided by the Agency for International Development (AID) for fiscal years 1972 through 1975, the World Bank Group alone has provided $4.6 billion to the agriculture sector through 1974.

The World Food Conference estimated that foreign assistance to agriculture was about $1.5 billion annually and indicated that $5 billion annually was needed. The Conference adopted a resolution calling for the establishment of an International Fund for Agricultural Development to finance food production projects in developing countries. Since the Conference, that proposal has been under consideration. In his September 1, 1975, U.N. speech, the Secretary of State said that the United States will seek authorization of a direct contribution of $200 million to the fund--provided that others will add their support for a combined goal of at least $1 billion.

Besides lack of resources, the principal constraint on increasing food production in the developing countries is governmental policies that discourage increased investment in and allocation of resources to food production. Changing such policies should be a primary consideration to providing additional resources through the International Fund for Agricultural Development or for continuing previous levels of assistance.

External assistance donors have generally felt that the developing countries are responsible for changing their disincentive policies and institutions; the donors have therefore been reluctant to take positive action to induce them to make such changes.

This reluctance is typified by the statements of two donor countries' delegates to the March 1973 Organization for Economic Co-Operation and Development meeting on promoting rural development. One delegate suggested that the discussion focus on what donors can do to help the developing countries and not on what the countries can do to help themselves. A second delegate agreed, underlining the sensitivity of this area and suggesting that donors follow developing countries' policies and priorities.

The Secretary of Agriculture, on September 4, 1974, however, indicated that donors have the responsibility to influence recipient governments to make agricultural reforms.

> "* * * we have not feared to use our productive ability to ease the world's food problems. As a government, however, we cannot play the fool. We cannot rush in unwanted. We cannot force another country to undertake land reforms, to end age-old distribution systems which may keep the poor from getting what they need, to invest in the inputs required for increased production, or to move more aggressively on population control measures. On the other hand, <u>we must not shirk our responsibility to press for progress on these critical fronts</u>." (Underscoring supplied.)

Donor agencies and U.S. officials indicated that they could help bring about agricultural reforms through

--transfer of technology and resources,

--evaluation of the effects of existing and proposed policy options,

--assistance in developing internal capability to evaluate alternative policies, and

--personal influence and close working relationships with recipient country personnel.

These actions may be and may have been somewhat beneficial, but because of the urgent need to increase developing countries' food production and the continued existence of major disincentive policies, stronger, more positive actions are required. Donors can take such action by making removal of disincentives a requirement for continued food, financial, and technical assistance.

We surveyed the policies and institutions affecting food production in Indonesia, Sri Lanka, India, Pakistan, Kenya, Tanzania, Peru, and Uruguay. With the advent of the food crisis in 1972, developing countries have been forced to focus greater attention on the agricultural sector and have taken various actions to increase food production. As a result, some disincentives to food production have been eased.

The results of our survey are discussed by country in appendixes I through VIII. The following chapters illustrate disincentive policies and institutional factors relating to pricing, taxes, exchange rates, restrictions on internal food movements, credit, research and extension services, land tenure, and the impact of food aid on agricultural production.

Governmental policies and institutional factors relating to food production are complex and interrelated with other aspects of the economy. Thus, our discussion necessarily oversimplifies the problems and does not purport to consider all relevant technical aspects. Our objective is, however, to illustrate (1) how greatly and critically governmental policies and institutions affect developing countries' ability to provide urgently needed food and (2) the need for those countries to act to change those policies and institutions and the need for donor agencies to press for such actions when providing assistance to the food and agricultural sector.

CHAPTER 2

PRICING

The most significant and widespread disincentives to expanded food production in developing countries are governmental pricing policies, such as (1) domestic procurements at prices considerably below prevailing market prices, (2) government-subsidized retail sale to the urban consumer, (3) forced lagging of producer prices behind general inflation rates, and (4) import of major commodities and subsidized sale to the urban consumer. These policies, aimed at providing cheap food for the urban consumer, act either directly or indirectly to depress prices received by the producers.

The adverse effects on production of governmental policies of cheap food for the urban consumer and of governmental failure to provide price incentives to farmers have been discussed in several FAO reports. The following statement from a 1970 report is typical.

> "In almost all developing countries there has been considerable reluctance to raise producer prices for basic food products because of the effect on consumer food prices, which are a very large component of the overall cost of living. Higher food prices thus lead to pressure for higher wages, and this is perhaps the most important aspect of the need to take into account the terms of trade between agriculture and industry. It is clear, however, from recent experience that reluctance to raise food prices (encouraged in some case by the ready availability of food aid) has contributed to food shortages in many countries, by providing producers with insufficient incentive to increase production. The resulting shortages have brought increases in food prices that are perhaps greater than those that would have been necessary to bring forth a sufficient increase in domestic production."

In February 1975 both the President's Economic Report and the World Bank's sector policy paper on rural development reported that developing countries had discriminated against their agricultural sectors and hindered rural development by their trade and domestic price policies.

The overall relationship between input and output prices within agriculture and the terms of trade between agriculture and other sectors of the economy should stimulate growth. However, all too often government buying and pricing policies work against increasing agricultural production.

Although governmental policies controlling food prices are designed to protect the consumers, high black market prices and smuggling of food products reportedly existed in most of the eight countries visited because low producer prices did not stimulate sufficient production.

Food prices are normally controlled through a governmental policy--such as subsidizing the retail price or maintaining fixed prices at the production, wholesale, or retail levels--which maintains desired retail prices.

Peru has followed a policy of maintaining fixed prices. The Government-set prices for potatoes, a primary food commodity, remained unchanged for extended periods while the cost of inputs increased sharply (for example, pesticide and fertilizer costs doubled in a single year). Apparently, Government prices did not cover producer costs and farmers stopped planting potatoes for market. Potatoes have been in short supply and have reportedly been sold at some retail outlets at black-market prices triple the controlled retail price and could sometimes be purchased only if certain other purchases were made.

Kenya also has controlled prices paid to producers. These prices were generally considered too low to serve as an incentive for production. A Kenyan official said that, before January 1975 price increases, producers lost money if they used fertilizers.

Most U.S. officials contacted in India thought that the Government effort to hold down the prices received by farmers for food grains, primarily wheat and rice, was the primary disincentive restricting increased food production.

In 1974, in a move to boost Government wheat procurement, India established wholesale and retail price ceilings at nonincentive prices and ordered wholesalers to turn over half their wheat purchases to the Government at well below the market price. This policy encouraged farmers to shift to other crops (despite lower yields) and to hoard grain. Farmers and middlemen have shown continued dissatisfaction with procurement prices and have attempted to circumvent prescribed policies.

The 1974-75 Indian procurement prices for wheat and rice were considered by most farmers to be inadequate in view of the scarcity and higher prices for fertilizer and other needed inputs. Farmers generally cannot afford the high fertilizer prices and are unwilling to assume the risks associated with using the high-yielding variety techniques. As a result, yields are lower and the Government bears an increasing burden to finance food grain shortages through costly imports.

Both commercial and concessional imports have been used to support food consumption because developing countries' domestic production has not kept pace with demand. These imports have often been provided to the urban consumer on a subsidized basis at a price sometimes below the price the government pays the domestic producers. This policy discourages domestic producers from expanding production.

Pakistan, for example, controls prices primarily through subsidized retail outlets at the urban level with both domestic and imported commodities. U.S. Public Law 480 imports of several commodities have been used to maintain low consumer prices.

Sri Lanka also has a subsidy system under which it provides rations of free or subsidized food to all its people, including farmers. Only part of the required food is produced domestically; the rest is obtained through imports. Prices paid to farmers are below world market prices, and we were told that increases are necessary to stimulate production.

The stated Indonesian policy is to assure farmers an adequate incentive for rice production by supporting an appropriate rice floor price while protecting consumers by controlling prices at the retail level through ceiling prices. In its pricing policies during the past several years, Indonesia has placed more emphasis on protecting the consumers than on supporting the producers. Rather than carrying out a vigorous policy of domestic rice procurement to support producer prices at incentive levels, the Government has imported large quantities of rice (over 1 million tons annually) and sold it domestically at a fraction of the cost. Other items, such as wheat and sugar, are also subsidized. These actions have depressed the prices received by Indonesian farmers.

In some instances in which the governments have taken action to increase producer prices, the announcements of such increases have been too late to provide an immediate incentive; in other instances farmers lacked confidence in the government because it failed to insure immediate payment of the purchase price. In Sri Lanka, for example, most price changes over the past 2 years have been poorly timed and have not provided an immediate incentive since they were announced after planting.

Similarly, Uruguay announced in August 1973 that the new price to producers for wheat would be the same as the international price, but the crop had been planted in June and July. However, the Government at least established credibility by paying the announced prices. The area planted then increased 56 percent from 1973 to 1974.

In some cases, governments seek to compensate the farmer through subsidies on production inputs. Frequently, however, such subsidies lead to undesirable distortions in the economy, are costly to implement, and are available only to those in contact with and enjoying the confidence of the organization that provides them. The small farmer is typically excluded from the advantages.

Most of the eight countries had consumer or input subsidies. Pakistan subsidizes the consumption of imported as well as domestically produced food. It has also subsidized such agricultural inputs as water, fertilizer, and pesticides. However, these subsidized inputs have been inadequate to establish a cost-price relationship to stimulate expanded production and have added to the Government's burdensome subsidy system.

USDA attributed the critical food situation in developing countries, in part, to their longstanding policies of maintaining domestic prices below international levels. A December 1974 Department report stated that governments in many developing countries consider a low and stable retail price for basic foods to be an important objective, which they achieve by controlling prices in various ways. It is feared that great increases or fluctuations in the cost of food would require increases or fluctuations in wages, which would disrupt general economic development. The report added:

> "While these policy goals are understandable * * * their impact on the food production capacity and import pattern of the developing countries needs to be carefully evaluated * * * (for example) there is a close correlation between low rice yields and low rice prices and high prices of fertilizer relative to the price of rice."

* * * * *

"While international food prices were relatively stable during the two decades prior to 1972, domestic farm prices in the developed countries were generally above international price levels, and those of many developing countries were below these levels. This phenomenon cannot be dissociated from the problems of surplus food production in the developed countries and growing food deficits in the developing and centrally planned countries--generally recognized as the key problem needing solution if the world food situation is to improve.

"It will obviously not be a simple matter to relax the long-standing domestic price policies. * * * For the developing countries the problem is especially difficult since the implication is that basic food prices would have to rise somewhat above the levels of the past. But the rise in food prices implied for the developing countries would be relatively small, and prices would be considerably lower than at present. Since more than half the population of most of these countries is made up of farmers, the improvement in incomes would be widely distributed.

"Regardless of the difficulty involved in a worldwide readjustment of prices, the persistent and expanding imbalance in food production * * * must be corrected, and the above analysis indicates that part of the correction must involve price adjustments."

Governments in many developing countries have increased producer prices to reduce the severity of price disincentives, particularly since the critical food situation of 1972 and 1973 with spiraling food prices and doubtful continued availability of either commercial or concessional food imports. For the countries we examined, however, the adequacy of the actions taken had not yet been established. When the government controls prices paid to producers, continuous evaluation of the adequacy of such prices is necessary, especially during periods of rapidly increasing production costs.

Providing adequate economic incentives to farmers will be an essential element for developing countries to realize their production potential for urgently needed food products.

CHAPTER 3

TAXES

A number of fiscal instruments are employed to directly tax agriculture: taxes on land area, land value, and net income; marketing taxes; export taxes; special assessments; and taxes through marketing boards. Export taxes are popular with governments because they are administratively easy to collect, especially where small producers predominate in the agricultural sector. However, export taxes distort agricultural incentives and, in particular, restrict production for export.

Indonesian export taxes, which yielded about $72 million annually, were assessed against all agricultural exports. The taxes were levied at a rate of 10 percent on prices determined by the Ministry of Trade, which are supposed to correspond to actual world market prices. The food crops primarily affected by the tax are cassava, copra, sugar, soybeans, and peanuts. An economic assessment stated that, since Indonesian exports do not play a dominant role in world markets, export taxes are clearly passed on down to producers and must consequently have an adverse effect on production incentives.

A USDA report said that, in countries where agricultural or food exports are one of the few sources of government revenue, these exports are sometimes taxed or internal prices manipulated in such a way that prices received by farmers are below what they would be without the tax. It listed the following examples: Thailand (rice), Egypt (rice and cotton), Argentina (grains and meat), and Africa (peanuts and other crops).

Such taxes increase the price of the exported commodity, which decreases the amount a buyer can purchase with a given sum of money. A commodity in short supply is not seriously affected, but when a surplus exists on the world market, prices inflated by high export taxes cause buyers to seek other sources (1) resulting in a loss of needed foreign exchange, (2) creating in-country surpluses, and (3) influencing producers' expectations about future demand (thus, farmers grow less than they otherwise would).

The situation in Pakistan, where agricultural export taxes provide 80 percent of the foreign exchange, is another example of the negative impact such taxes can have. During a period of rising international cotton prices, the Government nationalized cotton exports and raised export duties to absorb the difference between farm prices and international prices rather than pass increased profits to farmers and middlemen. When the world market price for cotton declined, exports between 1973 and 1974 declined 25 percent for raw cotton and 45 percent for cotton yarn because the Government did not adjust export duties downward.

Some experts suggest that a properly constructed agricultural land tax is the best type of tax since it can function without destroying incentives related to agricultural output. But few countries have effective land taxes.

FAO has said that taxes can be applied to place heavier burdens on the landowners who neglect their land and to provide relief for those who invest in improvements or who produce beyond the norm. Methods of land taxation that would do this are (1) exempting improved land from a higher tax rate for a certain period, (2) taxing unused land at higher rates, or (3) taxing land on its potential rather than its output.

The Imputed Land Productivity Tax (IMPROME), in effect in Uruguay since 1971, is a progressive land tax designed to increase agricultural productivity by prompting inefficient producers to either produce more to pay the tax or else give up the land. This tax replaced the export tax, which had been the country's major revenue producer.

The IMPROME tax is based on the estimated productivity of land considering farm size, productivity, access to market, and soil condition. Incorporated in the tax are deductions for using modern inputs and techniques and a discount for owners of 2,500 hectares or less.

Taxation policy is clearly a complicated issue which must be determined in light of conditions in each country. Taxation should not remove all incentive for agricultural development. In fact, it can even be designed as an incentive to make land use more intensive while providing needed revenue. Furthermore, measures taken by one governmental branch to provide incentives to agricultural production should not be blunted by taxation policy of another branch.

CHAPTER 4

EXCHANGE RATES

Monetary and trade policies have affected production in some developing countries by making food imports relatively cheap and by discriminating against foreign-exchange-earning food and agricultural exports. For example, persistent and sizable overvaluations of foreign exchange rates, such as in Kenya, lower the prices received by farmers for agricultural exports and make imports cheaper.

Overvalued exchange rates can act as a form of agricultural taxation. When a country maintains a single exchange rate that overvalues domestic currency, the exporter is "taxed" in that he receives less local currency than if the rate were more realistic, while importers are "subsidized" by being able to purchase foreign goods below their "real" value. According to one tax expert, this approach has been used in Argentina and Pakistan to transfer real income from the exporting agricultural sector to the importing, and largely nonagricultural, sector.

Sri Lanka used a two-tiered exchange rate system for imports and exports which favored food imports and discriminated against foreign-exchange-earning crop exports. The traditional plantation crops--tea, coconut products, and rubber--accounted for 80 percent of Sri Lanka's exports and have been used to pay for food imports, but the producers did not receive the most favorable exchange rate which was granted to some other exports. An economic assessment stated that the total weight of taxes, plus the exchange rate treatment, undoubtedly acts as a disincentive to increased output and greater efficiency.

CHAPTER 5

RESTRICTIONS ON INTERNAL FOOD MOVEMENTS

Restrictions limiting movement of food from surplus to deficit areas discourage farmers in the surplus areas from increasing production because of the impact on producer prices. Barriers between provinces and states are used by governments to implement their cheap food policies for consumers by keeping prices low in the marketplace and by attempting to force farmers to sell to the government at low prices for distribution through government price-controlled channels.

Indonesia's prohibition against interisland shipment of rice except under Government auspices has greatly restricted the movement of rice from surplus production areas to deficit areas. The Government has preferred to supply the deficit areas with imported rice (about 1 million tons a year), which it sells for less than the import cost.

India also had restrictions on interstate movement of food grains and restrictions on interdistrict movement in some states. Details of the restrictions vary from state to state, but the intent was to keep prices low and to expedite Government procurements. As a consequence, farmers in surplus growing areas have limited incentive to increase production since lower prices usually result. India also is reported to sometimes seek international relief for starving areas while some districts maintain stocks of surplus food grain.

CHAPTER 5

CREDIT

Developing countries' credit requirements are increasing rapidly because of the development of new, more productive technologies and the corresponding need for seeds, fertilizers, pesticides, irrigation, implements, and machinery.

Credit is generally limited for small farmers, however, and they are generally thought to spend about 20 percent of what is required on inputs because they simply do not have the resources. Without access to credit, small farmers have little opportunity to purchase the costly inputs necessary to significantly increase production or to successfully adopt the high-yielding technology of the Green Revolution. Even though credit can remove a financial constraint to increasing the productivity of small farmers, efficient use of production credit depends upon such other factors as availability of inputs, a marketing system, and farmer training. As stated by AID, what is lacking is an integrated agricultural system responsive to the needs of small farmers.

In some developing countries, such as Kenya and Tanzania, commercial agriculture is largely oriented toward export crops rather than crops for domestic consumption, and export crops receive most of the credit. In Kenya only about 200,000 of the 1.2 million small holders have access to any formal credit, and little or no credit is available from any source for subsistence crops.

Total credit available to farmers in India has been increasing, but distribution has been uneven--most has gone to the largest farmers. Most Indian farmers work small farms and are unable to afford even minimal amounts of fertilizer.

The following statistics indicate the difficulty the small farmer has in obtaining credit in developing countries.

--In Pakistan the 60 percent of the farmers owning the smallest farms got only 3 percent of the institutional credit.

--In Bangladesh, only a few farmers hold more than 3 acres, but these farmers received more than 80 percent of the loans from the Agricultural Bank and the cooperatives banking system.

--In the Philippines the 27 percent of the farmers owning the largest farms obtained 98 percent of the institutional credit.

--In Thailand those receiving institutional credit held, on the average, 60 percent more land than the average farmer.

--In Tunisia 90 percent of the farmers could not qualify for institutional credit.

--In Brazil 3 percent of the farmers got 34 percent of the loans.

Studies of Chile, Colombia, Ethiopia, and Honduras indicated that the larger farmers in those countries were also the main beneficiaries of institutional credit.

Interest rates in some developing countries, such as Kenya, Peru, and Indonesia, were fixed at artifically low levels; thus, producers were encouraged to substitute capital for labor to a greater extent than warranted by their relative scarcities and workers are deprived of employment needed to obtain available food. Kenya's low interest rate policy also limited credit to small holders by creating a money flight from the rural to urban areas, by not recognizing higher costs involved in lending to small holders, and by not recognizing the higher risk factor.

In Indonesia subsidized credit was offered to compensate rice producers for low prices. The larger farmers primarily received the compensating benefit because smaller farmers were considered high-risk borrowers. Small farmers and tenants derive little or no benefit from low interest rates when they lack the collateral, complementary resources, or political clout of the larger farmers.

Although it carries interest rates that are 3 to 20 times higher, noninstitutional credit (supplied by relatives, friends, merchants, landlords, and money lenders) is used more than institutional credit in practically all developing countries. This fact seems to indicate that borrowers would pay higher institutional interest rates if other conditions were conducive to the use of institutional credit.

Administrative problems in obtaining institutional credit, however, have affected its use in some countries. Rigid, cumbersome, and time-consuming procedures deter farmers from obtaining credit they need to increase production. These procedures create delays (such as noted in Peru, where credit sometimes does not become available until after planting time) and contribute to the extensive use of noninstitutional credit.

Clearly, many complex problems are involved in providing credit to farmers, especially small farmers. But if, as indicated by the many authorities, adequate credit is a prerequisite to providing enough food, then the governments will have to face up to these problems.

CHAPTER 7

RESEARCH AND EXTENSION SERVICES

Developing countries could greatly help realize their potential for food production increases by improving their extension services programs and by devoting more resources to research on adapting new varieties and techniques to individual country conditions and needs.

In discussing how developed countries can help developing countries produce more food, the President's February 1975 Economic Report said that the immediate challenge was to develop national capabilities for agricultural research. Generating and applying new production technology, under the ecological and economic conditions in which it will be used, are the keys to agricultural development, particularly where land constraints exist. FAO has also reported that a bottleneck limiting yield increases is the lack of adaptive research and seed reproduction.

The World Bank has agreed, stating that insuring the continuing success of most rural development programs requires a constant flow of new, field-tested technical knowledge relevant to small holders. Factors especially important to small farmers are risk-reducing innovations (better pest- and weather-resistant crops); more intensive research into the so-called poor man's crops, including sorghum, millet, cassava, pulses, and upland rice; and better advice on simple improvements in crops husbandry and soil conservation. Also, major improvements in production technologies and product mixes for arid lands, some mountain regions, areas of low-quality soils where shifting cultivation is practiced, and rain forest areas must be evolved.

In Tanzania, research programs have suffered from lack of governmental support and funding. AID reported that additional research is needed on farming practices, since yields are well below potential. The AID-supported maize and legume research project was adversely affected by budget cuts.

Research is of little value if extension services are inadequate to disseminate the results to the growers. Extension services in the countries visited were generally inadequate or lacking for the small farmer because there are too few extension workers, and they are generally poorly paid and lack adequate support facilities.

For example, Uruguay has five agricultural research centers; however, the lack of an effective organized extension service prevents much of the information developed at the centers from reaching the growers.

In Uruguay we were told that county agents (1) normally work a 6-hour day, (2) rarely visit farmers because they have no transportation or an insufficient transportation allowance, and (3) are paid so little that most need two jobs. According to one county agent, additional personnel, increased salaries, and literature for distribution were needed.

Tanzanian extension agents were not getting out to the farmers. They lacked motivation, transportation, and demonstration materials. In Sri Lanka too, few extension agents visited farmers because they had no means of transportation.

Some extension agents act as enforcement officers for other governmental policies and are therefore viewed with suspicion, as in Pakistan, where extension workers directed farmers to plant certain crops.

Some developing countries' extension services, such as those of Kenya and Tanzania, have concentrated on export crops to bolster their foreign exchange and have not effectively aided the small farmer growing crops for domestic consumption.

Kenyan extension services have been primarily directed toward such export crops as coffee, tea, and pyrethrum (insecticide). Even though small holders are said to be the key to future agricultural development, Government extension services have devoted little attention to them except on cash crops. Officials generally feel that the Government stress on extension services for the larger holders and cash crop production has caused the food subsistence sector to suffer.

The weakness of Tanzania's food crop extension services was demonstrated by a World Bank project planning team. The team estimated that, if farmers planted crops on time, used proper weeding and furrowing methods, spaced plants properly, and used improved seed, maize yields could be doubled to 28 bushels per acre with little additional capital investment. Using fertilizers and pesticides would produce even more dramatic results. Improving research and extension services will clearly be one factor in increasing food production, especially at the small farmer level. The World Food Conference recognized the problems when it adopted a declaration calling on each developing country to "develop adequate supporting services for agricultural and fisheries development, including those for education, research, extension and training * * *"

CHAPTER 8

LAND TENURE

Land reform is concerned with changing the institutional structure governing man's relationship with the land. It involves intervening in the prevailing pattern of land ownership, control, and use to improve land productivity and broaden the distribution of benefits.

FAO has reported that the most important disincentive to increased agricultural production in many developing countries stems from forms of land tenure which leave the cultivator only a small fraction of the benefits steming from increased investment or labor. Land tenure problems were seen as affecting production because of their influence on investment decisions and the efficiency of resource use.

Most tenants and sharecroppers in the poorer countries share their output with landowners and many operate under insecure tenancies. Therefore, according to the World Bank, tenants' incomes will usually be even lower than those of small operator-owners, and the amount of land required to produce an income over the poverty line will be correspondingly larger. If the tenant has no clear title to the land, or is liable to be evicted or to have his rent increased arbitrarily, he is unlikely to increase his output, to make needed medium- or long-term fixed investments, or to have much of an interest in building up the fertility of the soil.

In Pakistan we were told that share tenancy is a disincentive to increased farm productivity and agricultural development because the landowner usually takes half of any production increases. In India, a further deterioration of tenurial conditions including the banishment of some tenants from the land was reported in May 1974. Therefore, tenants are discouraged from making improvements on the land.

Landlords are similarly discouraged from making investments since they also receive only part of the benefits. Land reform cannot only remove these disincentives, but when it gives the tenant farmer or landless laborer his own land, it also provides the greatest possible incentive by giving him the status and security of an owner-farmer and the assurance that he will reap the fruits of his own labor.

When large-scale redistribution of land is not possible, land tenure conditions can be improved by replacing a sharecropping arrangement by a fixed rent or by increasing the producer's share of the output. Tenancy regulations to secure tenancy would also remove disincentives to the producer's making long-term improvements. Unfortunately, while tenancy regulations may be a useful first step in land reform, FAO says they are very difficult to enforce.

Extreme disparities in farm size were also cited as being deterrents to agricultural production increases. In many countries, such as some in Latin America, such disparities are pronounced: large estates occupying the best land are only partially cultivated, while nearby peasants eke out a bare livelihood on intensively cultivated small holdings often insufficient for their needs.

Some authorities (e.g., in studies on Latin American countries) indicate that yields are generally higher on smaller holdings than on larger holdings. The figures indicate that production would substantially increase if large holdings were redistributed.

In some developing countries, however, output dropped after land redistribution because the redistribution was not accompanied by complementary measures, including such support services as agricultural extension, training, and facilities. Although land is an important factor of production, other factors must also be provided. Immediately after land reform, the new owners are usually workers with little experience in farm management and little capital. Poor management and lack of capital result in an inefficient resource allocation that may, at least initially, cause output to decline.

Since the early 1960s the Kenyan Government has broken up many large foreign-owned farms and settled Kenyans on them in small acreages. However, the Government has not supported the change in land tenure with a coordinated and intensive shift in Government services from large to small holders.

Some aid donors believe that even with producer price increases agricultural production in food crops will not be greatly increased because of the lack of effective support services, especially extension services and credit, to these small holders.

The Tanzanian Government required farmers to move to cooperative villages (ujamaas). Not only did the Government fail to provide promised services, but it forced the farmers to move from their existing holdings before harvest, in some cases so far that they were prevented from returning to harvest their crops. Also, the living quarters of the ujamaas were so situated as to require a long walk to the fields, thus lessening cultivating time. Some settlements were located in areas without water, and others had their manpower, needed to cultivate the soil, siphoned off to build communal projects.

These factors resulted in a higher than anticipated decline in agricultural production.

Few developing countries have the finances or trained manpower to undertake other than piecemeal land reform. Thus, uncertainty is created and land investment is likely to slow down.

Because of the expropriation of landholdings in Peru, many small and medium property owners are concerned about the uncertain interpretation of the agrarian reform law and the expropriation of coastal farms below the stated limit.

India's land reform program has discouraged the development of more efficient farming practices because farmers fear losing their land. The program provides that a family holding not exceed 18 acres of irrigated land capable of producing two crops a year, 27 acres of irrigated land capable of producing only one crop a year, or 54 acres of nonirrigated land. Some farmers were reportedly delaying the installation of irrigation facilities to avoid losing part of their land.

The most formidable obstacle to land reform is the resistence of landowners, who tend to strenuously oppose land reform legislation and who can delay the execution of the law once it has passed.

In Colombia, for example, the Agrarian Reform Institute is responsible for land redistribution. The number and complexity of the laws and the lack of financial support for the Institute have enabled large landowners to successfully fight expropriation of their holdings. The Institute has been partially successful in issuing land titles to public lands and in June 1974 AID said:

> "One is tempted to conclude that the issuance of titles to public lands has become synonymous with agrarian reform rather than reform being considered as consisting of changes in the structure of the sector through changes in the pattern of land ownership and farm size."

India's Congress has promised land to the tiller and passed ceiling laws, but no great improvement has ocurred. Hope for genuine land reform has all but vanished, because the big landowners are so powerful that it is assumed they will block any substantial land redistribution. They have generally circumvented legal limits on the size of landholdings.

CHAPTER 9

IMPACT OF FOOD AID ON AGRICULTURAL PRODUCTION

Since 1954, the United States has provided direct food assistance to needy countries under Government-financed programs at a cost of $27 billion. Leading world authorities now indicate that such food assistance by the United States and other countries has hindered developing countries in expanding their food production and thus has contributed to the critical world food situation.

In discussing the developing countries' reluctance to raise producer prices because of the effect on consumer prices, a 1970 FAO publication stated that it is clear

> "from recent experience that reluctance to raise food prices (encouraged in some cases by the ready availability of food aid) has contributed to food shortages in many countries, by providing producers with insufficient incentive to increase production. The resulting shortages have brought increases in food prices that are perhaps greater than those that would have been necessary to bring forth a sufficient increase in domestic production."

Recognizing the disincentive aspects of food aid, the proposals prepared for consideration at the World Food Conference stated that

> "past experience has highlighted the need for safeguards to make food aid more effective in achieving its main objectives and at the same time avoiding any disincentive effect on (i) food production in recipient countries, * * *. Since one of the important aims of development through food aid is that adequate food supplies should become eventually available from domestic production, the long term food aid policy should in no case act as a disincentive to food production in the recipient countries."

The consequences of food aid on developing countries' agricultural production were discussed in an October 1974 report of the Secretariat of the Organization for Economic Co-Operation and Development. That report said:

--Food aid, especially bulk deliveries, has sometimes been criticized because of its possible adverse effects on developing countries' agricultural production. Such adverse effects could include (1) increasing the supply of a commodity on the local market and thus reducing the incentive to produce and (2) relieving the recipient government's need to make necessary, but politically difficult, changes in the institutional structure and affecting its willingness to give agricultural development an appropriately high priority.

--The statistical data available suggests that food aid probably has not had a serious dampening effect on most developing countries' agricultural production simply because it has represented, on the whole, only a small fraction of domestic food consumption.

--Certain types of food aid possibly allow governments to (1) postpone essential agricultural reforms, (2) fail to allot to agricultural investment sufficient priority, and (3) maintain a pricing system which gives farmers an inadequate incentive to produce. If, for instance, governments try to alleviate inflation by controlling food prices, the internal terms of trade are turned against the rural sector; farmers and peasants, often the poorest members of the community, lose their incentive to produce; and output is reduced. Some studies indicate that this happened in certain countries during the early sixties. However, evaluation research has been limited and is generally out of date. Furthermore, many factors other than food aid influenced agricultural progress.

--Food aid may have also contributed to the shifting of public tastes away from locally grown foods to imported ones (for instance, from millet to wheat). This particularly tends to happen in the case of urban populations, which receive the bulk of food aid. The long-run effect of this tendency is to increase the demand for imports and to create an additional strain on the balance of payments.

--The consequences of food aid on developing countries' agricultural production need further investigation. At first sight, these consequences have seemingly been marginal, but only a thorough evaluation will allow a firm conclusion.

U.S. authorities also have recently acknowledged the need to consider the disincentive aspects of food aid. For example, in discussing how past surpluses have provided large amounts of food aid, USDA stated in a December 1974 report: "These surpluses also contributed indirectly to the developing countries' growing dependence on grain imports by permitting them to postpone needed agricultural development programs." The report then stated under its discussion of policy issues that: "The disincentive effect that longrun food aid might have on agricultural production in the recipient country must be considered."

In discussing food assistance, the February 1975 Economic Report made the following statement regarding the program's effect:

> "The costs of the program have now become more explicit, with the result that more rational policy choices may be made. The question is how desirable it is to provide food aid beyond the commitment to promote food security under conditions of stress, since continuing food aid can reduce incentives to strengthen the agricultural sector of the recipient country."

The March 1975 International Economic Report pointed out that many developing countries had kept food prices artificially low to satisfy their urban populations but had failed to stimulate domestic agricultural production. And to continue their urban-oriented policies, these countries had had to rely increasingly on concessional aid from developed countries.

Our review confirmed the existence of extensive governmental policy and institutional disincentives to the expansion of food production. And while some reform measures were being taken in the countries we visited, the real impetus behind these measures was the critical world food situation that began in 1972 and the resulting decrease in food aid.

U S. officials in both Indonesia and India thought that the massive food aid provided through Public Law 480 during the 1960s restricted agricultural growth in those countries by allowing the governments to (1) postpone essential agricultural reforms, (2) fail to give agricultural investment sufficient priority, and (3) maintain a pricing system which gave farmers an inadequate incentive to increase production.

The United States has provided Indonesia more than $975 million worth of agricultural exports. Food aid from all sources represented 46 percent of its cereals imports in 1970, 74 percent in 1971, and 33 percent in 1972 and from 3 to 5 percent of its cereals consumption during these years.

Between 1957 and 1971, Public Law 480 food grains to India totaled 59 million tons valued at $3.7 billion and accounted for three-fourths of India's food grain imports during the period. Food aid was resumed in 1975; the February 1975 proposal was for the United States to furnish 1.3 million tons of wheat and rice valued at about $400 million. Officials felt that they could not recommend that India do more on its own to solve the food problem.

Similarly, Pakistan has received massive amounts of food aid while maintaining disincentives to increasing production through its pricing and other policies. The United States has provided more than $1.6 billion, primarily in grains and related products. This assistance has helped the Government to maintain the subsidized food system for the urban consumer and to hold producer prices well below those of other countries and the world market.

Sri Lanka, which has traditionally provided free food to its people, has received more than $149 million in U.S. food assistance. Food aid from all sources accounted for 8 percent of its cereals consumption in 1970, 17 percent in 1971, and 9 percent in 1972.

Public Law 480, title I. requires that recipient governments commit themselves to specific self-help measures to increase agricultural production. However, the existence of extensive governmental policy and institutional disincentives to the expansion of food production raises doubts about whether this requirement has been effective in bringing about agricultural reform.

The conflicting and subjective reporting on Indonesian self-help measures increases those doubts. For example, the President's 1971 annual report on Public Law 480 agricultural export activities attributed Indonesia's exceeding its production targets for the third straight year to continued improvement of price incentives. According to the report, the price incentive program, instituted in 1970, had been effectively implemented and provided sufficient incentive for farmers to use fertilizer, pesticides, and new rice varieties.

The President's 1973 report said that several policy changes, including raising the floor price of rice, were made to provide more incentive to farmers for using progressive agricultural techniques. However, the report added that from 1968 to 1972 the price of rice increased only about 7 percent wh[illegible] the cost of living increased about 80 percent and that rice farmers' terms of trade were steadily worsening. In early 1973, because the Government was unable to procure domestically the amount of rice necessary for an effective buffer stock operation at the existing floor price, the price was raised about 50 percent.

These reports indicated that Indonesia was providing adequate price incentives, but did not report that in 1973 (1) the Government's procurement price was substantially below the market price, (2) farmers were reluctant to sell to the Government, and (3) the Government then ordered that farmers sell to it and reportedly used soldiers to enforce that order. The United States provided Indonesia about $128 million in agricultural exports under Public Law 480 in 1973.

The adverse impact of food aid on developing countries' agricultural production should seriously concern both the developing and developed countries. In contrast with emergency food aid, of particular concern should be food aid to meet chronic food deficits where the level of incentives could affect the generation of production increases over the long term. The World Food Conference recommended that donor countries insure at least 10 million tons of grains as food aid a year and provide adequate quantities of other food commodities. At least 8.8 million tons of grains were committed for 1975, including $1.6 billion worth committed by the United States. If continued food aid of this magnitude is not to continue to adversely affect production, then greater consideration must be given to the adequacy of developing countries' efforts to realize their own production potential.

In this regard, the President reported to the Congress in May 1975:

> "There is a sentiment within both the legislative and executive branches that changed circumstances and an uncertain future require a comprehensive review of the food aid program. Some feel that PL 480 ought to be replaced with new legislation reflecting the absence of surpluses. While there is general agreement that we ought to provide food in emergency humanitarian situations, there is less agreement about the quantity and the purpose of the remainder of our food aid. In viewing food aid as an alternative or supplement to AID funds, the possible disincentive effect on the recipient country's own agricultural production must be considered. To make sure that food assistance complements, rather than distorts, other development efforts, it must be examined by both ourselves and the recipient countries in the context of development policy. This guiding principle was added to the Foreign Assistance Act in 1973 and is being given increasing attention. At the same time attention must still be given to the impact of any changes in PL 480 on U.S. domestic agriculture. Whether or not the food aid legislation is revised, there is room for our efforts to increase food production in developing countries. In so doing, it may be wise to keep in mind that greater emphasis on self-help requirements for food aid designed to increase less-developed country food production may in the long-run be the most humanitarian course."

CHAPTER 10

CONCLUSIONS, AGENCY COMMENTS AND OUR EVALUATION, AND RECOMMENDATIONS

CONCLUSIONS

Developing countries neither produce, nor have the foreign exchange to buy, adequate food to feed their rapidly increasing populations. Aside from the long-term solution of curbing population growth, the best way for these countries to alleviate the problem is to realize their production potential.

There are complex problems involved in realizing that potential--many, such as inadequate storage, transportation, and communications systems, relate to the countries' stage of economic development. However, in addition to these general developmental problems common to developing countries, certain governmental policies and institutional factors either limit economic incentives or are disincentives to farmers increasing their output. And these policies and factors can be changed if the governments have the political will to do so.

Production potentials can be more fully realized only if producers are provided adequate incentives and supporting services. For instance, price policies for farm products need to be formulated and implemented to insure that prices are fixed at incentive levels and that such prices are actually received by farmers.

Farmers in developing countries have clearly had some incentive to produce, since total food production has increased over the past 20 years (though it has just kept pace with population growth). Also, without question, the United States and other donors, through their financial and technical as well as food assistance, have to a degree been instrumental in bringing about these increases. However, even after billions of dollars of such assistance, developing countries continue to have policies and institutional factors that are major disincentives to expanded food production.

And while the donors have contributed to production increases, they have also contributed to the continued existence of disincentives by providing cheap food from their surplus production. Such food aid has adversely affected agricultural production by allowing recipient countries to postpone agricultural reforms needed to realize their production potential. And it has only been when food aid was reduced and food availability became highly uncertain, such as since 1972, that there has been any real impetus in the developing countries toward removing disincentive policies and increasing production.

The important question now is: What can the developing countries themselves do to change disincentive policies and institutional factors and what can external donors do to help bring about these necessary reforms?

Donors generally state that the developing countries themselves must have the political will and courage to correct disincentive policies. We agree that political will is required because the problems facing the developing countries are difficult and involve many complex and interrelated issues. But these are matters that the governments can deal with.

To insist that governments deal with these problems and to provide a proper environment for financial and technical assistance to be used most effectively to increase food production require courage and political will by the external donors. Donors indicate the desire and intention to help, but they are reluctant to require effective action by developing countries as a condition for external assistance. Instead they avoid taking a firm stand by indicating that developing countries have the responsibility to act.

If the developing countries are to be convinced that they must make agricultural reforms to realize their production potential, major donors, including international organizations and financial institutions, must agree that such changes are necessary and work together to bring about the changes. As long as the developing countries can obtain external assistance by playing off one donor against another, they may never be impelled to take the hard steps necessary to increase their domestic production.

Accordingly, continued external assistance to developing countries' agricultural sectors should be predicated upon governments providing adequate economic incentives and supporting services for realizing their production potential. And to insure that concessional food aid does not act as a disincentive by permitting governments to postpone needed agricultural reforms, such assistance should be provided in conjunction with specific agricultural development plans and after firmly determining that producers have adequate incentives.

AGENCY COMMENTS AND OUR EVALUATION

The Department of the Treasury agreed with the general thrust of the report, its conclusions, and its recommendations. The Department of Agriculture also agreed with the report's findings. (See apps. X, XI, and XII.)

The Department of State and the Agency for International Development in their joint comments (referred to herein as State/AID) agreed that incentives are an important economic issue in developing countries' food production and that there is a need to improve developing countries' policies to help increase food production. (See app. XIII.)

State/AID were concerned that our report overstates the importance of incentives and suggested that a balanced policy that meets the needs of both the farm producer and the urban consumer is required.

State/AID added further that agricultural development should be pursued in the context of a coherent and comprehensive strategy for agricultural and overall economic development for the country. State/AID also pointed out the concessional food aid does not necessarily have to serve as a production disincentive and frequently has had many positive effects.

Our report is not meant to suggest that governments adopt policies of maximizing incentives to the exclusion of all other developmental requirements and for the sole benefit of farmers. We fully concur in the need to approach the problem of increasing farm production as part of an integrated development strategy. It is our belief, and the essential point of this report, that (1) incentives form a primary and essential element of any agricultural development strategy and (2) the existence of disincentive practices and policies detracts from the development process.

Accordingly, we believe there is a need to place more emphasis to convince food deficit countries to adopt policies and programs which provide adequate incentives to stimulate increased farm production. This need was well stated in the President's May 1975 report, "U.S. Actions Affecting the Development of Low-Income Countries," which stated that

> "Although AID technical and financial assistance may be helpful in stimulating increased food production, developing country policies will be the determining factor. Many less-developed country governments choose to maintain artifically low food prices for urban dwellers. To do so, they must use the government budget either to subsidize the consumer or the price paid by farmers ~~for~~ fertilizer and other inputs, or pay a stiffer price in the form of low production resulting from insufficient incentives to farmers. Low prices to farmers deter them from making maximum use of fertilizer and other expensive inputs and

frequently prompt them to smuggle part of the crop out of the country or to a domestic black market. To cover the national shortfall, the government is then forced to purchase food from abroad, often paying foreigners in scarce foreign exchange a price it would not pay its own farmers. While this practice may have been possible in the days of plentiful concessional food and low world market prices, it is an expensive procedure today, draining scarce foreign exchange which might otherwise be available for development purposes."

RECOMMENDATIONS

We recommend that the Secretaries of State and Agriculture and the Administrator of AID, in determining the level of agricultural development assistance and concessional food aid, (1) place maximum consideration on the efforts of developing countries to improve their agricultural production, make needed agricultural reforms, and provide production incentives to their farmers and (2) more closely relate concessional food aid to efforts by recipient countries to increase their own agricultural production. Such considerations should be made a part of the programing documentation for each country.

We also recommend that AID work to modify developing countries' policies and institutions that are disincentives to expanded farm output and assist such countries in taking effective action to provide adequate incentives. AID should provide more assistance in identifying and bringing to the attention of developing countries those policies and institutions that may not be generally recognized or understood as disincentives and alternative policies and programs that could improve the performance of the agricultural sector.

We further recommend that the Secretaries of State and the Treasury take the lead in working for concerted action among major donors, including the international organizations and financial institutions, for removal by aid recipients of agricultural production disincentives and for the adoption by these countries of a positive agricultural development strategy that stresses adequate farm production incentives.

CHAPTER 11

OBJECTIVES AND SCOPE OF REVIEW

This review concentrated on developing countries' governmental policies and institutional factors that negatively affect farmers' economic incentives to increase production. Other constraints to food production relating to economic development, such as inadequate storage, marketing, transportation, and communication facilities, were not reviewed.

We sought to:

--Identify governmental policies or practices that act as disincentives to expanding production.

--Determine actions taken by U.S. Government agencies either individually or with other donors to influence the countries to remove disincentives.

--Develop and recommend actions to remove disincentives and provide incentives to farmers to increase production.

--Determine the disincentive effects of direct food aid, such as that provided under Public Law 480, on agricultural development.

We did work in the Departments of State, the Treasury, and Agriculture and at AID and visited India, Indonesia, Pakistan, Sri Lanka, Kenya, Tanzania, Peru, and Uruguay. We considered reports, studies, and documents and held discussions with officials of donor agencies and the host countries.

DISINCENTIVES TO AGRICULTURAL

PRODUCTION IN INDONESIA

Indonesia is the fifth most populous nation in the world. More than 60 percent of its 130 million people live on the islands of Java and Bali, which comprise only 7 percent of the total land area. Only half of this land is arable. With 1,500 people per square mile, Java and Bali are among the most densely populated areas on Earth. The population growth rate is about 2.6 percent; with population expected to double in less than 30 years, food production will have to expand substantially to meet growing demand.

Indonesia has a dual agricultural structure consisting of an estimated 15 to 18 million small-holder farmers and just over 1,000 large estates. It is considered a nation of peasant farmers, and the average amount of farmland per family on Java has fallen to about two-thirds of a hectare as a result of increased population. Nearly 85 percent of the population is rural, and for about 70 percent agriculture is the primary source of income. Rice, the principal food, accounts for one-third of the value of total agricultural production.

Indonesia is generously endowed with natural resources and, like other major oil-producing countries, has experienced an increase in oil revenues as well as in revenues from timber and other raw materials.

Indonesia remains, however, an impoverished and technically undeveloped country beset by unemployment and weaknesses in the agricultural sector. As yet, the benefits of the improving financial position are being felt by only a minute segment of the people. A broad spectrum of the population, including the one-third of the rural who are landless, have suffered reduced real income.

Food self-sufficiency, an announced Government goal, has not been attained. Indonesia remains one of the largest rice importers in the world; more than 10 percent of its rice requirements have been met through imports in recent years. Wheat is also imported, and total annual food grain imports have been at least 1 million tons and sometimes over 2 million tons.

Indonesia has made efforts to increase production. Beginning with the 1970/71 season, the principal official program has been one under which Government authorities coordinated the procurement and distribution of improved seeds, subsidized fertilizer, credit, and other inputs through both Government and private channels. The program was expanded to cover additional crops, including corn, soybeans, and cassava.

The Indonesian Second 5-Year Plan, which began April 1974, heavily emphasizes agriculture--almost 40 percent of planned expenditures were to benefit the rural sector.

Various officials contacted agreed that the potential for expanding food production is excellent if problems can be overcome. Vast areas of undeveloped land with good crop potential exist on the Outer Islands. The potential for further intensification of production in the central core (Java and Bali) is also considered good.

The optimism is guarded, however, because Government actions have not gone far enough and policies or practices which act as disincentives to increased food production remain. The primary disincentives to increasing Indonesian food production include:

--Policies designed to hold down food prices.

--Restrictions on internal movements of food.

--Administrative deficiencies.

--Unavailability of credit.

--Taxation of exports.

AID and State made the following overall comments on our summary of disincentives in Indonesia.

"There are, indeed, many disincentives to agricultural production in Indonesia. The GAO team that visited Indonesia clearly grasped the magnitude of the problem and was able to produce an impressively complete list of the disincentives. However, we believe that the summary provides a misleading impression of how the Indonesian government and AID feel about the disincentives, and of what is being done to remove them. We believe that the senior policymakers in Indonesia are keenly aware of the problems and are proceeding deliberately and systematically to improve the situation. In other words, there is a distinct trend toward the removal of disincentives, the strengthening of existing incentives, and the introduction of new incentives. Perhaps the major shortcoming of the summary is the failure to recognize that policymakers in Indonesia, as in most developed as well as developing countries, are constrained in their actions by very real domestic political considerations. You can't always do what you want to do. We wish to state emphatically that AID is committed to promoting agricultural production in Indonesia as effectively as possible. Out of respect for the sovereignty of the Indonesian government, we have not made demands where we felt attitudes were correct and trends were favorable. The thrust of our activities in the agricultural sector is to strengthen the capacity of the Indonesian government to adopt effective policies, undertake meaningful programs, and implement sound projects."

PRICING

The Government considers controlling the prices of basic foods an important policy objective. It fears that, if food costs reflected world food prices, then increased wages in all sectors would be necessitated, inflation aggravated, and economic development disrupted.

Indonesia's pricing and subsidy policies which act as disincentives to increased agricultural production include

--controlling the selling price received by the producer,

--controlling the retail price to the consumer by importing grain for sale at subsidized prices, and

--setting a uniform price level in all areas of the country.

The stated policy is to assure farmers an adequate incentive for rice production by supporting an appropriate rice floor price, while protecting consumers by controlling prices at the retail level through ceiling prices. In carrying out its pricing policies during the past several years, the Government has placed more emphasis on protecting the consumers than on supporting the producers. For example, in July 1974 domestic rice prices were only about half the world market price and the producers' support prices were even lower.

Rather than carrying out a vigorous policy of domestic rice procurement to support producer prices at incentive levels, the Government has imported about a million tons of rice a year and has sold it domestically at a fraction of the cost to hold down consumer prices. Other items, such as wheat and sugar, are also subsidized.

In 1973, the Government declared that the Government-controlled village unit cooperatives would play a major role in rice procurement by purchasing from the farmers, processing in their own facilities, and selling to the Government's food agency. When the market price rose substantially above the price the cooperatives were authorized to pay, farmers were reluctant to sell to them. As a result, the Government ordered farmers to sell first to the cooperatives, and soldiers were reportedly used in some areas to enforce the order.

The attempt to force farmers to sell at less than the market price undermined their incentive to increase production or accept the rural cooperatives. The plan failed and was subsequently halted; but this points out the fundamental problem of the Government's failure to appreciate the necessity of adequate pricing incentives to farmers as part of procurement programs.

The Government seeks to offset the disincentive of low producer prices by subsidizing fertilizer prices. However, the (1) Government-controlled marketing mechanism, (2) low price margins allowed to fertilizer distributors, and (3) one-price fertilizer policy discourage fertilizer distribution.

In November 1974, Indonesia announced a 40-percent increase in the floor price of rice effective February 1975 and an immediate 50-percent increase in fertilizer prices. No change was announced for the ceiling price of rice, but it was also expected to rise considerably.

Indonesia's system of uniform rice prices in all markets and provinces has been a major impediment to market integration and regional specialization. But AID says that Indonesia no longer has a uniform nationwide ceiling price for rice.

AID and State made the following overall comment on this discussion of Indonesia's pricing policies.

"This section fails to recognize the critical difference between a government's justifiable efforts to shelter its economy from sharp, short-term international price fluctuations, and a government's efforts to obstruct necessary adjustments to changes in long-term price levels. During the past two-year period, international rice prices soared from below $100 per m.t. to over $600 per m.t. and have now fallen back to nearly $300 per m.t. During the same period, rice prices within Indonesia have been permitted to rise from about $100 per m.t. to a current level of about $250 per m.t. Although the government has made some unfortunate decisions in its pricing policies over the past few years, most of these have been recognized and corrected--and the necessary long-term adjustment in rice prices is being made."

TAXES

The Government imposes four major types of levies on agricultural products or income: excise, land, and export taxes and cesses. They were estimated in April 1974 to yield about 20 percent of Government tax revenues. Two of these levies, export taxes and cesses, are considered disincentives to agricultural production.

Export taxes are assessed against all agricultural exports at a rate of 10 percent on prices determined by the Ministry of Trade. The food crops primarily affected by the tax are cassava, copra, sugar, soybeans, and peanuts.

An April 1974 agricultural sector survey by a World Bank mission stated:

"Since Indonesia exports do not play a dominant role in world markets, export taxes are clearly passed on down to producers and must consequently have an adverse effect on production incentives. In some cases, particularly when a considerable amount of processing of the raw farm product takes place prior to export, and when production is carried out by large numbers of smallholders facing inadequate marketing systems, the tax actually passed on to the producer may represent considerably more than 10 percent of the producer price.

"Unlike the [land tax], export taxes represent an inefficient means of collecting revenues, with pronounced disincentive efforts on production. * * *".

Cesses--nominal taxes levied on 17 export commodities--yield about $7 million annually. They are taxes on marketed production and also apply to domestic sales. Regarding cesses administered separately from other taxes, the Bank report stated that the rationale for creating a separate duplicate authority to collect taxes and spend revenues is not entirely clear. Furthermore, the type of tax appears to have even less merit than the export taxes. While cesses are considered a disincentive to production, copra is the only food crop greatly affected by them.

CREDIT

Officials believe the Government needs to increase the lending allocated to the food production sector and expand the credit available to small farmers. Although credit is provided by a variety of sources, both the amount and farmers' access to it are limited.

AID said that problems of inadequate collateral have limited farmers' access to credit. Traditional problems exist over land titles, but last year the Government decreed that land-use certificates were acceptable as collateral for agricultural credits. While this is not the final solution, it has improved access to credit for many farmers.

An April 1974 report stated that, except for some foreign loans for private estates, almost all development loans (for agro-industries and state-owned estates) and seasonal loans for rural credit for the past 3 years have been at 12 percent annual interest. Other loans in agriculture were at 24 percent and above. Rates outside the agricultural sector, however, are as high as 36 percent.

The Government seeks to compensate for low producer rice prices by providing subsidized bank credit to rice producers. However, since the smaller farmers (1) are viewed as high-risk borrowers by the banking system and (2) are often excluded from this program, only the larger farmers generally have effective access to this financing.

RESTRICTIONS ON INTERNAL FOOD MOVEMENTS

Transportation and marketing deficiencies have discouraged farmers in surplus growing areas from increasing production. Various officials contacted considered the difficulties encountered in moving food, especially between islands, a serious disincentive to be overcome.

The marketing of small holders' crops, representing most of the agricultural production, is impeded by the complexities of handling the output of millions of small producers. Various road taxes, port charges, and other payments, many not Government sanctioned, are encountered in moving food throughout Indonesia. The marketing costs (both real and contrived) are considered inordinately high, thus limiting the incentives of small farmers. Details on the illegal charges and actual costs of marketing were not available.

Interisland shipment of rice except under Government auspices is prohibited. This has greatly restricted the movement of rice from surplus production areas to deficit areas, thereby reducing producer prices and hence incentives in the surplus areas. The Government has preferred to supply the deficit areas with imported rice.

NEEDED IMPROVEMENTS IN AGRICULTURAL PROGRAMS

Inefficiencies in administering programs and in providing information to the farmers on how to increase yields were frequently mentioned as major roadblocks to increased agricultural production. Administrative weaknesses appear to result from the multiplicity of Government agencies and directorates concerned with agriculture and the inadequate organization for planning, research, extension services, and regional development.

Lack of good statistical data is a problem, as shown by the following World Bank assessment.

--The poor quality of agricultural statistics, a far more serious handicap to sound economic planning than is generally admitted, results in part from a half a dozen different agencies inadequately gathering or reporting statistics on the same crop.

--The topographic map cover and land-use and soil surveys are inadequate to permit a precise appraisal of existing resources.

--Accurate information on the costs of marketing specific crops and the actual marketing processes are lacking; major surveys of these costs and processes are needed.

Efforts for reform are reportedly hampered by administrative inefficiencies. The official compensation for nearly all Government employees is too low to either permit or command full-time efficient performance, and any effort to demand such performance is seriously undermined. Efficiency is low, and opportunities for income enhancement, at the expense of effective Government operations, are common.

Substantial salary increases have been awarded in recent years including a major boost for Government and military personnel in 1974. A program of selective pay increases, combined with inducements and other measures to reduce the large numbers on the Government payroll, was believed to be needed.

OUTER ISLAND DEVELOPMENT

Another problem has been the failure to develop agriculture on the Outer Islands. For various reasons only a modest beginning has been made in combining Java's intensive labor resources with the unused land in the Outer Islands. It is estimated that as much as 20 million hectares of presently unused land could be developed for farming. However, much of the area is unmapped and unexplored.

Continuing agricultural growth in Indonesia is reported to depend on an imaginative approach to Outer Island development and on intensification of production in the central core. However, Government assistance to the Outer Islands has been minimal, consisting primarily of a small transmigration program and construction of access roads, usually for other purposes.

EFFORTS TO INFLUENCE REMOVAL OF DISINCENTIVES

According to U.S. Government officials, no recent efforts have been made by either the Embassy or AID to influence removal of or changes in Indonesian policies acting as disincentives to food production. They pointed out that U.S.-Indonesia relations have deteriorated as a result of the cutback in U.S. concessional aid.

The general consensus among officials contacted is that the United States has little influence over Indonesian food policies and efforts to obtain removal or elimination of agricultural disincentives would be futile. Further, Indonesia's oil revenues are a pertinent consideration in how the Government attacks its food problems.

AID and State made the following comment on efforts to influence removal of disincentives in Indonesia.

> "* * * While U.S. officials have not made any recent direct attempts to influence changes in specific Indonesian policies on a national scale, virtually all AID projects contribute to the formulation and implementation of better policies. In collaborating with the Indonesian government on the development of each new AID-supported activity, we seek to design projects that provide direct benefits to small farmers and the rural poor. These efforts involve minimizing, if not eliminating, the efforts of disincentives among project beneficiaries. Most projects are intended to be replicable and thus would extend their beneficial impacts over time."

DISINCENTIVES TO AGRICULTURAL PRODUCTION IN SRI LANKA

Sri Lanka is an island with 13 million people located off the southeast coast of India. Agriculture, the most important sector of the economy, accounts for 56 percent of total employment. In this sector, the production of export crops (tea, rubber, and coconut) by large estates and food grains by numerous small farmers are emphasized. Production of rice, the principal food, has been stagnant since 1970. Wheat is not grown in Sri Lanka, but there is demand for wheat products.

Sri Lanka is a prime example of a country facing serious food shortages due to government policies that have historically acted as disincentives to food production. The problems in the agricultural sector are many, complex, and often interrelated, but almost all have their origin in the country's social welfare political philosophy, which has generated a system of free and subsidized food, transportation, and social services. The coalition government elected in 1970 promised more free rice than ever before.

Numerous officials have observed that Sri Lanka has a "people problem" rather than a "resource problem." Although difficult to explain in economic terms, the high level of welfare services, the substantial subsidies on staple foods, and the lack of stimulus provided by fear of real poverty appear to be contributing factors Further, the free education system has turned out an abundance of educated youth who cannot find employment but are unwilling to work as farmers.

The country has historically relied on the export earnings of tea, rubber, and coconut to finance imports of food and other needed commodities. However, production dropped off or became uneconomical and the revenues generated from the export crops which paid for the food imports dropped. At the same time, the costs of food and fertilizer imports increased substantially. This left the country in a crisis situation in 1973--it had not enough food nor the foreign exchange to pay for food and other imports needed to operate its welfare system.

The United States did not have an agricultural attache or specialist in Sri Lanka, and no one had been given the responsibility for monitoring and reporting on Sri Lanka's agricultural problems. Because little documentation beyond work done by the World Bank was available, our ability to identify (1) the impact and relative significance of reforms initiated by the Government in 1973 and (2) the extent of current agricultural disincentives was limited.

Nevertheless, our discussions with various officials in Sri Lanka produced the following observations:

--The 1973 reform measures did not eliminate disincentives to food production but did reduce their severity.

--The reform measures were the result of a deteriorating economic condition which forced the Government to take action.

--The Government is aware that agricultural disincentives exist, but its options are limited by its commitment to the political/social system and by its desire to stay in power.

The State/AID comments stated that the most important factor motivating the Government of Sri Lanka to change its overall policy in 1973 to accord development a high priority was the expressed reluctance of World Bank-sponsored Aid Group donors to "come once more to the rescue" by increasing their assistance during the financial crises of 1972-73. This deliberate stance was jointly adopted to demonstrate to the Government that the donors were no longer prepared to finance the status quo but would only support positive actions addressing the economy's basic structural problems. The belief was that the deteriorating conditions would bring the Government to realize that only through its positive actions could the economic and financial situation be stabilized.

It is unclear what influence the aid donors had in bringing about the changes. The donors did not increase their aid in response to Sri Lanka's financial crisis; however, aid was increased after reforms were initiated in October 1973.

State/AID provided the following background on the evolution of Sri Lanka's policies. This information provides perspective for our later discussion of Sri Lanka's disincentive policies.

Past policies were designed to deal with external trade, payments, fiscal, and egalitarian policy concerns. Because of the historical orientation of the economy toward the three major export crops--tea, rubber, and coconut--as the prime source of foreign exchange earnings and the bulk of domestic budgetary resources, Government policies were essentially aimed at promoting production of these crops rather than food crops. Relative returns for export crops had historically been more than sufficient to finance food requirements and social welfare infrastructure costs and to still provide resources for investment in the industrial sector. In this context, food crop production was almost totally neglected by Government policymakers, whose incentives were to maximize production and earnings of nonfood agricultural crops.

This body of policies became increasingly anachronistic during the 1960s as world demand and prices for tea, rubber, and coconuts began to fall and earnings shrank to the point where export earnings from nonfood crops are no longer sufficient to finance basic imports of food and other essential commodities.

Since the Government's decision to realign development policy to stress food production as a national priority and to mount a food production drive, it has become increasingly apparent that the complex and pervasive body of policies built up to stabilize and maximize export crop production were inadequate to provide necessary incentives to food production and had even become inadequate to provide maximum incentives for export crops. Dismantling the previous policy structure is necessary so that a new national policy package based on food crop incentives can be created in its place. This process began in 1973 with changes in price policies and has been carried on with further phased modifications introduced in 1974-75.

PRICING

The primary disincentive to food production revolves around the Government's system for controlling the prices paid to producers while providing rations of free and of subsidized food to all the people, including the producers.

The Government-controlled Paddy Marketing Board (the sole legal trading agency for rice) is responsible for procuring domestic rice, having it milled, and providing needed quantities to the ration shops, which distribute the food under the subsidy system. Since not all the required food is produced domestically, shortages are met through imports.

One free pound of rice a week is available to everyone except taxpayers (less than 0.5 percent of the population) and non-Ceylonese workers on tea estates. In addition, rationed quantities of rice, wheat flour, and sugar are provided at a nominal price to everyone.

In recent years, Sri Lanka has been hard pressed to finance the massive food imports required to operate its food subsidy program. The country spent an estimated 12 percent of its gross national product on food imports during 1974. The Government's budget for 1975 allotted 24 percent of Government revenues for the food subsidy program. The budget projects commercial food imports costing nearly $300 million for the following three essential commodities:

Item	Estimated import quantity	Estimated cost
	(tons)	(millions)
Rice	300,000	$129
Wheat flour	346,000	110
Sugar	52,000	60
	698,000	$299

Massive imports were necessary because prices paid by the Government in past years were so low that farmers had little incentive to grow more than that required for their own food needs. Farmers are required by law to sell all their surplus rice to the Government.

State/AID explained the underlying rationale and orientation of Sri Lanka's food subsidy program as follows.

--Historically, the food ration system came into being during World War II to provide equitable food distribution.

--The food ration system and subsidized pricing is aimed at consumer protection and egalitarian treatment.

--With the prime objective being to control the price of food to consumers in order to stabilize the cost of living within reasonable parameters, the price to producers then became a direct function of political considerations and budget policies.

--Over time the food ration and price to the consumer had become highly politicized with consumer interests being accorded more political weight in national policy formulation than those of producers.

--Commencing in 1973, national policy has been increasingly stressing greater producer incentives in real terms and reducing the predominant bias toward consumers by passing along price increases.

The adverse chain of events and alarming food supply situation forced the Government in 1973 to initiate a national food production drive. The drive culminated in a package of politically difficult policy changes in October 1973 that included reducing the weekly free food ration from 2 pounds to 1 pound and increasing the price charged for subsidized foods. In addition, incentives to increase production were provided to rice growers by increasing procurement prices, expanding subsidies for fertilizer (discontinued in April 1974) and other inputs, increasing farm credit, and canceling old farm debts.

As one incentive, the procurement price of paddy rice, increased from 14 to 18 rupees a bushel in April 1973, was again increased to 25 rupees in October and to 30 rupees in April 1974.

Most of the price changes over the past 2 years have been poorly timed and have not provided an immediate incentive since they were announced after planting. Prices paid are still well below world market prices and various officials said further price increases are necessary to stimulate greater domestic food production.

EXPORT TAXES AND EXCHANGE RATE SYSTEM

Sri Lanka uses a two-tiered exchange rate system which encourages food imports and restricts foreign-exchange-earning crop exports.

Importers must purchase a Foreign Exchange Entitlement Certificate, which raises the effective price of foreign exchange to 65 percent above the official rate. In their usage, these certificates constitute the equivalent of a 65-percent ad valorem tax on imports and promote import substitution. However, food grains and fertilizers, which have made up 50 percent of Sri Lanka's imports in recent years, are excluded from the higher certificate rate.

To generate revenues to pay for these imports, the Government relies heavily on the export of the traditional plantation crops--tea, coconut products, and rubber--which account for 80 percent of exports. However, producers of these products do not receive the higher certificate rate for their exports or the special income tax treatment that other export commodities receive and must also bear an export tax. Thus, the system discourages production of these crops since producers receive less than half the export value of their goods and still must obtain imported goods at prices that sometimes include the higher certificate rate.

In discussing these export crops, the World Bank reported in April 1974 that "there is little doubt that the total weight of taxes, plus the exchange rate treatment, acts as a disincentive to increased output and greater efficiency."

NEEDED IMPROVEMENTS IN AGRICULTURAL PROGRAMS

Weaknesses in the Government's agricultural programs were also identified as constraints to food production. Major weaknesses included

--failure to develop a comprehensive, long-range agricultural program;

--lack of qualified agricultural personnel because the educational system produces many economists and engineers but few agricultural specialists; and

--insufficient Government support of the Ministry of Agriculture, causing it to become lethargic and its personnel to defect for jobs in other ministries.

The Government's processes are slow and complex and seriously impede its efforts to help farmers. For example, the fertilizer subsidy program resulted in complex rationing controls that absorbed much trained manpower, but the program was ineffectively administered. Farmers had to deal with an extended bureaucratic process that delayed delivery and prevented many farmers from ever applying for fertilizer.

An agricultural expert in Sri Lanka said almost any action involving contact with the Government is a long one that acts as a disincentive to production. For example, for a farmer to obtain seeds, he must

--apply for them at one ministry;

--go to another ministry to pay for them and obtain a receipt; and

--return to the original ministry or go to another to turn in the receipt and pick them up.

Other processes may involve even more steps.

The Government performs little agricultural research, and its extension services are inadequate. Few extension agents visit the farmers because they have no transportation.

Water management has never been emphasized and is highly criticized. Irrigation and water storage systems have deteriorated through lack of maintenance. Water has traditionally been free and scarce water resources have been wasted and poorly utilized.

The Government has not had a national water policy applicable to all agricultural water resources. It has a water policy which calls for charges for irrigation projects involving lift-type irrigation systems. These systems lend themselves to control of water releases, monitoring of flow and use, and pricing of services to users. The predominant systems (gravity flow from rivers and local small water storage reservoirs and ponds) are not susceptible to metering or water flow control as a basis for water pricing except at an investment cost which Sri Lanka can not expect to afford for years. This inability to raise revenues from gravity systems users contributes to the lack of resources for improvement, modernization, and extension of systems to provide better control of water use.

According to State/AID, the problem of wastage or inefficiency in use of water can be dealt with through two approaches: farmer education or water metering. The latter approach requires immense capital resources not now available and unlikely to be for a long time. Farmer education appears to be a more sensible approach; it will require a long-term effort but less capital resources. It could be taken up as part of a total technological package to reorient farming practices away from the "flooding" concept of rice cultivation toward "rainfed-weeding" and crop diversification practices.

The World Bank has reported that, with the existing maze of controls, the price system is so distorted that it transmits only confused information to the Government and uneconomical orders to the producer. Because of the complex network of price supports, the two-tiered exchange rate system, rationing, subsidies, taxes, and other controls, conventional economic relationships become all but meaningless. The Bank stated that an efficient allocation of resources within the agricultural sector is impossible with present price distortions. Further, the Government does not have the administrative and economic skills needed to manage the complex set of controls, taxes, and subsidies that make up its welfare system.

CONTROLS LIMITING PRIVATE INVESTMENT

Private investment in agriculture is urgently needed but continues to be inadequate, partially because of the Government's socialist philosophies. Although the private sector has been promised a continuing place in the economy, considerable uncertainty remains among businessmen, agricultural estates, and large farmers. Contributing to that uncertainty are the Business Acquisitions Act, which permits the Government to take over estates and businesses without recourse to the courts; limitations on personal income; land reform legislation; and various restrictions on private enterprise.

Various agricultural estates have been nationalized, usually with adverse results. Apparently the primary problem is that management is reorganized under political appointees who lack the capability to run the estates.

Examples of the type and amount of land nationalized are shown in the following table:

Type	Acres
Tea	135,760
Rubber	82,944
Coconut	115,350
Paddy	16,270
Jungle and other	182,257
Total	532,581

EFFORTS TO INFLUENCE REMOVAL OF DISINCENTIVES

Sri Lanka has the potential for greatly increasing its agricultural production. A U.S. agronomist considered an expert on agriculture in Sri Lanka believes that:

--The potential for increased agricultural production is good if negative attitudes and government policies could be removed.

--The country is endowed with good agricultural land, ample water supply, and good crop growing technology.

--Problems of drought and flooding are minimal compared to India and Bangladesh and a good insect-resistant medium-yield rice strain is available.

--Therefore, there is no reason why the country can not be self-sufficient in food production.

Other U.S. officials agreed that agricultural production can be greatly expanded if attitudes and policies are changed. However, no recent U.S. Government efforts have been made to influence Sri Lanka to change policies hindering agricultural production. This is apparently because (1) the U.S. Government is attempting to maintain a low profile and not interfere in internal policies of Sri Lanka, (2) Sri Lanka does not want advice from the United States, and (3) advice offered would likely be ignored because of basic differences in the two countries' economic systems.

In their comments, State/AID agreed that Sri Lanka could improve production efficiency and increase total agricultural output if suitable policies were in effect, supported by adequate resources, and modern farming practices were adopted with improved technology inputs. They did not agree, however, that no recent U.S. Government efforts had been made to influence Sri Lanka to change policies holding back agricultural production. They said there has been and continues to be a continuing dialogue with the Government at various levels on the need for such policy changes. This dialogue has occurred in the framework of the World Bank-sponsored Aid Group, in direct meetings with Government officials in Washington and Colombo, and most recently in several AID feasibility study and program review teams' visits to Sri Lanka to review and assess loan possibilities and discuss policy concerns in connection with existing and planned loan activities.

DISINCENTIVES TO AGRICULTURAL

PRODUCTION IN INDIA

The need to expand India's food production is critical; its population of about 600 million increases by 13 million each year.

Agriculture is the backbone of the Indian economy--almost half of the national income comes from agriculture and 70 percent of the labor force works on the land. Wheat and rice are the principal foods and account for about two-thirds of the domestic food grain production and most of the food grain imports.

Food grain production increased during the 1950s and 1960s from about 50 million tons to a peak of 108 million tons during the 1970-71 season and has been stagnant since. Food grain imports during fiscal year 1975 were estimated to be about 7 million tons, including 800,000 tons under Public Law 480.

Even with a doubling of overall production, increases have barely kept pace with population growth. The Government's efforts have not been adequate to solve the food problem, and various disincentives or lack of incentives to expanding food production exist, including

--consumer-oriented pricing policies which depress producer prices,

--restrictions over internal movement of food grains,

--unavailability of credit to farmers with small- and medium-sized farms,

--insufficient farmer control over irrigation, and

--inconsistent land tenure and reform policies.

PRICING

Most U.S. officials contacted in India viewed Government efforts to hold down the prices received by farmers for food grains as the primary disincentive to increased food production. India's grain pricing policies in recent years have been increasingly oriented to urban consumers', rather than farmers', interests. Although Government support and procurement prices are established for the various food grains, in recent years support prices have been so much below market prices as to be meaningless.

Both the central and state governments procure food grains and distribute them at low prices to urban consumers. The various procurement methods which have in recent years held down the purchase price include: (1) monopoly procurement, (2) levies on producers, (3) levies on millers and traders, and (4) preemptive open market purchases. The food grains procured, together with imports, are distributed primarily through a network of fair-price ration shops. The shops are privately owned but are approved and licensed by the Government for distributing Government-owned food grains at low prices.

In spite of controls, the Indian Government has had difficulty persuading farmers to sell grain at prices the Government wants to pay. In 1973 (believing that middlemen were profiteering) the Government nationalized the wholesale distribution of wheat and established plans to do the same for rice.

The nationalization scheme failed when the Government decided to pay less than 60 percent of the current unofficial price for wheat but didn't implement necessary controls to force the growers to sell surpluses to the Government. Because of numerous problems encountered, the Government returned the wholesale trade to the private sector the following year and abandoned plans to nationalize the rice trade. The policy, though unsuccessful, was considered another indication to the farmers that the Government was attempting to prevent them from receiving a fair price for their wheat.

In 1974, in another move to boost procurement, the Government established wholesale and retail price ceilings for wheat and ordered wholesalers to turn over half of their wheat purchases to the Government at below the market price. The policy stimulated farmers to shift to other crops (despite lower yields) and to hoard grain.

Farmers and middlemen have been consistently dissatisfied with Government procurement prices and have attempted to circumvent prescribed policies. The situation has resulted in public exhortations by the Prime Minister and threats to use the Maintenance of Internal Security Act against large farmers and wholesalers if Government grain procurement does not increase substantially.

The 1974-75 Government procurement prices for wheat and rice were considered by most farmers to be inadequate in view of higher prices for fertilizer and other needed inputs. Farmers generally cannot afford fertilizer and are unwilling to assume the risks associated with using the high-yielding variety techniques. As a result, yields are lower and the Government bears an increasing burden to finance food grain shortages through costly imports.

RESTRICTIONS ON INTERNAL FOOD MOVEMENTS

Interstate restrictions on the movement of food grains throughout the country and interdistrict movement restrictions in some states have acted as disincentives to increasing food production. Although the details of the restrictions vary from state to state, the intent is the same--to build up reserve stocks and keep prices low in states that produce surpluses. As a consequence, farmers in surplus growing areas have limited incentive to increase production since lower prices usually result. Thus, while India is seeking international relief for starving areas, some districts are maintaining stocks of surplus food grain.

CREDIT

Although the total credit available to farmers has increased, distribution has been uneven among states and within farm groups, with most going to the largest farmers. Increased credit effectiveness requires that a much greater share be directed to the small farmers, but there are no signs that such a reorientation of credit will take place. A May 1974 economic assessment reported that credit allocations to those in greatest need have not increased and institutional credit often doesn't serve those for whom it was intended.

Without access to credit, small farmers have little opportunity to purchase the costly inputs necessary to successfully adopt the high-yielding technology of the Green Revolution. The large majority of Indian farmers work small farms and cannot afford even minimal amounts of fertilizer.

IRRIGATION

Although India has about 40 million hectares of irrigated cropland, it is estimated to be using less than half its irrigation potential. The farmer has little control over water provided by Government canals, which serve 40 percent of irrigated areas, because such control would require costly investment in sluices, meters, etc.

Timings of canal opening and closure are decided by the state, and the farmer has little opportunity to control irrigation depth or to dry the field in order to apply fertilizer. With the present water supply systems, the individual farmers are often powerless to take desired actions to improve their output.

Even when a group of farmers want to make changes, the design of the irrigation system may not permit them to do so. Improved water management requires a series of interrelated changes ranging from improvements in the irrigation system itself to arrangements for individual control of water at the field level.

The need for expanding and improving irrigation schemes is obvious, but such problems as sharply rising project costs, poor planning, and inadequate project preparation must still be overcome. Irrigation is a state responsibility, and central government attempts to persuade the states to earmark more funds for irrigation have been unsuccessful.

State/AID provided the following additional information on India's progress and plans to expand irrigated areas. Between 1960 and 1970, India expanded its total irrigated area from 27.9 million hectares to 38.5 million hectares. Approximately two-thirds of this increase has come from the increased exploitation of ground water sources and one-third from canal irrigation. The net increase in irrigated areas averaged about 1 million hectares per year in the late 1960s. Under the draft Fifth Five-Year Plan, the gross irrigated area is expected to increase by 11.2 million hectares, or an average of 2.2 million hectares per year; ground water is scheduled to increase by 4.5 million hectares; canal irrigation is to double to 5.2 million hectares; and minor surface water schemes are expected to triple to 1.5 million hectares. It is estimated that about 5 million small and marginal farmers will benefit from these various schemes. In addition, approximately 100,000 private irrigation pumps are added each year and enable yield improvement on an additional 400,000 hectares annually.

LAND TENURE

In spite of land reform efforts, tenurial arrangements tend to discourage investment and productivity. It was reported in May 1974 that a further deterioration of tenurial conditions including the banishment of tenants from the land has occurred. Therefore, tenants are discouraged from making improvements on the land.

Land reform, a key to any durable improvement in India's agricultural situation, has been another stumbling block for the Government. The Congress has promised land to the tiller and passed ceiling laws, but no great improvement has occurred. Hope for genuine land reform has all but vanished, because the big landowners are so powerful that it is assumed they will block any substantial land redistribution. They have generally circumvented legal limits on the size of landholdings.

India is regarded as a country of small farmers; the average size farm holding is 6.5 acres and 62 percent of the farmers have less than 5 acres. However, about 5 percent of the farms take up about 30 percent of the farm area and 20 percent take up 60 percent of the farm area.

In India, land reform legislation is a prerogative of the states rather than the Central Government. Before 1972, there were wide variations between different states with regard to the level of ceiling, unit of application, exemptions, etc. Implementation of the ceiling laws was poor and only limited acreage was distributed to landless agriculturists. In 1972, a new land reform program was formulated by the ruling Congress Party and the Central Government. This program mainly aims at lowering farmland ceilings and redistributing the surplus land. The new law provides that family holdings shall not exceed 10 to 18 acres of irrigated land capable of producing two crops a year, 27 acres of irrigated land capable of producing only one crop a year, or 54 acres of nonirrigated land.

According to the State/AID comments, most of the state governments have already revised their existing ceiling laws in conformity with the new guidelines. Upon full implementation of the revised ceiling laws by all states, a total of 4 million acres of land could possibly become available for redistribution among the landless agriculturists. Progress in implementing the land reform program, such as tenancy reforms and the consolidation of holdings, has generally been slow in most states. The Indian Government has not moved too quickly in this area because of the exigencies of Indian politics.

NEEDED IMPROVEMENTS IN AGRICULTURAL PROGRAMS

India apparently faces numerous other problems in solving its food shortages, and some politically difficult decisions are needed in formulating agricultural policies. In the past, the Government has usually bowed to expediency, adopting a patchwork of measures having limited impact and which are sometimes counterproductive.

Various officials in India believe that, until the Government demonstrates a real commitment to solving the food shortage problem, most farmers will lack the confidence needed to take risks to increase food production.

Government efforts to solve the food problem have been hindered by (1) inconsistent and insufficient efforts to expand the fertilizer industries, (2) inept administration, particularly over the production and supply of improved seeds, (3) insufficient planning before initiating agricultural programs, (4) failure to promote needed research, and (5) failure to introduce constitutional changes essential for establishing and enforcing national agricultural goals.

In regard to fertilizer production, AID said that the record is poor despite the increases in food grain production. Increases in food grain production between the crop years 1968-69 and 1971-72 can largely be attributed to fertilizer use on irrigated high-yielding varieties of food grains. Nevertheless, since this period, fertilizer availabilities have not increased, and combined with bad weather, this has caused production declines. India estimates, under present conditions, that the application of one nutrient ton of fertilizer yields an incremental production of 5 to 7 tons of grain. Therefore, India accepts the fact that continued shortfalls in the supply of fertilizer would have serious consequences on the production of essential food grain commodities. The World Bank team has visited India to ascertain fertilizer production problems, including equipment and spare parts needed to increase fertilizer production, since plants are now estimated to be operating at 60 percent of capacity.

Individual states often frustrate the execution of agricultural policies. Conflicts between national and local interests have not been easily resolved and narrow regional interests have taken precedence over national food goals. For example, the Government has no national policy regarding interstate rivers. Irrigation schemes are often stalled by state controversies about sharing water from major rivers.

Recently, more than 100 irrigation projects in 13 states were stalled by interstate disputes.

Farm income, the major potential source of Government revenue, remains virtually untaxed. The large, wealthy landowners pay no tax in most states. States have the constitutional authority for imposing agricultural taxes but have refused to do so and funds for needed agricultural development remain scarce.

Efforts to make states spend project funds as allocated tend to be defeated during times (like the present) of rapidly rising costs and resource restraints. The states receive about a third of their development funds from the Central Government and theoretically must conform their plans to its established priorities to obtain assistance. In practice, the states have easily circumvented such stipulations and set their own priorities, often to the detriment of agricultural development.

For example, state governments tend to focus on large irrigation projects, such as dams and canals, that often take from 8 to 15 years to complete.

EFFORTS TO INFLUENCE REMOVAL OF DISINCENTIVES

Despite the numerous problems identified above, most officials contacted believe India can substantially increase food production if the Government adopts needed policy changes to improve agricultural programs and provide greater incentives to the farmers. The officials did not believe, however, that the Government will make needed changes. They point out that it has shown a lack of courage to make necessary, but politically difficult decisions in the past.

We were told that the U.S. Government has not recently attempted to influence India to change policies holding back food production. According to U.S. officials, political relations are such that U.S. advice is not wanted. In their comments on this report State/AID said that the United States has used the annual World Bank-sponsored Consortium meeting on assistance to India to express its concerns to the Indian Government about the need to alter its policies and to increase its investments in the agricultural sector.

DISINCENTIVES TO AGRICULTURAL PRODUCTION IN PAKISTAN

Pakistan has the potential for high agricultural production due to its natural resources and its experience with the technology of the Green Revolution. It has failed to develop this potential, however, and has one of the lowest yields per acre in the world.

From 1968 to 1978 the country's food production increased an average of about 3 percent annually, but because of population increases per capita production showed no increase. The failure to produce enough food forced the Government to divert its resources from development programs to subsidy and import programs to help meet its goal of providing cheap, nutritious food to the poor.

The Government's policies (especially those acting to control producer prices) have been a major factor in the country's not realizing its agricultural potential.

State and AID agreed that certain of Pakistan's policies may inhibit progress in increasing food production; however, they felt that, in discussing these policies, attention should be given to nonpolicy phenonmena (war, flood, drought) which have inhibited production and to the political environment in which policy changes are made (considering trade-offs between high food prices and political stability, between rural and urban groups, and among social classes). Their comments cited the increase from 120 to 175 in the production index for all food crops during the last decade as resulting largely from a complex of policy actions, including those dealing with the introduction of high-yielding varieties; fertilizer importation, production, and distribution; water availability, distribution, and salinity control; and pricing and subsidy questions.

Pakistan has had significant increases in overall food production due to its efforts and those of external assistance donors. However, it continues to have a critical need to increase food production, and therefore needs to provide incentives to realize its production potential.

PRICING

Various governmental policies relating primarily to the Government's desire to hold down food prices for the urban consumer have been a disincentive to expanded food production.

These policies included procuring food domestically at considerably below world market prices and subsidizing the retail sale to the urban consumer at less than the farm procurement price, importing wheat and vegetable oil and subsidizing its sale at the retail level below the domestic procurement price, and procuring rice for export without giving the farmer the benefit of favorable export prices.

Government purchase and subsidized distribution of wheat began on a large scale in response to a 1962 drought, and a 1965-67 drought deepened Government involvement. Needed food was imported, including U.S. Public Law 480 assistance, and distributed through ration shops in the cities. As urban populations demonstrated their political power, the subsidy/ration shop system became increasingly institutionalized and politicized.

To maintain the low ration shop prices, the Government buys domestic wheat from farmers at much less than the world market price and sells the wheat through the ration shops for less than the price paid farmers. To compensate for production shortfalls, the Government then imports large quantities of food products, including Public Law 480 products, which it also distributes through the ration shops at the same subsidized prices.

The Government has subsidized such agricultural inputs as water, fertilizer, and pesticides. However, a cost-price relationship was not established to effectively stimulate expanded production.

An economic assessment reported that eliminating or reducing price distortions relating to both agricultural products and inputs could greatly increase efficiency and productivity in Pakistan. The relative and absolute position of lower income groups would be improved since many subsidy and price distortions tend to work to the advantage of middle- and upper-income groups.

Wheat

The agricultural attache and AID mission officials agreed that low procurement prices to farmers for wheat have acted as a disincentive to increased production. In 1974, for example, the Government paid the Pakistani farmer $69.13 a metric ton for his wheat. Wheat prices in neighboring India were twice that amount and the market price was about $157 (f.o.b. U.S. gulf ports, June 1974). The Government announced a purchase price of $100 for wheat harvested from March through June 1975, but, according to an AID official, this was still below the prevailing world and neighboring countries' prices.

Wheat, the staple food, has been in short supply for years. FAO reported that Pakistan imported, in thousand metric tons, 718 in 1971, 1,182 in 1972, and 965 in 1973. Public Law 480 exports constituted the bulk of Pakistan's imports--in thousand metric tons, 627 in 1971, 905 in 1972, and 847 in 1973. According to some assessments, had Pakistan provided close-to-market price incentives, it could be self-sufficient in wheat.

Imported wheat, including Public Law 480 and domestic purchases, is sold in the form of flour through the Government ration shops at subsidized prices below the cost of domestic procurements. The Government increased its subsidized ration-shop price about 49 percent in 1975.

Despite the risk of continued wheat shortfalls, Pakistani measures failed to improve the cost-benefit relationship of high-cost fertilizer inputs to wheat prices to the farmer. Fertilizer prices in 1974 increased 2.6 times over 1972, but the procurement price for wheat increased only 1.5 times. AID said that, just to maintain the 1972 fertilizer price ratio for the 1975 crop, the Government wheat procurement price would have to be $127 a metric ton. (The announced procurement price before planting was $100.) Wheat imports for 1975 were 1.6 million tons costing about $300 million.

Rice

Government export and price controls have been a disincentive to expanded rice production. The farmers are paid considerably less than the world market price and the Government collects the difference between the farm and export prices. In 1974, for example, Pakistan exported an estimated 200,000 metric tons each of basmaiti and coarse rice. The Government, which has a monoply on rice exports, paid the producer $165.75 a ton for basmaiti, which it exported for $800, and $70.36 for coarse rice, which it exported for $400. (The Government-announced 1974-75 crop prices are $243.55 for basmaiti and $106.10 for coarse rice.)

Rice exports reported by FAO in thousand metric tons were 279.7 for 1972 and 871 for 1973. One assessment indicated that export tonnage could be raised more than 1 million tons without increased acreage if the farmers were paid prices closer to world market levels.

Vegetable oil

Government price controls and subsidized imports have been a disincentive to expanded vegetable oil production. Because of inadequate production, the Government has imported substantial quantities of oil, which it then sold for less than import costs.

The agricultural attache reported in June 1974 that Government-controlled retail prices limited the supply of domestic cottonseed oil and required substantial commercial imports of soy and palm oils. To fill the need about $95 million in foreign exchange will have been spent from November 1973 to October 1974. The imported vegetable oil was sold to oil millers at about half the landed cost to hold down prices. Oil price control tended to depress cotton seed prices, and measures taken to control internal cloth prices and actions that restricted raw cotton exports also acted as disincentives to cotton farmers.

The attache's report further said that Government programs involving vegetable oil were not conducive to higher oilseed production. The country desperately needed more vegetable oil, yet there were no programs to encourage production of peanuts, rapeseed, sunflowers, or other sources of oil.

According to U.S. officials, the oil extraction industry is inefficient, recovering only about one-half the oil from cottonseeds, and the Government-controlled prices were too low to encourage development of other oil sources or modernization of the extraction and marketing industry.

Public Law 480 imports have helped the Government maintain its low domestic prices for hydrogenated vegetable oil. These imports were 54,200 metric tons in 1972, 34,300 in 1973, 22,200 in 1974, and 15,300 in 1975. The 1975 imports represented about 10 percent of the $124 million vegetable oil imports.

To lessen both the heavy drain on Pakistan's free foreign exchange and the costs of subsidized distribution, State/AID said that during 1974-75 Pakistan increased the domestic procurement price for cottonseed oil from $372 to $541 a ton, required all industrially produced oil be sold to the Government, and increased retail prices by 50 percent. The Government also undertook (with U.S. assistance) a study of the cottonseed sector aimed at increasing yields by modernizing the industry. AID will also provide assistance for producing other oilseeds.

TAXES AND NATIONALIZATION OF EXPORTS

Government tax policies and nationalization of exports have proved to be major disincentives to expanding production because they isolate the farmer from favorable world market prices. Export taxes are a major source of Government revenue. According to U.S. officials, rather than passing world market price increases to farmers, the Government raises export duties to take increased profits as revenues.

During a period of rising world market prices for rice, Pakistan nationalized the export of rice. The farmers were paid considerably less than the world market price and the Government collected the difference between the farm and export prices. In fiscal year 1974, export duties from rice brought in an estimated 400 million rupees, and in fiscal year 1975 such duties were expected to increase by 45 percent.

Cotton production and exports have also been adversely affected by export duties and nationalization. Although cotton production was about the same in 1973 and 1974, raw cotton exports for 1974 were about one-fourth those of 1973. Cotton yarn exports were down 45 percent and cloth exports were down 35 percent. U.S. officials reported that the decline in cotton exports was due to

--inept management of raw cotton exports after nationalization under the Cotton Export Corporation,

--high export duties and poor Government response to world price trends, and

--a temporary halt in exports to assure adequate supplies for domestic processing.

U.S. officials said the unprecedented Government intervention in the cotton industry and declining international prices during fiscal year 1974 reduced foreign exchange earnings and Government revenues while increasing domestic inventories at all production levels. During a period of rising international cotton prices, Pakistan nationalized cotton exports and raised export duties to absorb the difference between farm prices and rising international prices rather than pass on increased profits to farmers and middlemen. When the world market price for cotton declined, cotton exports declined sharply because the Government did not adjust export duties downward. Private exporters were recruited to assist the Cotton Export Corporation, and export duties were reduced for raw cotton and eliminated on cotton yarn and cloth.

Pakistan would like to increase both farm income and cotton production. Yet, in apparent opposition to this goal, it maintains low prices for cottonseed and lint to help control consumer prices for cotton products.

EXTENSION SERVICES

The Government's use of extension workers as enforcement agents damaged their credibility with farmers. The agricultural attache said the Government had used extension workers to direct farmers to plant certain crops rather than only to assist the farmer. In addition, the FAO representative said that conflicting duties undermine the potential effectivenss of the extension worker.

Two domestic fertilizer companies had their own extension programs, according to the agricultural attache, but the companies could no longer afford these programs after the largest agricultural province took over fertilizer distribution to its farmers.

CREDIT

The agricultural credit system discriminates against small farmers and tenants which characterize Pakistan's agriculture. Such producers must rely more heavily on more expensive noninstitutional credit than large farmers and owner-operators.

Until 1972, 92 percent of the credit extended to small farmers was from noninstitutional sources, such as landlords, relatives, and private money lenders. Recently the Government has been trying to increase the availability of credit from institutional sources to farmers, especially small farmers. The Government has introduced a system of credit passbooks and set lending quotas for banks. Though there has been a large increase in institutional credit to farmers, it still represents only a small portion of total agricultural credit.

State and AID said that working on improved and expanded institutional credit arrangements as a means of achieving rural equity objectives will be important in the long run. A recently begun grant project in Dryland Agriculture Improvement will consider credit in the context of small farmer technology and will seek to measure the propensity of small farmers to adopt new technology.

LAND TENURE

Two efforts at land tenure reforms, in 1959 and in 1972, resulted in the Government taking over and distributing 1 million acres to 50,000 families. There were an estimated 2 million tenant families and a large number of rural landless laborers in 1959.

Tenant farms account for at least 45 percent of the total cultivated area. Share tenancy is a disincentive to increased farm productivity and agricultural development because the usual landlord-tenant policy is for the landlord to take half of any production increases. The tenant is thus discouraged from striving for greater productivity. If share tenancy were abolished in favor of fixed-rent tenancy, then marginal improvements in productivity would accrue to the tenant, thereby increasing his incentive to use fertilizer and other yield-increasing inputs.

IMPACT OF FOOD AID AND CONCESSIONAL FERTILIZER

Public Law 480

The massive amounts of assistance provided Pakistan under Public Law 480 have helped Pakistan maintain its consumer-oriented food policies and, in so doing, have discouraged expansion of domestic production.

Section 109 of Public Law 480 directs the President to consider each recipient country's self-help efforts, including establishing and maintaining policies to insure adequate incentives to producers. The AID mission's request for Public Law 480, title I, assistance for fiscal year 1976 contained only two brief general references directly related to Pakistani policies affecting production. It contained no discussion of the disincentives to producers that AID and the agricultural attache have identified on other documents. The mission said officials managing the Public Law 480 program in Washington are aware of agricultural policy problems in Pakistan.

The United States has provided Pakistan over $1.6 billion in agricultural exports, primarily grains and related products, under Public Law 480. Such assistance has declined in the last 2 or 3 years, but it still is a considerable share of cereals imports and, from 1970 to 1972, accounted for 8 to 14 percent of cereals consumption. Public Law 480 assistance accounted for 20 percent of Pakistan's $446 million food imports in 1975.

Mission and Embassy officials agreed that inexpensive Public Law 480 imports have helped Pakistan maintain domestic food prices below those of neighboring countries and well below world market prices.

State and AID did not agree that Public Law 480 foodstuffs (and fertilizer) support disincentives to the increased production of such commodities, but said that such an argument might have been made in earlier years of world abundance and low world prices.

Fertilizer imports

From 1965 to 1974, Pakistan's fertilizer consumption increased from about 70,000 to almost 500,000 nutrient tons per year. Domestic production expanded but did not keep up with the rapidly increasing demand. As a result, Pakistan imported over 1 million nutrient tons of fertilizer costing an estimated $214 million. AID's loans (10-year grace period, repayment over 40 years) totaling $116 million financed 54 percent of the total imports and lessened pressure on the Government to speed expansion of domestic fertilizer production. Pakistan relied on imported fertilizer even though it has large deposits of natural gas which can serve additional plants.

AID said loans for fertilizer imports helped stimulate demand for fertilizer and increased agricultural production. Political difficulties of the early 1970s and timelags between planning a plant and production were cited by AID as the main reasons for the failure to expand domestic capacity. Negotiations are now underway to build additional fertilizer plants.

Even though Pakistan imported over a million tons of fertilizer costing $214 million, including $116 million financed by AID, the State/AID comments said that Pakistan's commitment to expanding domestic production is evidenced in the growth of nitrogenous fertilizer production from 47,000 nutrient tons in 1966 to 300,000 nutrient tons in 1974, and that Pakistan is expected to reach self-sufficiency in nitrogenous fertilizer by 1980.

EFFORTS TO INFLUENCE REMOVAL OF DISINCENTIVES

The AID mission said the Government of Pakistan has been receptive to considering amendments to its policy on the merits of analysis brought to its attention. The mission said its suggestions to the Government have been in terms of

AID's perceptions of Pakistan's public interest, not in terms of a quid pro quo for the provision of funds.

In summarizing its views, the mission said

"* * * it is worthwhile considering Pakistan policies in terms of their strengths as well as their weaknesses. Over the past decade and half Pakistan's agricultural sector has performed remarkably well. The statistics describe a doubling or better in production of wheat, rice and cotton. While at no time during this period would an objective observer have called Pakistan's agricultural policies optimal for maximizing production, the overall environment for agricultural production must have been reasonably good to have secured these achievements."

State/AID further added:

"* * * We feel that Pakistan is serious and frank in its perception of needed policy changes, which were discussed openly at the Aid-to-Pakistan Consortium held in Paris in May. We are also heartened by discussions regularly held by our Mission and the Pakistan Government in the context of P.L. 480 and fertilizer resource transfers, in which needed policy reform is explored, options examined, and assurance obtained that the prospective assistance will be supportive of improved production incentives."

DISINCENTIVES TO AGRICULTURAL PRODUCTION IN KENYA

Kenya is considered to have the general potential to be a supplier of foodstuffs to the East Africa area. About 85 percent of its population is employed in the agricultural sector, which contributed from 32 to 40 percent of the gross domestic product and 60 to 70 percent of total overseas commodity exports for 1964-73.

Agriculture has remained the dominant sector in the economy, and its overall 1964-73 growth rate of 4.7 percent exceeded the 3.5-percent population growth rate. For 1970-78, it is estimated that demand will grow at 5.2 percent annually for wheat; 3.9 percent for maize; 4.9 percent for pulses; and over 6.0 percent for all meat, fish, eggs, and dairy products.

Food grain imports were $14 million in 1973, $25 million in 1974, and an estimated $25 million in 1975.

A goal of the Government is to be self-sufficient in food production and produce surpluses for export. Part of the reason for the failure to realize production potential, necessitating imports, can be found in Government policies which do not provide adequate agricultural production incentives. Some of the policies relate to

--low producer prices and distorted market conditions and

--inadequate extension services and credit to small holders, the primary agricultural producers.

PRICING

The Kenya Government protects consumers by keeping food prices low and paying set prices to food producers. The Government controls producers' prices of agricultural products for domestic consumption but does not control producers' prices of agricultural exports (coffee, tea, sisal, etc.).

The Government recognizes the need to increase production and has recently taken actions, including substantial increases in producer prices, to increase total production.

On January 22, 1975, prices to producers of food grains were increased and the price of beef was decontrolled. The set of price increases was the fifth in 2 years and more than doubled the 1973 producer prices for maize (31/20 to 65 Kenya shillings for 90 kilograms) and wheat (43/- to 100/- Kenya shillings for 90 kilograms).

AID, FAO, and the World Bank said, and Kenyan officials agreed, that producer prices for food crops before the January price increases had been too low to serve as an incentive for production. A Kenyan official said that, at former prices, producers would lose money if they used fertilizer.

We were told by a U.S. official that because of Kenya's low wheat prices some of the country's largest landowners and farmers sold their entire 1974 wheat harvest in Uganda.

The Government pricing structure also caused distortions in the production and marketing of other foodstuffs. Before the decontrol of beef prices in January, the higher prices paid for dairy products caused overallotment of resources to dairying and inhibited beef production. Low consumer prices for beef prevented pork and poultry from being competitive alternative meat sources. The combined effect on beef was low production and high (80 percent) onfarm consumption.

The marketing system is also an important constraint to increasing production by smaller farmers. AID officials said that, while the Kenyan Government production orientation provides a marketing system responsive to larger producer needs, marketing services for small producers are seriously deficient.

CREDIT

Institutional credit generally has not been available for small farmers, credit has been extended primarily to large farmers producing export crops, and a low interest rate policy has created a money flight from the rural to urban areas.

A World Bank assessment reported that large farmers receive 75 percent of the credit and produce 50 percent of the marketed output; small farmers receive 25 percent of the credit but produce the other 50 percent of the marketed output and provide subsistence for 90 percent of the population.

Credit is extended primarily to large farmers producing export crops. Only about 200,000 of the 1.2 million small holders have access to any formal credit, and little or no credit is available from any source for subsistence crops. World Bank officials said that many Kenyan farmers with 3 or 4 acres are financially solvent and can buy agricultural inputs (such as improved seed and fertilizer); however, others are not solvent--thus there is a need for credit, but the need is not universal.

AID officials said the credit problem often is a lack of institutional capacity to service smaller farmers while simultaneously servicing the credit needs of the more modern agricultural community. While noting that the Kenya Government is aware of the needs of small producers, AID said many experts do not view credit as a limiting constraint to small farmers given their existing level of technology. For many small farmers, availability of inputs, a marketing system, and credit training are necessary before they are able to make efficient use of production credit. What is lacking is an integrated agricultural system responsive to the needs of small farmers.

Kenya's low interest rate policy has also limited credit to small holders by creating a money flight from the rural to urban areas, by not recognizing higher costs involved in lending to small holders, and by not recognizing the higher risk factor. AID officials said that Kenya's policy now is to more flexibly utilize interest rates and that interest rates have recently been substantially increased.

The Government is examining its credit institutions to identify weaknesses and determine ways to correct or expand credit to small holders. Kenyan officials indicated that cooperatives are the key credit institution for small holders because they can provide credit in volume and can exert pressure on the borrowers through their membership to insure repayment.

AID has given technical assistance to upgrade the Government's Agricultural Finance Corporation's ability to provide credit to farmers and ranchers. AID also authorized a loan for $13.5 million to be used primarily as short-term agricultural production credit. One component of the loan is to provide services to farmers not previously reached by Government programs.

EXTENSION SERVICES

The Government is concerned with developing programs for small holders, such as effectively coordinating extension services with the delivery of inputs. For example, new hybrid maize seed has been developed to increase yields; however, the Government has not been able to provide credit to the farmer and provide adequate amounts of fertilizers and pesticides on a timely basis so the farmer can buy the inputs to get the increased yields.

The effects of extension services for increasing production on commodities for domestic consumption have been limited. The extension service efforts have been primarily toward export crops, such as coffee, tea, and pyrethrum (insecticide). Even though small holders are considered the key to future agricultural development, they have received little attention on other than cash crops from Government extension services. Officials generally felt that the Government stress on extension services for the larger holders and cash crop production had caused the food subsistence sector to suffer.

Various donor agencies indicated that the extension services suffered also from such problems as

--lack of staff capability,

--lack of coordination among governmental organizations,

--concentration on larger progressive farms that need the services the least, and

--lack of mobility of extension agents.

FAO and World Bank officials indicated a need for organizational improvements within the Ministry of Agriculture. The Bank officials said that the Bank will include, as a condition to the approval of one of its projects, reorganization of the Ministry of Agriculture's extension services to make them more effective in dealing with agricultural problems.

EXCHANGE RATES

Kenya's overvalued currency along with the low interest rates leading to undervalued capital and low producer prices were combining to reduce production incentives and investment in agriculture. Imports were cheaper than their real value and farmers of export crops were receiving less for their exports.

International organizations advocated that the Kenyan shilling be devalued. More recently, however, the situation has changed. The Kenyan shilling is tied to the U.S. dollar and the decline in the dollar in relation to other currencies has in effect devalued the shilling. AID said that neither the World Bank nor the International Monetary Fund currently recommend devaluation of the shilling.

LAND TENURE

Since the early 1960s the Government has broken up many large foreign-owned farms and settled Kenyans on them in small acreages. Farms under 50 acres number about 1.2 million. About half have less than 5 acres and are operating at or near the subsistence level. But, in total, they produce about half the marketed agricultural output as well as the nonmarket, or subsistence, crops for 90 percent of the population.

The Government has not supported the change in land tenure with a coordinated and intensive shift in services from large to small holders. The decision to emphasize small holders was only made in the 1974-78 Development Plan published in March 1974. The Government is formulating programs, but it lacks qualified personnel and is having trouble developing and implementing plans for assisting small holders.

Some donors believe that, even with the producer price increases, food crop production will not greatly increase because of the lack of effective support services to these small holders, especially in extension services and credit.

EFFORTS TO INFLUENCE REMOVAL OF DISINCENTIVES

Donors have contributed over $340 million for development in Kenya since its independence in 1963. Overall, about 20 percent of such contributions have been in agriculture.

AID and Embassy officials stated that leverage (preconditions) can be an appropriate tool to bring about policy or other changes either before loan approval or as a condition to disbursement of funds under a loan agreement signed by the donor and recipient.

In Kenya AID and the World Bank can presently use leverage effectively to accelerate Kenya's consideration of, and decisions on, changes in agricultural policy. This is because the AID Bank policy concerns and proposals, along with the potential availability of a significant level of financing from the two sources, are additional impetus to move in directions generally agreed upon within the Government.

DISINCENTIVES TO AGRICULTURAL

PRODUCTION IN TANZANIA

Tanzania has been seriously affected by the energy crisis and the world food problem. The AID mission estimated that Tanzania's foreign exchange was $400 million in 1974, of which 50 percent was used for food grain imports and 15 percent for energy imports. Food imports increased from an average of about $20 million annually in the late 1960s.

About 90 percent of Tanzania's population gains its livelihood from the agricultural sector, which contributes about 40 percent of the gross domestic product and accounts for about 70 percent of total exports (major exports were cashew nuts, coffee, cotton, and sisal).

But the agricultural sector's productivity is low. The estimated average annual food production growth rate of 2.4 percent for 1968-73 was less than the population growth rate of 3 percent. In 1972, subsistence production accounted for 72 percent of the nonexport agriculture production, leaving only about 28 percent for the domestic market. Production dropped so drastically in 1974 that very little domestic food grain entered the market. Farmers with surpluses smuggled foodstuffs to neighboring countries and hoarded for themselves.

Although the Government is placing increasing emphasis on food production, its policies in pricing, taxes, credit, extension services, land tenure, and other areas are, or have been, disincentives to agricultural growth.

AID and State made the following overall comment on our discussion of disincentive policies in Tanzania.

"In order to place in proper perspective the importance Tanzania is giving to increasing agricultural production, it is necessary to note that the focus of Tanzanian development objectives is on improving the economic situation of the rural poor. This point is extremely significant. Tanzania's national policies, therefore, are a composition of social, political and economic objectives. Policy decisions regarding disincentives to agricultural production, while recognized by Tanzania as an important part of achieving development goals, are made in a context much more broad than economics alone. The draft GAO report, therefore, is somewhat misleading in implying that agricultural policy directions can be readily reversed or modified. In Tanzania, this situation is particularly relevant since a great percentage of agricultural producers now are outside the monetary economy and, therefore, little affected by actions on pricing, taxes and credit. Also of importance here is the uncontrollable impact of drought, rather than Tanzanian policies, on 1974 production."

PRICING

Tanzania's policy of providing inexpensive food to con-

Grain	Tanzania Prices before Apr. 1974	Prices after Nov. 1974	Prices for 1974 imports	Kenya Jan. 22, 1975
	(shillings/pence per 90 kilograms)			
Maize	31/50	67/50	144/-	65/-
Wheat	39/60	90/-	153/-	100/-
Rice	49/50	72/-	180/-	81/-

The Government raised prices to decrease smuggling and black-marketing and to increase production. In the Kilimanjaro region, farmers received cash payments and prices double those on the official market, according to a West German Embassy official. An AID official said that producers in the Iringa region received between 1/50 and 1/60 Tanzanian shillings per kilogram for maize on the black market compared with the November 1974 official price of -/75.

Because the producer prices were uniform throughout Tanzania, differences in transportation and agricultural input costs affected producers' profits. AID indicated that this policy was of considerable concern to it and other donors, and that Government action in this area might be more effective in stimulating production and in better allocating resources.

Both the World Bank and the AID mission indicated a need to evaluate the current price increases to determine their effect on production.

MARKETING

Although farmers have been promised a market for their produce at prearranged prices, the inefficiencies of cooperatives and the supply and marketing systems continue to discourage farmers from expanding production.

According to AID and West German officials, though prices for food crops have increased, the farmer is still not assured full payment on delivery. Also, farmers are still reluctant to sell through Government channels because by selling through black-market channels they can sometimes get considerably higher prices and receive full payment at the time of sale.

Officials of the World Bank and the West German Embassy considered this failure to assure the farmer full payment at time of sale a significant deterrent to production. A Government official said inefficiencies in the cooperatives still preclude the farmer from receiving full price for his produce even though current Government policy supports providing farmers cash upon sale at prearranged prices.

Some of the cooperatives' problems, as cited by donors, are

--sizable losses of the farmer's produce,

--corruption,

--poor service in delivering inputs to farmers,

--lack of farmer involvement in management, and

--insuffícent numbers of well-trained, competent managers.

We were told that such problems have resulted in many farmers losing confidence in marketing produce in Tanzania. Managers of Sweden's assistance program, which is focused on improving the cooperatives, confirmed the seriousness of these problems.

The cooperatives are also supposed to provide agricultural inputs to the small farmer. However, production has been hampered because cooperatives cannot supply necessary inputs on time. Representatives from various organizations and the Government generally agree that the cooperatives' inefficiency is a major deterrent to increasing Tanzania's food production. These problems contrast sharply with the success of the Tanganyika Farmers Association, a private institution with only about 2,400 members, which has been providing farm inputs to its members.

TAXES

Export taxes are the primary agricultural tax and the primary source of Government revenue. The taxes are high and the export producer, who is paid controlled prices, bears the burden. Agricultural products accounted for about 70 percent of Tanzania's exports during 1969-73.

AID/State comments said the tax is a progressive one and therefore its impact varies according to the size of the producer. In Tanzania, and perhaps elsewhere, this seems to be a proper policy of resource transfer, particularly since very few small farmers produce export crops and the Government's policy is directed toward providing services for small farmers.

EXTENSION SERVICES

The Government traditionally has emphasized cash crops for export to the detriment of crops for domestic consumption. The British and Germans established crop authorities to provide extension services, input, marketing, and credit for cash crop production. Tanzania inherited these crop authorities and continued to emphasize them, but extension services for food crops have generally been poor.

The weakness of the food crop extension services was demonstrated by a World Bank project planning team. The team estimated that, if farmers planted their crops on time, used proper weeding and furrowing methods, spaced plants properly, and used improved seed, maize yields could double to 28 bushels per acre with little additional capital investment. Using fertilizers and pesticides would provide even more dramatic results.

According to an AID project coordinator, extension workers do not have the technical training to deal with problems posed by various rainfall and soil conditions in Tanzania. Also, other officials told us the farmer's desire for assistance is critical to a good extension service, but the value of communication and good will between the extension worker and the farmer has not been emphasized.

Several officials told us that, while management quality at the cabinet and policymaking levels is excellent, the lack of midlevel management talent hinders implementation of extension policies and contributes to a weaker service. We were told that the extension agents are not getting out to the farmers because they lack adequate transportation, motivation, and demonstration materials.

CREDIT

Small farmer credit has generally been a problem. The major source of credit, the Government-controlled Tanzanian Rural Development Bank, provides credit primarily to crop authorities, to larger farmers, and through cooperatives to small farmers. The credit provided to the farmers by the Development Bank through cooperatives is not usually cash, but agricultural inputs (fertilizer, seed, etc.). Collections are made after harvest. However, the repayment rate of small farmers growing food stuffs is so low that banks are reluctant to make loans to them. The cooperative movement also has been troubled by a very low debt repayment rate.

Cooperatives are the basic source of credit for the small farmer, but the handling of inputs at the cooperative level has reportedly been poor, corrupt, and generally dissatisfactory to small farmers. It is believed that farmers would prefer to borrow from friends, family, etc., rather than use cooperatives. Another credit source is crop authorities. However, they tend to specialize in loans to cash crop farmers within their respective commodity, and their credit is not readily available to the small food crop farmers, who are required to market the bulk of their crops through Government-sponsored agencies.

RESEARCH

The World Bank recently reported that the lack of reliable production-potential data on Tanzania's many agro-economic zones is a critical constraint. A real improvement in land-use planning and applied research is not only a high priority but must also precede the more intensive agriculture programs that Tanzania needs to develop over the next 20 years. AID reports that additional research is needed on farming practices, since yields are well below potential.

Research programs have suffered from lack of governmental support. According to Government officials managing agricultural research, research funding has generally been inadequate. The AID-supported maize and legume research project has been adversely affected by budget cuts. The research team has wasted much time trying to assure adequate and timely funding by the Government, we were told.

AID said that the 1975-76 Tanzania budget contains a substantial increase in funds for agricultural research.

LAND TENURE

The Government's policy of grouping farmers in villages (ujamaa program) has disrupted production; the long-term effect is uncertain.

To provide services to the people, the Government encouraged farmers, when it first implemented its ujamaa program, to move into established villages. Although the poorer farmers responded, farmers with better land and incomes resisted. At the beginning of 1974, 18 percent of the population was in ujamaa villages. Beginning in February 1974 the Government required, and in some cases forced, farmers to move, and by the end of 1974, 50 percent of the population was in the villages.

The villages, which averaged about 500 families, were far too large. Some farmers who were used to having plots next to their houses had to walk long distances to their plots and had less time to devote to cultivation. Agricultural disruption also occurred because villages were in areas without water resources, manpower was diverted to building during the planting and harvesting seasons, and farmers were moved from their original farms preventing them from harvesting crops already planted.

GOVERNMENT ACTIONS

In September 1973, President Julius Nyerere said:

"It is no use our talking about socialism and self-reliance if we cannot even use our resources of land and labor to produce enough basic foodstuffs for ourselves."

A Government official said that in Tanzania's Third Five Year Plan, to be released after July 1975, emphasis will be shifted to gaining self-sufficiency in grain production. He said Tanzania can no longer assume that it can import food cheaply or that food will even be available for import.

The Government recognizes many of the problems it faces in the agriculture sector, and it has raised producer prices to encourage production and to get prices more in line with neighboring countries to reduce smuggling. According to a Government official, producer prices will be subject to continuous review. He added that an insurance program has been discussed that would guarantee the farmer a minimum return to offset the risk he takes with the cost of high-priced inputs.

The World Bank has said it is critical for the Government to spend more to revive the stagnant agricultural sector. For agriculture in general, the Government has not met the projected spending levels indicated in its Second Development Plan (1969-74). The Bank reports that the total public sector investment in agriculture, including processing, storage, and marketing, was targeted for 23 percent of the total budget. For the first 3 years of the plan, the Government spent 13 percent, and current estimates for the whole period are 20 percent. In contrast, investments in water, power, and education either exceeded or were close to target. Preliminary information on the Third Development Plan indicated a doubling of agricultural expenditures.

A Bank official said implementing programs is very difficult because of the shortage of talent in middle management positions. Merely changing policy does not create an effective program. However, changing and implementing price policy is relatively easy since it can be done within the existing market framework.

EFFORTS TO INFLUENCE REMOVAL OF DISINCENTIVES

The volume of technical and capital assistance to Tanzania has risen in recent years. In fiscal year 1974, donor development expenditures were $115 million and accounted for 60 percent of total development expenditures, excluding the TanZam Railroad.

AID has not attempted to use leverage to induce policy changes. Conditions to program approval have been used only for technical and economic problems within projects and have not dealt with policy issues.

An Embassy official said the Embassy probably has a better opportunity to communicate with the Government about policy issues that may adversely affect the U.S. aid program.

DISINCENTIVES TO AGRICULTURAL PRODUCTION IN PERU

The poor performance of the agricultural sector continues to be a major contributing factor to Peru's budgetary and balance-of-payments difficulties and to increasing inflation. Per capita food production for 1974 was about 2 percent less than last year, in step with the average decline experienced over the last decade. Food imports were estimated to exceed $300 million for 1974, consuming about 20 percent of the country's export proceeds.

The agricultural sector is sharply divided between two productive systems--commercial agriculture, largely export-oriented, and consumption agriculture, oriented to local markets and subsistence production. The main commercial crops are cotton, sugar, and coffee. The chief crops grown for domestic consumption are potatoes, vegetables, fruits, barley, rice, and corn.

Peru's current population is estimated at over 15 million, with an annual growth rate of 3.1 percent compared to the annual agriculture growth rate of about 2 percent. Approximately half the population works in agriculture.

The consensus of opinion of those we interviewed was that, even though obstacles exist, Peru can increase agricultural production. Governmental policies and institutional factors which provide no incentive or are a disincentive have hindered Peru in realizing its agricultural potential.

PRICING

The Government buys certain products directly from the farmers at a fixed price. As costs of inputs to produce these products rise and the price paid to the producer does not, the producer is discouraged from increasing production.

In July 1974, the U.S. agricultural attache reported that in recent months fertilizers, such as urea, increased from S/8,492 (Peruvian soles) a metric ton to S/15,914, and ammonium phosphate increased from S/8,112 to over S/16,000. He further reported in January 1975 that 1974 prices of pesticides and fertilizers were twice the levels of the previous year.

The Government's controlled price policies on many products have not changed correspondingly to permit farmers to recoup rising costs. The Government has become increasingly aware of these disincentives and significantly increased the price of corn, rice, wheat, potatoes, and chickens in early 1975.

Among the items under price control are white potatoes, wheat, feed grains, rice, sugar, coffee, oilseeds, tobacco, meat, and milk. Dry beans were removed from the controlled list in June 1975. U.S. officials have reported that the price controls are aimed at keeping down inflation and preventing speculation. The prices set are sometimes so low that they discourage production. This policy, in periods of shortages, has reportedly resulted in black markets with consumers paying high prices without producers benefiting.

AID officials said AID is planning a study to determine how price changes affect overall food production. One official said that he could not foresee an increase in food production due to an increase in the price paid to farmers unless the cost of inputs remained constant. These officials also said the Government knows it has to increase agricultural prices to increase production but faces a dilemma because it wants to keep consumer prices down.

Another disincentive aspect has been the delays farmers experience in receiving payments. The Government buys certain crops directly from farmers, and some farmers have complained about having to wait a long time for payment. For instance, the Government bought all the cotton produced during 1974. Farmers were given a receipt for the cotton, but they had to wait,sometimes months, for their money. They could borrow money from the bank on the basis of the receipt, but the interest rate charged reduced their earnings.

The manager of a central cooperative (composed of several individual cooperatives) said that one of the most important needs was for the Government to give farmers immediate payment. To illustrate, he cited the experience of one farmer in his cooperative who, because he could not wait to receive payment from the Government, went to a bank in the city to ask for a loan. His trip to the city for the S/1,000 loan cost him S/200 in lost wages and S/200 for transportation, meals, and lodging.

An economist under an AID contract to provide assistance to the Government commented that the delay in receiving credit or payment for crops definitely deterred production. Because of such delays, funds did not become available until after planting time or even later

Potatoes

The pricing policies for potatoes are aimed at subsidizing the consumer. The controlled potato prices set by the Government remained unchanged for 2 or 3 years while the cost of inputs increased. Potato production has remained about the same (according to U.S. sources) or declined (according to information provided by Peru) since 1971.

Some farmers and an AID employee said that, because the Government-set prices did not cover producer costs, some farmers were not continuing to plant potatoes or were planting only enough for their own consumption.

As of December 1974, the Ministry of Agriculture claimed that producing a kilo of potatoes in the central coast regions cost an average of S/3.63. During 1974, the Government paid the producers S/3.80 a kilo. The minor difference between the cost to the producer and the price he received does not appear to represent a profit, since the Ministry's cost estimate is based on average cost factors and low financing costs (7 percent), which are not available to small farmers. On February 4, 1975, the Government increased the price paid the potato producers from S/3.80 to S/4.70 a kilo. The price was increased again in June 1975.

AID and the Peru Ministry of Agriculture reports show that at least some Government officials knew of price inequities. In April 1973 AID personnel discussed with a Government official the fact that the price of white potatoes had been frozen since 1969, while the costs of production and marketing had increased.

In May 1973, the controlled retail, wholesale, and producer prices were increased. It was not until February 1975 that these controlled prices were again increased, although sharp cost increases had occurred. In February 1975, the retail price for potatoes was increased from S/5.20 to S/7.00 a kilo. According to the agricultural attache, a January 1975 newspaper article stated that potatoes were in short supply and were selling in some places at black-market prices of S/18.00 to S/20.00 a kilo. We were told that sometimes potatoes could be purchased at the retail level only if certain other purchases were also made.

The agricultural attache indicated that (1) most price increases come after months of complaints by farmers and (2) price controls and subsidies contribute to product losses through contraband trade.

Rice

A Government policy designed to increase rice production is a guaranteed price for rice established before planting and based on estimated average cost to produce plus a margin for profit and an incentive markup. Four years ago, a price was established at S/5.00 a kilo for rice produced in the jungle area. In September 1973 the price was increased to S/6.50 and in January 1975 to S/9.50 a kilo. The price in the coastal area was fixed at S/.50 less because of lower transportation costs.

The rice program was initially considered successful and Peru exported some rice in 1973. However, we were told that production decreased because of the time between price changes. In 1974, production declined 27 percent from the high of 591,000 metric tons produced in 1971, with an 18-percent decline in plantings.

CREDIT

Farms were said to be operating at less than optimum levels because of the lack of credit.

An official of the bank promoting agriculture in Peru commented that the bank emphasizes that loans are to be made to cooperatives rather than to individual farmers. Approximately 70 percent of the bank's available credit goes to cooperatives. The official said that 60 to 70 percent less credit is available in Peru than at one time and that the demand for credit has risen with the onset of the agrarian reform, causing an extremely tight money situation.

The credit deficit was indicated to be substantial. AID feels it would be desirable to perform an indepth analysis of the credit availability to determine the actual relationship between potential needs and present credit supply.

The Government policy of giving a low interest rate of 7 to 8 percent on loans to cooperatives was criticized by a group of agricultural economists, who said that a low rate encourages mechanization, which is not needed in Peru because of its labor surplus

EXTENSION SERVICES

Although Peru does have an extension service, there are too few personnel, and they are generally underpaid and lack adequate transportation to reach the farmers in an effective program. The Government wants cooperatives to provide their own extension services with technical assistance being provided by the Ministry of Agriculture. However, the farmers in the cooperatives feel that their other needs take precedence over hiring their own extension agents.

The manager of a central cooperative said that the cooperatives are not satisfied with the agricultural extension workers they had hired. Farmers rely much more on each other for agricultural information than on the extension workers. He said that extension agents appear to be educated in agricultural theory but lack the capability to convey their knowledge to the farmers.

The agricultural attache, in his February 1974 agricultural situation report, said that a major problem preventing Peru from moving forward seems to be the shortage of management and technical personnel. Also, the Peruvian Ministry of Agriculture's report for July to September 1974 states that livestock development is hindered by a lack of adequate pasture specialists at the agrarian zone level.

Peru's universities grant degrees in agronomy, and 98 institutes train about 3,000 technicians in agronomy each year. The technicians find their training is insufficient for either finding employment in the private sector or gaining acceptance in the closed structure of the agricultural cooperatives. University graduates have less difficulty finding jobs because the universities have gradually adapted their program to fit the agrarian reform and many agronomists are needed to carry out the land reform process.

The International Potato Center was established in 1971 to develop and disseminate knowledge on greater use of the potato as a basic food. There are also four regional experimental stations.

Farmers need technical information about what and how to plant to obtain highest returns. Without an effective extension service or other means for reaching the farmer, it is doubtful whether research efforts effectively help farmers increase production.

LAND TENURE

The Government's most emphasized program since 1969 has been agrarian reform. The program permits expropriation of large landholdings for the following reasons: (1) landholdings exceed the limits set which may vary by region and type of farm, (2) there is absentee ownership, (3) the owner has some other primary occupation, (4) the owner has non-Peruvian citizenship, (5) the land is improperly used, (6) laborers have grievances over wages, and (7) there are social responsibilities.

As of January 1975 total expropriations through 1974 were reported to be about 7.2 million hectares with title transfers for about 5.5 million. The final goal of the program is 11 million hectares by the end of 1976.

The agrarian reform's impact has been greater on Peru's coastal area, where all the sugar estates and a large number of estates producing cotton, rice, and other crops greatly exceeded the limit set for irrigated land. Different limits have been fixed for farms in the Andes, and farming operations in the jungle region have generally been exempt from the agrarian reform.

The agricultural attache reported that many small and medium property owners are concerned about (1) uncertainties in the interpretation of the agrarian reform law and (2) expropriations of coastal farms below the set limit.

Peruvian Government policies have been increasingly oriented toward cooperative forms of farm organization and management because available land from expropriation would be insufficient to provide economically viable farm units to the several hundred thousand landless rural families. The rationale of cooperatives is to preserve the core former hacienda as an efficient economic unit, capable of generating surpluses to be used for onfarm investment and to provide such social services as education and health.

An AID economist said the goal of the Peruvian Government is apparently not only to redistribute large landholdings to cooperatives, but also to force small farmers to join the cooperatives by giving the cooperatives preferential treatment. The Government's policies of favoring the cooperatives include making credit easier for them to obtain and, once the credit is obtained, giving them more favorable interest rates.

Forming cooperatives encourages mechanization, according to AID economists, because when the cooperatives were adjudicated, the members were given title to the land and now they are afraid to hire other laborers, who will want to become members and share in the profits.

The AID economist added that the cooperatives are supposed to pay former farm owners for the taxed value of their lands at a 6-percent interest rate over 20 years. The Government's policies cause payments to former farm owners to be reinvested outside of the agricultural sector, causing a transfer of resources from agriculture to the rest of the economy.

EFFORTS TO INFLUENCE REMOVAL OF DISINCENTIVES

AID has been working in Peru for about 20 years. It has had a low profile since 1968 due to changes in its policy concerning the style and size of operations having a bearing on relations between United States and Peru. U.S. officials were reluctant to discuss efforts to influence Peru to reduce disincentives but did indicate that such efforts have been accomplished largely at technical levels. This is due to the limited size of AID programs, to the complexity of the subject (balancing producer incentives against reasonable prices for consumers), and to the realities of U.S.-Peruvian relations.

DISINCENTIVES TO AGRICULTURAL PRODUCTION IN URUGUAY

Uruguay has about 3 million people, of which over 90 percent are literate, and a low annual population growth rate of about 1.2 percent. By 1955, after half a century of almost uninterrupted prosperity, its per capita income had reached a level similar to those of some of the industrialized Western European countries. Since then, however, no real economic growth on a per capita basis has occurred, except for some improvement in 1969 and 1970.

A long-term decline in the world market price for wool--a leading export along with meat and hides--has been a major factor in its economic difficulties. The economy suffered a setback in 1974 because oil prices increased and the European Common Market curtailed meat imports from Uruguay. Also, the cost of the varied public and social services that the people expect has contributed to budgetary deficits and high inflation.

Uruguay has abundant pasture land, a good water supply, and a temperate climate in which freezing temperatures are almost unknown, all of which have contributed to making stockraising the basis of the economy.

The agricultural attache's January 1975 report stated that Uruguay's agricultural production increased 13 percent in 1974 and that most crops and livestock products exceeded the previous year's production. The production increases were generally attributed to positive actions by the Government to improve its pricing policies, such as increasing the support prices for wheat, sugar, and sunflower oil.

AID officials said that two AID loans, authorized in late 1974, complement and are supportive of Uruguay's policies.

Uruguay's wheat pricing policy, a land tax designed to be an incentive to agricultural production, and the agricultural extension service in Uruguay are discussed in the sections following.

PRICING

The Government has followed a policy of fixing producer prices of wheat since 1965. This was first done by limited support buying in the market; however, since 1973, the

Government has been buying the total wheat crop at a previously announced price.

The Government sells the wheat to mills at set prices. Before March 1975, the price to the mills was 40 percent of the price paid to the producer. The price was subsidized by the Government from tax receipts. Since March 1975, the mill price is not to be subsidized. The Government also controls the price of bread and sells any surplus wheat on the international market.

In a May 1973 report the World Bank stated that pricing policy in Uruguay has traditionally been consumer oriented. The primary objective had been to keep retail food prices in Montevideo as low as possible and to restrict price increases to a politically tolerable level.

According to the report, prices have failed to act as production incentives because:

--Extensive measures have been taken to lag food price inflation behind general price inflation, or to at least prevent food prices from leading inflation (the consumer price index rose 94.7 percent in 1972, 77.5 percent in 1973, and 107.3 percent in 1974).

--In an inflationary economy, the rate at which commodity prices move in relation to overall cost inflation is important. This has been particularly pronounced for annual crops, for which prices have been held at levels set early in the season even though these prices may have eroded substantially in real terms by harvest time.

A Texas A&M agricultural economist under AID contract in Uruguay prepared an econometric analysis of the wheat production sector for 1950-73. This analysis showed that rainfall during the land preparation and planting period is the most important variable in determining the yearly change in area planted in wheat. However, the analysis also showed that producers respond positively to an increased price of wheat in the previous year. Therefore, the economist said, the 1974-75 crop was, as expected, much higher.

A World Bank representative in Uruguay said ~~that~~ price alone is not enough of an incentive. It was important that the Government established credibility by paying the producers in a timely manner--this had previously been a problem. Also, a farm cooperative member emphasized the farmers' lack of confidence in the Government.

In August 1973 the Government announced that the new price to producers for wheat would be the same as the international price. Since the 1973-74 crop had been planted in June and July 1973, the announcement had no effect on that crop. However, the Government established credibility by paying the announced prices.

The wheat area planted in 1974 was 456,700 hectares--a 56-percent increase over the 292,100 hectares planted in 1973. Production was estimated at 450,000 metric tons, as compared to 297,000 metric tons for the 1973-74 crop--a 52-percent increase. The increase was generally attributable to favorable weather and an increase in producer prices.

The following chart shows the fluctuations in Uruguay's wheat production and area sown during 1970-75. In the prior decade, production fluctuated from 237,000 to 646,000 tons; thus Uruguay can greatly increase wheat production. Producer prices were greatly increased for the 1973-74 crop to within 15 percent of the world market price, but prices were dropped for the 1974-75 crop to 23 percent below the market price.

Crop year	Wheat production	Area sown	Producer price per ton (note a)	World market price per ton (note b)
	(thousands of metric tons)	(thousands of hectares)		
1970-71	388	337	$ 40.44	$ 78.24
1971-72	302	340	79.30	84.92
1972-73	187	185	87.80	117.82
1973-74	297	292	200.63	235.53
1974-75	450	457	156.13	202.03

a/ Producer prices were converted into dollars by using the commercial exchange rate for January, the month of greatest producer marketing in Uruguay.

b/ World market prices represent cost of No. 1 Canadian Western Red Spring Wheat, including insurance and freight, Rotterdam (average price for 1971 and 1972, January price for 1973 through 1975).

According to Embassy officials, the Government changed its policy to pay the producers a price close to the world market price because Uruguay could not obtain Public Law 480 wheat in fiscal year 1974. The news media reported that farmer dissatisfaction with receiving less than what the Government was paying for commercially imported wheat was a factor.

Self-help measures included in Public Law 480 sales agreements showed a need for the Government to change its pricing policy. The 1968 sales agreement included a self-help measure to "review present price policy and develop a stable price and incentive program to increase livestock and agricultural production." In the 1972 agreement, the Government agreed to establish a permanent mechanism to coordinate institutions in establishing a support price, credit availability, taxes, subsidies, and costs related to wheat, so as to obtain desired levels of wheat production during years of normal weather conditions. The Government was also to publicly announce this policy and adjust support prices as required by price level and exchange rate changes.

The United States provided Uruguay about $6 million in wheat and wheat products in each of 1968 and 1969, minor amounts in 1970 and 1971, $500,000 in 1972, and $7 million in 1973. However, neither this assistance nor the self-help provisions have helped bring production up to the most recent high of 646,000 tons in 1964, or even to the previous average of 465,000 tons during 1961-65.

TAXES

A tax that has been collected since 1971 is the imputed land productivity tax, referred to as IMPROME. IMPROME is a tax or the estimated productivity of land owned. The tax liability is based on the size and productivity of the land, the access to market, and the condition of the soil. The production index for 1975 on which the tax is based ranges from 0 to 263. The average productivity is 100, or the estimated ability for a hectare of land to produce an equivalent of 48 kilos of beef, 3.9 kilos of wool, or 7.5 kilos of mutton on the hoof. The producer, though taxed on the above basis, can produce any product he wants to, or not produce anything.

IMPROME favors the smaller farmers. The tax system permits a tax discount on 200 hectares for all landowners of 2,500 hectares or less. In addition, all landowners are permitted a tax deduction of up to 30 percent on the first

2,500 hectares, if they can show that they have invested in fertilizers, pasture seed, permanent wire fences, and other specified improvements.

IMPROME's primary objective is to act as an incentive to agricultural production. The Government assumed this would occur because the tax would prompt inefficient producers to produce more to cover the tax or else give up the land. Also provisions of the tax that permit reductions for improving the soil should in turn improve production.

Another IMPROME objective was to replace export taxes levied primarily on beef and wool. AID has reported that export taxes, a major source of Government income from the agriculture sector, maintain net export prices of agricultural commodities below world levels (consistent with controlled internal prices). Given these low prices, the agricultural producer has found that he can maximize profits by engaging in an extensive type of agriculture. He relies on the natural fertility of the soil and concentrates on livestock production rather than crop agriculture because he has found that using modern technology tends to add more to cost than it does to revenue.

An AID official said that the poor use of available land limits production. Many big ranches are not being efficiently used. Rich farmers can afford to let their cattle roam on their lands and survive without using inputs. Some of the range lands might be better used if they were planted. The official believes that IMPROME will induce better land use and productivity.

Export taxes have been allowed as a credit toward IMPROME. During 1974 the export tax was being phased out. In March 1975 a Government official said that the export taxes have been eliminated; however, there are plans to reinstitute them to pay for a beef-canning factory.

AID officials commented in July 1975 that the export taxes on wool have been virtually eliminated and those on beef substantially reduced. The resultant revenue loss is being compensated by IMPROME collections which have risen from 5.2 billion pesos in 1972 to 41.3 billion pesos in 1974. Export taxes have the advantage of being easy to control and collect. IMPROME, levied on presumed income based on estimated production of land owned, is more difficult to assess, control, and collect.

According to U.N. Development Program representatives, IMPROME is a modern, useful tax intended not only to produce income but to force producers to increase production. They believe it is too early to say whether IMPROME is responsible for improving production, but they believe the tax is good because it applies pressure for increased productivity. They believe it will take about 5 years before the tax can be fully evaluated.

EXTENSION SERVICES

Officials and farmers interviewed believed agricultural production would increase if an adequate extension service was organized.

The Government employs 35 to 40 county agents whose responsibilities theoretically include agricultural extension work. Several sources, however, said that the county agents are not effective extension workers. According to a U.N. Development Program representative, the agents normally work a 6-hour day, rarely visit farmers because they have no transportation or an insufficient transportation allowance, and are paid so little that most need two jobs.

One county agent said that more personnel, increased salaries, and literature for distribution to farmers were needed.

The Minister of Agriculture said that Uruguay does not have a formally organized extension service because an attempt to organize one about 20 years ago failed due to (1) lack of resources, (2) lack of technology, (3) too much emphasis on social programs, and (4) resistance of farmers to change. Limited money and lack of trained personnel are the basic reasons given for the Government's not trying to improve extension services over the past 20 years.

Part of an AID $5 million technical assistance loan is to create within the Ministry of Agriculture a research and technical assistance capability for delivering modern agricultural technology to the Uruguayan farmer. The AID proposal for the loan and officials interviewed stated that Uruguay does not have an extension service in the traditional sense but that the extension activity that exists is associated with supervised credit programs; livestock associations; other specialized organizations; and with private enterprises, such as fertilizer and chemical companies, veterinary supply houses, and farm machinery dealers.

Uruguay has five agricultural research centers, each specializing in specific areas. The lack of an organized extension service prevents much of the information developed at the centers from reaching the farmers. Discussions with agricultural experts doing experimental work at the centers under contract with AID indicated that an extension service is greatly needed.

An information specialist associated with the contract was hired to develop ways of transmitting information developed at the experimental stations to growers. According to him, Uruguay has too few people (about five) transmitting this information and they consistently have a backlog of reports to publish. To expedite the dissemination process, he recommended leaflets highlighting discoveries at the centers which could be prepared and distributed expeditiously.

Another system of transmitting such information is the "ALARM" system, which uses commercial radio stations to tell growers when to spray their crops. Before the development of the system, growers were periodically spraying their crops without knowing whether the spraying was needed. This method was both costly and ineffective because growers were spraying at the wrong times.

EFFORTS TO INFLUENCE REMOVAL OF DISINCENTIVES

AID noted that the determining elements leading to improved policies affecting agriculture during the past year and half were internal economic and political factors and not the offer or withholding of external support by international agencies. This is necessarily the case where the policies in question affect a vital sector of the economy and must therefore reflect national political and economic realities. AID further noted that U.S. assistance has always been relatively small and has never been viewed as a mechanism for exercising influence. The absence of new AID lending from 1970 through 1974 reflected a need to await an environment conducive to effective loan utilization, not a decision to withhold assistance.

DISINCENTIVES TO AGRICULTURAL PRODUCTION BY COMMODITY AND COUNTRY

Country and commodity	Disincentives to agricultural production									Remarks
	Controls on producer prices	Controls on consumer prices	Non-competitive buying	Export control	Export taxes	Import subsidies	Exchange rate controls	Restrictions on credit & land tenure	Restrictions on movement of agri. products	
MEXICO										
Sugar	X	X		X						
Livestock				X	X			X	X	
Other foodstuffs		X		X	X				X	
DOMINICAN REPUBLIC										
Rice	X	X		X		X		X	X	
Beef	X	X		X	X					
Sugar		X			X					
Corn	X	X		X						
Dairy	X	X								
TRINIDAD & TOBAGO										
Broilers	X	X								
Rice		X	X							
COSTA RICA										
Rice	X	X	X		X		X			
Beans	X	X	X		X	X	X			
Beef	X	X		X	X		X			
Sugar	X	X	X		X		X			
Dairy	X	X								
Bananas					X		X			
Coffee	X	X	X		X		X			
Corn	X	X								
GUATEMALA										
Meat		X								
Sugar		X								
Cotton	X									
Milk	X	X								
BELIZE										
Sugar	X	X			X			X		Disincentives are substantial. Price controls created shortages.
Beef	X	X						X	X	
Most foodstuffs	X	X						X		
HONDURAS										
Bananas					X					
Sugar	X	X	X							
Milk	X	X								
Cattle								X		

X denotes the existence of disincentives for the listed commodity or group of commodities

Country and commodity	Disincentives to agricultural production									Remarks
	Controls on producer prices	Controls on consumer prices	Non-competitive buying	Export control	Export taxes	Import subsidies	Exchange rate controls	Restrictions on credit & land tenure	Restrictions on movement of agri. products	
NICARAGUA										
Milk		X								
Cotton, Coffee, Tobacco					X			X		
Bananas, Rice, Sugar					X					
Hides, Cattle, Beef					X					
PANAMA										
Beef	X	X		X						
Other consumer items	X	X	X			X				
EL SALVADOR										
Meat				X						
Milk	X	X								
Grains	X	X		X						
Sugar			X							
Other foodstuffs	X	X	X							
ARGENTINA										
Beef	X	X			X		X			Multitiered exchange rate.
Major grains	X	X		X	X		X			
Sunflower seeds	X		X							
Oilseed products				X	X		X			Export of oilseeds is prohibited.
Other commodities							X			All agri. commodities are subject to exchange rate control.
Wool							X			
BOLIVIA										
Cotton					X					
Many food products	X	X	X						X	

Country and commodity	Disincentives to agricultural production: Controls on producer prices	Controls on consumer prices	Non-competitive buying	Export control	Export taxes	Import subsidies	Exchange rate controls	Restrictions on credit and land tenure	Restrictions on movement of agri. products	Remarks
BRAZIL										
Beef	X	X		X						Restricted slaughter off-season.
Milk	X	X								
Soybean oil				X						Export prohibited.
Peanuts (excl. HPS)				X						Export prohibited.
HPS peanuts				X						
Peanut oil				X						
Cotton				*						MEP - world price.
Frozen orange juice concentrate				*						MEP above world price.
Sugar				X	*					Taxes are used to promote production and marketing.
Cocoa					*					
CHILE										
Wheat & wheat products	X	X	X	X		X	X	X		No farms over 80 irrigated acres or equivalent.
Sugarbeets	X	X	X	X		X	X	X		
Vegetable oil		X	X	X			X	X		
Beef							X	X		
Milk & milk products	X	X					X	X		
Rice	X	X					X	X		
COLOMBIA										
Sugar		X		X						All imports/exports have to be licensed.
Corn & foodgrains		X	X	X		X	X	X		
Soybeans		X	X	X		X	X			
Coffee	X		X	X	X		X			
Wheat		X				X	X			
Cotton				X		X	X			
Palm oil		X	X	X			X	X		
ECUADOR										
Coffee, cocoa					X					
Sugar				X	X					
Bananas					X					
Most basic foods		X								
Milk	X									
PARAGUAY										
Beef	X	X		X						
Soybeans	X				X					
Wheat	X									
Sugarcane	X									

*Not a disincentive at the present time.

Country and commodity	Disincentives to agricultural production: Controls on producer prices	Controls on consumer prices	Non-competitive buying	Export control	Export taxes	Import subsidies	Exchange rate controls	Restrictions on credit & land tenure	Restrictions on movement of agri. products	Remarks
PERU										
Livestock					X			X		Agrarian reform had its effect on Peru's agriculture. Restriction on movement of agricultural products applies to many commodities.
Cotton, wool				X	X			X		
Coffee, potatoes, beans	X	X	X							
Wheat, rice	X	X	X	X		X				
Sugar, tobacco	X	X	X	X						
Oilseeds & feedgrains	X	X	X			X				Indirect subsidies for wheat only. Non-competitive buying applies to tobacco only.
Meat, milk	X	X	X							
Fish meal & oil			X	X						
Dairy prod. & veg. oils						X				
URUGUAY										
Livestock	X				X		X		X	
Wool	X				X		X			
Grains	X				X		X			
Oilseeds	X				X		X			
Milk	X	X								
Sugarcane & beets	X									
Wheat			X							
VENEZUELA										
Sugar		X		*						Controls on consumer prices are offset by minimum producer prices. On the average, agricultural production is not affected by such policies.
Tobacco		X								
Rice		X		*						
Feedgrains		X				*				
ANGOLA										
Coffee					X					
GHANA										
Cocoa	X		X					X		
Seed cotton	X		X					X		
IVORY COAST										
Coffee	X		X							
Cocoa	X		X							

*Not a disincentive at the present time.

 APPENDIX IX

Country and commodity	Disincentives to agricultural production									Remarks
	Controls on producer prices	Controls on consumer prices	Non-competitive buying	Export control	Export taxes	Import subsidies	Exchange rate controls	Restrictions on credit & land tenure	Restrictions on movement of agri. products	
KENYA										
Wheat	X	X								
Corn	X	X								Large scale farming
Sugar	X	X								is discouraged.
Rice	X	X								
LIBERIA										
Many commodities	X	X	X							
MOROCCO										
Oranges					X					Expropriated land
Wheat products		X				X				from foreign
Other staple foods	X	X						X		owners.
NIGERIA										
Cocoa	*		X					X		Farmers' price for cocoa is highest in
Seed cotton	X		X					X		West Africa.
SENEGAL										
Peanuts	X		X							
SIERRA LEONE										
Some commodities	X		X							
ZAIRE										
Palm oil	X	X								
Coffee	X	X	X		X					Two-tier exchange
Tobacco	X	X	X		X					rate.
Corn	X		X							
BANGLADESH										
Wheat				X		X				Effect of import
Rice				X		X				subsidies is margi-
Edible oils				X						nal at present prices.
SRI LANKA										
Rice						X				

*Not a disincentive at the present time.

Country and commodity	Disincentives to agricultural production: Controls on producer prices	Controls on consumer prices	Non-competitive buying	Export control	Export taxes	Import subsidies	Exchange rate controls	Restrictions on credit & land tenure	Restrictions on movement of agri. products	Remarks
INDIA										
Jute				X	X		X			
Cereals				X			X	X		
Rice	X	X		X			X	X	X	
Wheat	X	X		X			X	X	X	
Cotton				X			X			
PAKISTAN										
Wheat, flour	X	X		X		X		X	X	Wheat is heavil subsidized. Wh and veg. oil ex- ports are bann Interdistrict & interprovincial strictions on m ment of agri. p ducts are impo from time to t particularly aft harvest.
Vegetalbe oil	X			X		X		X		
Seed cotton				X					X	
Rice			X					X	X	
Raw cotton					X					
BURMA										
Rice	X		X	X						
INDONESIA										
Rice	X	X	X			X		X	X	
Sugar								X		
MALAYSIA										
Palm oil					X					
Rice	X	X								
PHILIPPINES										
Sugar	X	X	X	X	X					
Rice	X	X		X		X				
Desiccated coconuts					X					
Copra				X	X					
Coconut oil		X			X					
THAILAND										
Rice		X	X	X	X					
Sugar		X		X	X					
EGYPT										
Cotton	X		X					X	X	
Rice	X		X					X	X	

Country and commodity	Disincentives to agricultural production: Controls on producer prices	Controls on consumer prices	Non-competitive buying	Export control	Export taxes	Import subsidies	Exchange rate controls	Restrictions on credit & land tenure	Restrictions on movement of agri. products	Remarks
GREECE										
Cottonseed cake	X			X						
Cottonseed oil	X	X		X						
Cheese				X						Soybean oil competes with olive oil. Sugar prices are usually fixed above the world price level but now they are lower.
Wheat, bread		X		X		X				
Feedgrains, meat, eggs				X						
Milk	X	X								
Corn, soybean oil						X				
Olive oil	X	X		X						
Sugar	X	X	X	X		X		X		
IRAN										
Wheat		X				X		X		
Rice		X				X				
Oilseeds & veg. oil		X				X				
Livestock, meat & milk		X				X		X		
JORDAN										
Wheat flour		X				X				
SYRIA										
Seed cotton	X		X	X				X		
Wheat and barley	X		X						X	
TURKEY										
Wheat	X	X		X		X		X	X	
Cotton										Overall policy is ineffecient.
Tobacco										
Livestock	X	X		X				X	X	
SPAIN										
Dairy	X	X				X				
Olive oil	X	X		X	X					
Meat and poultry	X	X				X				
Sugarbeets	X	X				X				

Source: USDA Foreign Agriculture Supplement, March 1975, "Agricultural Production in Developing Countries: A Policy Survey."

THE SECRETARY OF THE TREASURY
WASHINGTON 20220

JUL 29 1975

Dear Mr. Fasick:

Thank you for your letter of June 17, and for the opportunity to comment on the G.A.O. draft report to Congress, entitled, "Disincentives to Agricultural Production in Developing Countries."

The Treasury Department heartily welcomes the appearance of such a report. While numerous discussions of the global food problem have focused on the aid policies of donor countries, there has been relatively little attention paid to what the developing countries themselves could do to grow more food.

In general, we agree with the scope, substance, and tone of this report. In certain places, as noted in the attached comments, we believe the report suffers somewhat from outdated information. More specific remarks are attached.

We look forward to the publication of the report.

Sincerely yours,

William E. Simon

Mr. J. K. Fasick, Director
International Division
U.S. General Accounting Office
Washington, D.C. 20548

Attachments

GAO note: Treasury's supplementary comments were considered in finalizing the country summaries.

THE SECRETARY OF THE TREASURY
WASHINGTON 20220

SEP 3 1975

Dear Mr. Fasick:

Thank you for giving the Treasury Department the opportunity to comment on Part II of the draft G.A.O. Report, "Disincentives to Agricultural Production in Developing Countries".

We agree with your recommendation that donor countries should pay more attention to ways in which recipient governments can overcome existing disincentives to agricultural production. In that connection we are pleased that the mandate of the newly-formed Consultative Group on Food Production and Investment (CGFPI) includes the promotion of "more effective use of available resources". We will do our best to ensure that this critically important dimension of the global food problem receives adequate attention in future international discussions.

As we stated in response to Part I, we agree with the general thrust of the report and look forward to its publication. More specific comments and questions are enclosed.

Sincerely,

William E. Simon

Mr. J. K. Fasick, Director
International Division
U.S. General Accounting Office
Washington, D.C. 20458

Enclosures

GAO note: Treasury's supplementary comments were considered in finalizing the report.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREIGN AGRICULTURAL SERVICE
WASHINGTON, D.C. 20250

AUG 28 1975

Mr. J. K. Fasick
Director
International Division
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Fasick:

This is in reply to your letter of July 15 requesting the Department's comments on the GAO report to Congress on "Disincentives to Agricultural Production in Developing Countries."

The report analyzes the impact of various policies affecting food production in eight developing countries. Generally the findings of the report are in line with those published in March by the Foreign Agricultural Service. However, attention is called to the first paragraph on page 13 discussing subsidies for inputs and price guarantees. We would like to note that input subsidies are often essential to induce farmers to switch from backward methods to new ones. In addition, administratively, governments are often better able to handle a subsidy program than a price support one which is more demanding and almost impossible to manage for perishable commodities.

In relation to the recommendation that "as a prerequisite for concessional food aid for other than emergency or disaster relief purposes, determine that such assistance is not to be used to postpone needed agricultural reform, that farmers have adequate economic incentives to realize domestic production potential and that such assistance is tied into specific agricultural development plans of the country" which is specifically directed toward the Secretaries of State and Agriculture and the Administrator of AID, the 1966 revision of Public Law 480 required the inclusion of self-help measures in all Title I agreements. The inclusion of these provisions reflects concern that P.L. 480 activities not act as a disincentive to increasing local production. We believe that the program has not been a significant disincentive factor in the recipient countries. In fact, the inclusion of these self-help measures is a requirement that the recipient countries take positive action to increase production. These provisions like the other provisions of a Title I agreement, must be concurred in by the government of the recipient country.

P.L. 480 programs have many objectives from agricultural market development to supporting foreign policy. The U.S. Government is working in many ways to help remove disincentives to local production in less-developed countries as well as provide technical assistance to help achieve greater agricultural productivity. P.L. 480 is only one of the tools used in this endeavor.

In view of the various objectives already being met by P.L. 480 agreements and the positive impact of the program in helping less-developed countries help themselves, we do not feel that the GAO recommendation to make the actions referred to above prerequisite for concessional food aid is practical or desirable. We will continue our efforts to ensure that P.L. 480 programs do not discourage, but rather encourage, recipient countries' actions to improve their own agricultural production.

We appreciate the opportunity to comment on this draft report.

Sincerely,

Brice K. Meeker

Brice K. Meeker
Acting Administrator

GAO note: Page reference in this letter may not correspond to page number in the final report.

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

SEP 9 1975

Mr. J. K. Fasick
Director
International Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Fasick:

Forwarded herewith are the joint Department of State-Agency for International Development comments on the General Accounting Office's draft report "Disincentives to Agricultural Production in Developing Countries." These comments represent inputs from several A.I.D. and State Bureaus. I know you will give them full consideration in preparation of your final report on this important subject.

We appreciate the opportunity to provide comments on this timely draft report. We would be pleased to work with your staff in considering any revisions to the report you care to make. If we can be of any assistance, please call on us.

Sincerely yours,

Harry C Cromer

Harry C. Cromer
Auditor General

Attachment

Agency for International Development - Department of State
Comments on the GAO Draft Report
"Disincentives to Agricultural Production in Developing Countries"
dated 15 July 1975

This report is a very general review of government policies and institutional arrangements that may diminish farmers' incentives for increasing food production in developing countries. The need for adequate economic incentives is much more generally recognized and the existence of actual disincentives much more widely established now than previously. The report correctly identifies incentives as an important economic issue in LDC food production and provides a useful survey of disincentives from government policies and institutions in India, Indonesia, Kenya, Pakistan, Peru, Sri Lanka, Tanzania, and Uruguay. The report concentrates on price, tax and exchange-rate policies, restrictions on internal food movements, credit systems, research and extension services, land tenure arrangements and food aid, all of which are recognized by LDC governments and assistance agencies to be important elements in the solution of food and agricultural development problems.

AID and the Department of State fully concur with the GAO conclusion about the need to improve policies in LDCs for the purpose of increasing their food production. This need is eloquently stated in the quotations in the draft report from FAO, World Food Conference, IBRD, the Secretary of State, and the President's Economic Report for 1975. It is the basis for AID's intentions and strong efforts to direct the majority of its resources to the solution of priority food production and nutrition problems in LDCs, as mandated by the Foreign Assistance Act of 1973.

We acknowledge GAO's recognition that government policies and institutions that affect food production are very complex and sensitive issues, and highly interrelated with other policies and parts of the economy. The draft report states candidly, "our discussion greatly oversimplifies the problem and does not purport to consider all of the relevant technical aspects." (p. 8). In spite of this caveat, we believe strongly that the report as written lacks balance. It does not reflect adequately either the complexities or the realities of actual policymaking in LDCs. It should give more credit to what LDC governments are doing to provide incentives to their farmers and to the role of the U.S. and other aid donors in improving policies and programs in the LDCs. We believe that in many countries government policies that act as disincentives are much better understood and programs in the agricultural sector are now more fully directed to their removal than is recognized in the draft report. Our position reflects the information about the countries surveyed by GAO contained in the attachment to this memo as well as information about other countries and assistance agencies.

For years the effects of general monetary, exchange and trade policies on agricultural production were not well understood. This situation is not helped by over-simplification and over-generalization about complex policy issues. We request that the draft report be revised to recognize that the problems are not as easy to diagnose nor solutions so simple to recommend as the report now seems to suggest. This recommendation applies even more strongly to the country summaries appended to the report. Detailed comments on the country summaries are attached to this memo (with the exceptions of Peru and Uruguay - see page 24).

One fundamental point is that incentives are necessary but not sufficient to increase output. Where there is no new technology to be adopted, or where other constraints are binding, incentives alone can do little to increase production. Incentives play a key role in encouraging farmers to take advantage of profitable production opportunities but can not in themselves create the production potential.

An implication of this point is that policies to create incentives do not stand alone but serve to complement other policies and programs. Investments in agricultural research, supplies of modern inputs, and infrastructure are all needed if incentives are to be effective in stimulating increased output.

A second major point is that policymaking must be responsive to more than the simple dictum "more incentives are always preferred to less." Food prices are a good example. Higher food prices provide more incentives to producers. But what about the poor, especially poor urban families and rural landless laborers that depend upon market purchases for their food supply? Higher food prices hurt poor people, a trade-off that can not be ignored politically by policymakers in most LDCs. So what is needed are adequate incentives, which, in turn, benefit consumers through larger supplies and reasonable prices of basic foods.

The policies reviewed in the report should be appraised from the perspective of the multiple objectives of LDCs, including production, efficiency, equity, employment, balance-of-payments equilibrium, and price stability. A positive approach—one that provides opportunities and incentives to farmers—must be seen in the context of a coherent and comprehensive strategy for agricultural and overall economic development for the country. Higher food prices, in the absence of a major emphasis on the factors that permit output to grow, may not lead to higher output but may just be inflationary. The rationale for low food prices in relation to industrial growth, and how overvalued exchange rates work against this objective, are not discussed adequately in the report.

Historically, the key to the development process was often viewed as the transfer of investment capital from large traditional agricultural sectors to small but growing industrial sectors. Turning the terms of trade against agriculture (i.e., lowering the prices of food relative to industrial products) has been a common means to force such transfers of investible resources. More direct and equitable transfer mechanisms (e.g., income and land taxes) have seldom been politically acceptable or administratively feasible. Experience and analysis have shown, however, that resource transfers in support of national priorities for growth and equity may more often need to favor agriculture, especially if LDCs are to have the production capacity and effective demand to meet minimum nutrition objectives for their growing populations and reduce underemployment of labor and inequalities in income distribution.

Pursuit of multiple goals greatly complicates development planning, policymaking, and programming. Improving income distribution, reducing underemployment, and raising nutrition levels are some of the goals that are being increasingly emphasized in LDCs. More and more, countries and aid agencies are placing priority on programs whose benefits will be widely distributed by the output and productivity increasing process itself, rather than deferring concern with equity objectives until adequate output levels have been achieved. LDCs and aid agencies are finding it increasingly urgent to identify the interdependent policies, programs and projects needed to achieve multiple objectives for economic and social development and to deal with the trade-offs involved when those goals conflict. We urge that the report recognize the important and difficult task of insuring that national and sector policies are consistent with a country's multiple economic and social goals.

To comment specifically on the methodology employed, the report describes disincentives at a given point in time. It implicitly assumes that these disincentives have caused poor output performance in the countries surveyed. Other factors, such as floods, droughts, and political instability, that may have adversely affected agricultural production are not considered. Neither does the report deal with the problems of political factors and social philosophies as they impinge on policy choices and complicate the policymaking process. It provides little data and generally does not document its conclusions in terms of output losses, resource inefficiency, or other quantitative assessments of effects.

The discussion of food aid is another example of an unbalanced treatment of an important issue. While some food aid may have diminished incentives for domestic production, there are other cases where it has not or where there have been positive benefits. The disincentive effects of food aid can often be mitigated and food aid transformed into a useful tool in a program of development assistance.

The report implies P.L. 480 concessional food programs should be used for economic and agricultural development purposes only, and its recommendations have been based solely on that point. This approach ignores the fact that the Act is multipurpose legislation, which is, as stated in Section 2, "to expand international trade; to develop and expand export markets for United States agricultural commodities; to use the abundant agricultural productivity of the United States to combat hunger and malnutrition and to encourage economic development in the developing countries, with particular emphasis on assistance to those countries that are determined to improve their own agricultural production; and to promote in other ways the foreign policy of the United States."

In the report, little mention is given to humanitarian/emergency food use and no mention is made of P.L. 480 programs undertaken for market development or to realize other foreign policy aims. Most or all of these factors are considered in the approval process for each P.L. 480 agreement. To concentrate on one purpose to the exclusion of others would not accord with the provisions of P.L. 480.

We share with GAO the concern that food aid can result in disincentives to agricultural production in developing countries. But we disagree with the implication that such disincentives are a necessary result of food aid and with the consistent tendency of the report to miss the offsetting factors that can convert food aid into a positive tool. Also, the report ignores the ongoing efforts that are already being made to develop stronger linkages between agricultural development and concessional food assistance under P.L. 480. In addition, we do not believe that the report has taken the other purposes of P.L. 480 into consideration. For these reasons we believe that the report's recommendation dealing with food aid should be substantially modified to state that to the extent appropriate, the efforts of LDCs to improve their own agricultural production, make reforms, and provide incentives should be taken into account in providing concessional food aid.

The report reflects a strong "free market" orientation. Especially in regard to pricing, the report should recognize that there is an inherent problem of production variation and consequent price instability in food commodity markets. It is unrealistic to expect an unregulated free market to work satisfactorily in the context of instability and scarcity. While it may be true that a "laissez faire" approach may be preferable to some of the existing LDC policies, it does not follow that non-intervention is the best policy approach that can be devised in a given country.

Recognizing the importance of LDC policies in relation to its legislatively-defined concentration on food production, nutrition and human resource development, AID supports and participates in the systematic appraisal of LDC development policies and programs and in the determination of priorities for improvements. This review process takes place both within the multilateral framework of country-oriented consultative groups and within AID's bilateral assistance program. AID establishes a Development Assistance Plan (DAP) for each recipient country, based on assessments of the performance and requirements of the key sectors, which identifies assistance priorities for AID in the context of the country's overall plan and availability of resources. This process involves periodic comprehensive reviews of government policies and institutions and recommendations for changes both by AID and multilateral agencies in consultation with the LDC government involved. We urge that the report recognize the positive steps being taken bilaterally and multilaterally to improve LDC policymaking.

The report raises fundamental questions concerning the responsibilities and rights of donor governments and/or agencies that provide concessional food assistance or any assistance to agricultural development to require that the recipient countries modify internal policies if such policies are believed to constitute constraints to increased production. The report states that most external assistance donors have been reluctant to take positive actions to motivate the developing countries to make such changes, a conclusion that fails to recognize the process of analysis and consultation described earlier. The position recommended by this report is that the United States Government should, as a matter of declared policy, require that farmers in recipient countries have adequate economic incentives to realize the production potential of their respective countries in order for the country to receive concessional food aid or other agricultural assistance.

Specifically, the report recommends that, as a prerequisite for U.S. assistance to the agricultural sector of a given country, the AID Administrator determine that neither LDC policy nor institutions are a disincentive to increased agricultural production. If conditions that create disincentives are found, then corrective action would be a necessary prerequisite for U.S. assistance to the agricultural sector.

This recommendation, while logically derivative from the concentration of the GAO report on the single objective of increasing food production, would be most difficult to implement mechanically in the complex political and social environment of the developing world. Concerted action by major donors, as recommended in the report, is unlikely as many donors are understandably reluctant to risk accusations of interventions in the sensitive internal affairs of LDCs. AID, in accordance with Congressional directives, is emphasizing a collaborative "low-profile" approach in which LDCs are encouraged and assisted to use U.S. assistance in accord with a well-developed, coherent plan for the country's economic and social development. For a variety of excellent developmental and policy reasons AID does not wish to unilaterally impose policy choices on LDCs from outside nor to use U.S. assistance levels as leverage for forcing rather than persuading and encouraging policy changes. Furthermore, the withholding of needed food could create hardships for innocent people and might thus be intolerable from both humanitarian and political viewpoint.

It is necessary to remember that many types of disincentives can not easily be "decreed" away and, further, that most agricultural programs and projects are designed to eliminate disincentives and/or to create production incentives. In short, it appears that the GAO recommendations, if strictly applied, would inhibit and adversely affect the Agency's effort to work collaboratively with and assist LDCs in their agricultural development efforts.

It would appear more realistic to recommend that AID, to the extent possible in a given LDC environment, exert its best efforts to modify LDC policies and institutions that are disincentives to expanded farm output and assist LDCs in taking effective action to provide adequate incentives. Further, AID should provide more assistance to LDCs in identifying and bringing to the attention of LDC policymakers those existing policies and institutions that may not be generally recognized or understood as disincentives and alternative policies and programs that could improve the performance of the agricultural sector in terms of the LDC objectives.

Throughout the draft report, representatives and reports of international organizations are specifically mentioned, e.g., World Bank representative said this. In order to maintain the confidentiality of the comments provided by these representatives it would be advisable that specific mention of an organization be revised to read "the report (or representative) of an international organization said..." We understand that this has been the way the GAO has dealt with such comments in other reports. Also, the identity of LDC officials should be concealed to protect them from possible political repercussions.

Attachment:
Comments on Country
Summaries

GAO notes:

1. State/AID supplementary comments are reflected where appropriate in the country summaries.

2. Page reference in this letter may not correspond to page number in the final report.

RECENT GAO REPORTS ON RELATED SUBJECTS

"The Overseas Food Donation Program--Its Constraints and Problems," ID-75-48, Apr. 21, 1975.

"The Agricultural Attache Role Overseas: What He Does and How He Can Be More Effective For the United States," ID-75-40, Apr. 11, 1975.

"Increasing World Food Supplies--Crisis and Challenge," ID-75-4, Sept. 6, 1974.

"U.S. Actions Needed to Cope With Commodity Shortages," ID-74-37, Apr. 29, 1974.

"Impact of Soybean Exports on Domestic Supplies and Prices," ID-74-34, released Apr. 24, 1974.

"Exporters' Profits on Sales of U.S. Wheat to Russia," ID-74-27, Feb. 12, 1974.

APPENDIX XV

PRINCIPAL OFFICIALS RESPONSIBLE FOR ACTIVITIES DISCUSSED IN THIS REPORT

	Appointed
DEPARTMENT OF STATE	
SECRETARY OF STATE: Henry A. Kissinger	Sept. 1973
AMBASSADOR TO INDIA: William B. Saxbe	Feb. 1975
AMBASSADOR TO INDONESIA: David D. Newsom	Feb. 1974
AMBASSADOR TO KENYA: Anthony D. Marshall	Jan. 1974
AMBASSADOR TO PAKISTAN: Henry A. Byroade	Aug. 1969
AMBASSADOR TO PERU: Robert W. Dean	Apr. 1974
AMBASSADOR TO SRI LANKA: Christopher Van Hollen	Oct. 1972
AMBASSADOR TO TANZANIA: W. Beverly Carter, Jr.	July 1972
AMBASSADOR TO URUGUAY: Ernest V. Siracusa	Sept. 1973
AGENCY FOR INTERNATIONAL DEVELOPMENT	
ADMINISTRATOR: Daniel S. Parker	Oct. 1973
DIRECTOR, MISSION TO INDONESIA: Thomas C. Niblock	Aug. 1975
DIRECTOR, MISSION TO KENYA: Charles J. Nelson	June 1974
DIRECTOR, MISSION TO PAKISTAN: Joseph C. Wheeler	Aug. 1973