

David, Cristina C.

**Working Paper**

## Agricultural policy and the WTO Agreement: The Philippine Case

PIDS Discussion Paper Series, No. 1997-13

**Provided in Cooperation with:**

Philippine Institute for Development Studies (PIDS), Philippines

*Suggested Citation:* David, Cristina C. (1997) : Agricultural policy and the WTO Agreement: The Philippine Case, PIDS Discussion Paper Series, No. 1997-13, Philippine Institute for Development Studies (PIDS), Makati City

This Version is available at:

<https://hdl.handle.net/10419/187332>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

## Agricultural Policy and the WTO Agreement: The Philippine Case

*Cristina C. David*

DISCUSSION PAPER SERIES NO. 97-13

The *PIDS Discussion Paper Series* constitutes studies that are preliminary and subject to further revisions. They are being circulated in a limited number of copies only for purposes of soliciting comments and suggestions for further refinements. The studies under the *Series* are unedited and unreviewed.

The views and opinions expressed are those of the author(s) and do not necessarily reflect those of the Institute.

Not for quotation without permission from the author(s) and the Institute.



May 1997

For comments, suggestions or further inquiries please contact:

**The Research Information Staff**, Philippine Institute for Development Studies  
3rd Floor, NEDA sa Makati Building, 106 Amorsolo Street, Legaspi Village, Makati City, Philippines  
Tel Nos: 8924059 and 8935705; Fax No: 8939589; E-mail: [publications@pidsnet.pids.gov.ph](mailto:publications@pidsnet.pids.gov.ph)  
Or visit our website at <http://www.pids.gov.ph>

# Agricultural Policy and the WTO Agreement: The Philippine Case\*

Cristina C. David\*\*

## Introduction

The Philippine economy has only recently begun catching up with the rapid economic progress of East Asian countries, after more than a decade of poor economic performance that witnessed declining per capita income in real terms. Growth rate of gross domestic product averaged only 1% per year in the 1980's. While the economy briefly recovered in the late 1980's under the new Aquino government, economic growth was again stalled by political problems and growth rate of gross domestic product slowed to 0.6% per year between 1991-1993. The current economic recovery since 1994 is now often viewed to be more sustainable and founded on stronger macroeconomic fundamentals (Intal et al., 1996).

Unfortunately, there are no clear signs that the agricultural sector, which continue to account for more than 20% of gross domestic product and over 40% of employment, is on the road to a sustained recovery. After briefly experiencing high growth rate of gross value added in agriculture (3% and above) between 1986 and 1989, the sector has again virtually stagnated increasing only at an average of 1.0% in the 1980's and 1.4% in 1990-1995, way below the population growth rate. Hence, the country's growth rates in GVA and agricultural exports have continued to be the lowest among developing countries in Asia since the 1980s (Table 1). In

---

\*Paper presented at the Conference on Food and Agricultural Policy Challenges for the Asia-Pacific, Hyatt Regency Hotel, October 1-3, 1996.

\*\* Research Fellow, Philippine Institute for Development Studies.

addition, the country's world share of major agricultural exports and self-sufficiency ratio have been declining (Table 2). And in late 1995, sharp increases in the prices of rice, corn, sugar, chicken, and other food commodities fueled inflation, induced minimum wage increases, raised fears about the nation's food security, and threatened macroeconomic stability.

The collapse of world commodity markets in the 1980's and continued low agricultural prices in world markets up to the early 1990s slowed agricultural growth rates in most Asian countries. Table 1 indicates, however, that the drop in growth rates of gross value added in agriculture and agricultural exports in the Philippines have been much more severe and prolonged compared to other developing Asian countries. Differences in the policy and institutional structure governing the agricultural sector would largely explain the differential performance across countries. This paper analyzes the changing nature of price intervention and public expenditure policies affecting agriculture, the implications of the World Trade Organization (WTO) agricultural agreements on these policies, and the political economy factors shaping the nature of agricultural policies.

### Changing Policy Structure

Because of the political sensitivity of food and agricultural prices and certain unique characteristics of agricultural production and markets, the government interventions in the agricultural sector are pervasive. Commodity-specific price and trade policies, as well as economywide policies affecting the exchange rates, directly and indirectly alter the incentive structure faced by producers and consumers with consequent impact on resource allocation and distribution of income. Public budgetary resources are allocated to the sector for administering

market interventions, subsidizing output and input prices, supporting farm incomes, investing in irrigation infrastructure and other support services with public good characteristics, and so forth.

### **Price Intervention Policies**

Past studies have already amply demonstrated that up to the early 1980s, price intervention policies both economywide and commodity-specific, have created an incentive structure that is significantly biased against agriculture (David 1983; Bautista 1987; Intal and Power 1991). Moreover, that bias has been primarily through the overvaluation of the peso due to the industrial protection system and other economywide policies to defend an unsustainable deficit in the balance of payments.

### **Economywide Policies**

Over the past decade, the government has adopted various structural adjustment and stabilization measures to correct fundamental distortions in the economic incentives and imbalances in the external and public sector accounts, including trade policy reforms to remove quantitative trade restrictions and reduce average and dispersion of tariffs, liberalization of the foreign exchange market, and so forth. As a result, the overvaluation of the exchange rate, which was in the order of 25 to 30% from 1960 up to the mid-1980's, dropped down to 20% by 1992 (Table 3). This rate of peso overvaluation remains sizeable imposing a substantial penalty against agricultural profitability particularly on exportable agricultural commodities.

Furthermore, the real effective exchange rates have appreciated significantly in 1988 and 1989 and even more sharply between 1991 and 1995, which would tend to lower relative prices

of tradeable agricultural products in recent years (Fig. 1). This unfavorable trends have been caused by several factors. First, trade liberalization which should reduce distortions in the exchange rate apparently was not accompanied by appropriate nominal exchange rate adjustments and other macroeconomic policies (Medalla et al. 1995). Second, short term foreign capital inflows attracted by high interest rates due to the tight monetary regime accommodated an increase in the current account deficit, causing the real exchange rate to appreciate (de Dios and Associates 1993; Lamberte 1995). And finally, domestic inflation rates were higher than those of trading partners, particularly in 1995 when sharp increases in food prices led to double digit inflation.

### **Commodity-Specific Policies**

A wide variety of policy instruments directly affect agricultural output and input prices. Although import tariffs are generally levied on all agricultural products and inputs, their protective effect is limited as tariff protection is essentially redundant on exportable and non-tradeable commodities. Up until early 1996, non-tariff barriers -- quantitative trade restrictions, import prohibitions, price controls, and government monopoly control in international trade -- have been the dominant commodity-specific policy interventions in agricultural output markets. Tariffs are more commonly applied on inputs and agricultural products which are not locally produced in any significant quantity.

Except in the aftermath of the devaluation in 1970 and the sharp increases in world commodity prices in the mid-1970's, there have been few attempts to intervene in the production and trade of exportable agricultural products. Export taxes from 4% to 6% were imposed on major agricultural exports as a stabilization measure accompanying the floating of the exchange

rate in 1970 and additional export premium duties were temporarily levied to siphon off gains from higher world prices in the mid-1970's. A levy was imposed on coconut, the most important agricultural export. Part of the funds were used to purchase 80% of the coconut oil milling industry which then operated as a monopsonist and together with a copra export ban, these further lowered farm prices of coconut (Clarete and Roumasset 1983).

Government monopoly control over major import-competing food commodities under the National Food Authority (NFA) also expanded beyond rice in the early 1970's, in order to allow tariff free importations of wheat, corn, soybeans, soybean meal, ruminant livestock and beef. Domestic wholesale and international marketing of sugar which was being exported to the US premium market were also nationalized.

By the late 1970's, world commodity prices began to fall. However, the policies and institutions established to cope with high world prices persisted, because these proved to be convenient means of raising revenues but largely to support private interests and bureaucratic inefficiencies. It was not until 1986 with the new government that several of these direct government price and market regulations were dismantled. Export taxes including the copra export ban were abolished. Government monopolistic control over international trade in coconut oil, corn, soybeans, soybean meal, wheat and marketing of sugar were removed. Quantitative trade restrictions on fertilizers were lifted and tariffs on major agricultural inputs were lowered substantially. Government monopoly control over international trade became limited to rice; domestic marketing operations in rice were also reduced as the NFA had to rely mostly on budgetary allocations rather than import profits for financial support.

Despite the stronger overall trade liberalization efforts in the late 1980's, most major importable agricultural commodities with any significant domestic production remain subjected to quantitative trade restrictions (QRs), particularly those protected by laws passed by Congress. In fact, efforts to remove QRs were pre-empted by the passage of the Magna Carta of the Small Farmers (RA 7607) in 1991 which provided, among others, blanket authority for restricting agricultural imports competing with domestic production. It also made the process of implementing quantitative trade restrictions more cumbersome by requiring government consultations with farmers and other affected sectors. When the CB Circular Nos 1348 and 1356 were issued in 1992 liberalizing 220 items, majority of which were agricultural products, this was superseded by MO 95/AO 23 that reimposed quantitative trade restrictions on 53 farm products including sugar, corn, and its substitutes (wheat used for feeds, sorghum), poultry, and pork products on the basis of the Magna Carta of Small Farmers. In addition, the Seed Law (RA 7308) was passed regulating the imports of seeds and planting materials.

Table 4 shows the trends in the nominal protection rates of major agricultural commodities which provide a measure of the impact of commodity-specific policies on agricultural prices. As to be expected, exportable commodities received no price protection, and in the 1970's and into the early 1980's were in fact penalized with NPRs ranging from -4% to -28% in the early 1980's. The changing rates of nominal protection over time reflect to some extent government's attempts to stabilize domestic prices, particularly the low and among major exportable commodities negative NPRs during the 1970s in response to the devaluation and the subsequent boom in world prices. But the continued low or negative rates of protection in the early 1980's, despite the sharp drop in world prices since the late 1970's indicated the practical



difficulties not only of protecting producers of exportable commodities from low world prices but also of doing away with policies that have outlived their original purpose as vested interests are created.

It is clear, however, that there has been an upward trend in the nominal protection rates, particularly among the import competing commodities in recent years. Sugar has been historically the most highly protected initially because of the country's access to the US premium market. Since the late 1980s, domestic prices of sugar have been about equal and sometimes even higher than export prices to the US, or about double the CIF world prices. Corn also now has one of the highest nominal protection rates together with sugar and chicken. NPR for rice is also rising and reached 65% in 1995, reflecting a drastic reversal of rice price policy from the historically pro-urban to pro-farm bias.

#### **Trends in Terms of Trade**

Increases in the nominal protection rates have been, in fact, sufficiently high enough to counter the declining trend in the relative price of agriculture to non-agriculture in the world market and the appreciations in the real effective exchange rates in the 1990s as evidenced by the increasing trend in the domestic terms of trade of agriculture (Fig. 2). Indeed, many major import-competing agricultural products are now characterized by positive net price protection after considering the indirect disprotective effects of the overvaluation of the exchange rate. In the case of corn, sugar, and chicken the net price protection exceeded 50%, even higher than most manufacturing industries. Similarly, the rice sector has become highly protected by 1995. On the other hand, exportable agricultural commodities continue to be penalized, at least by the

20% estimated overvaluation of the exchange rate that may even be higher now due to the steep appreciation of the real exchange rate in recent years.

### **Effective Protection Rates**

Resource allocation is affected by the effective rates of protection which considers not only the policy effects on output prices, but also on intermediate input prices. For agricultural crops, the proportion of cost of intermediate inputs to value of output is still relatively low. However, given the declining trend in nominal protection rates of inputs to agricultural crops reported in Table 5, effective rates of protection would have risen even faster than nominal protection rates. However, in the case of livestock and poultry, effective rates of protection may not have increased as much as NPRs, because the implicit tariff on corn, the most important ingredient in animal feeds, rose at a higher rate.

While the dispersion of protection rates within the agricultural sector has widened, the difference in the estimated average rates of effective rates of protection between agriculture and manufacturing has narrowed (Table 6). During the 1970's and 1980's, various estimates of effective rates of protection of the manufacturing sector show these to be 4 to 10 times higher than agriculture which ranged from 5% to 9% (Tan 1979; Medalla et al. 1995). By the mid-1990's, the average effective rates of protection between agriculture and manufacturing were about equal (Manasan 1996). This has been mainly because of declining protection rates of manufacturing, increasing rates of protection among the major import competing agricultural products, and decreasing share of exportable agricultural commodities. Projected estimates of effective rates of protection, in fact, indicate that the agricultural sector would have higher rates

of effective protection relative to manufacturing given the scheduled reductions in tariff rates up to the year 2000 (Manasan 1996).

### **Public Expenditure Policy**

Because of unique features of agriculture and natural resources that cause market failures, public expenditures for increasing productivity, improving market efficiency, and protecting the environment are required to maintain and enhance the country's competitive advantage in the sector. Public expenditures, however, have also been aimed at improving the unequal distribution of income, landownership, and access to forest, fishery and other natural resources.

Oftentimes, public expenditures for price subsidies, concessional credit programs, and other types of subsidies are justified on the basis of mitigating the penalties imposed on agriculture by other economic policies, particularly price intervention policies. More recently, significant public resources have also been spent on the rehabilitation of natural resources -- forests, coral reefs, mangroves, etc. -- to reverse the rapid deterioration of the ecosystem.

#### **Trends Over Time**

Public expenditures for agriculture and natural resources in real terms quickly recovered in the late 1980s, after bearing the brunt of contractionary policies in the early 1980s (Fig. 3). After reaching a peak around 1990, it began to decline and recovered again in 1995. As a proportion to GVA and total public expenditures net of debt service, public expenditures for the sector between 1987 and 1995 was already moderately high at 6% to 7% and about 10%, respectively. However, Fig. 4 shows much of that recovery in public expenditures were allocated to the strengthening of natural resources and environmental management and

rehabilitation of forest and fishery resources; as well as to rice price stabilization and redistributive purposes, namely the agrarian reform program; and much less on productivity enhancing investments. Irrigation, the single largest item of public expenditures between 1974 and 1984 (close to half of agricultural public spending and 20% of total infrastructure budget) dropped sharply about the mid-1980's, and continued to decline gradually into the 1990s.

### **Allocation By Purpose**

A preliminary disaggregation of public expenditure for agricultural and natural resources between 1987 and 1994 is reported in Table 9. Close to one-fourth of public expenditure has been allocated for natural resource and environment, mostly for forest rehabilitation and protection. Fisheries, accounted for only about 15% of that allocation. Beyond that, public expenditures for agriculture (crops and livestock) have been mostly for redistributive purposes, with little regard for their productivity impact. The agrarian reform program accounted for about one-fourth of total expenditures. Although about half of that was spent on support services, most of the so-called support services are also redistributive in nature i.e., subsidies for credit programs and inputs, cooperative development, etc. The NFA budgetary allocation alone constitutes nearly 10%, and this can easily increase to 12% if the cost of market regulations in other agencies are included.

Only about 30% to 40% of public expenditures for the sector (representing about 3% of GVA of crops and livestock) have been allocated for productivity-enhancing expenditures which the market will fail to provide. Agricultural research or technology generation, in particular, is severely underfunded with public expenditures representing only 0.3% of GVA in contrast to an average of 1% among developing countries and 2-3% among developed countries (Pardey et

al. 1991). Indeed, total public expenditure for technology generation of the Departments of Agriculture, Environment and Natural Resources, and Science and Technology as well as state colleges and universities is only about half the budgetary allocation for NFA.

Public expenditures for agriculture continue to be disproportionately in favor of the rice sector (about half) which presently accounts for less than 15% of gross value added of the sector. Aside from the budgetary allocation for irrigation and price stabilization, rice dominates expenditures for extension, land redistribution, credit programs, and subsidies for seeds, fertilizers, farm machineries, and post-harvest facilities. Yet, the transition problems encountered with the introduction of modern rice technology in the late 1960s and implementation land reform in rice in the mid-1970s that would have justified subsidies for credit and modern inputs have long been over. With respect to production credit for rice, traders, millers, and input dealers have successfully replaced land owners and rural banks as the major sources of credit. In fact, interest rates from these informal sources of production credit are about the same as those charged by cooperatives, the conduit for government-supported credit programs (IAS 1995).

Budgetary allocations for the exportable agricultural subsector have been quite meager in comparison with the 20% implicit tax indirectly imposed by the overvaluation of the exchange rate. An exception is the major effort to address the falling productivity of the coconut industry by financing fertilization and replanting through a foreign funded program. Whereas the distribution of subsidized fertilizer was on schedule, however, very little progress has been made on the replanting program where public support is most needed. Because of uncertainties about

land reform , land owners hesitate to make long-term investments; and prefer to convert land use to non-agricultural purposes thereby avoiding the land reform program.

There has also been very little effort, thus far, to address the problem of declining competitive advantage of major import-competing commodities, particularly corn and sugar through productivity-enhancing public expenditure programs. While irrigation investment may not be socially profitable for these commodities, technology generation in sugar and corn is clearly underfunded. Budgetary allocation for sugar research has been only about 0.5% of its contribution to gross value added, and for corn, it has been minuscule at about 0.1%.

### **Summary**

Overall, the policy environment continues to be a constraint in achieving sustainable growth of the agricultural sector. While price intervention policies have become more favorable to the sector, that has been achieved by increasing protection of major import-competing commodities and reducing implicit tariffs on inputs rather than reducing disincentives on exportable commodities caused by distortions in exchange rates. Thus, improvements in agricultural incentives have occurred at the cost of greater inefficiencies in resource allocation arising from widening distortions in prices within agriculture, and between agriculture and agro-processing. Higher food prices have also had adverse effects on equity because a greater majority of the rural and urban poor are net buyers of the highly protected food commodities.

Moreover, public expenditure allocations have not sufficiently focused on long-term productivity enhancing investments in order to reverse the declining competitive advantage of the sector, as substantial amounts have been allocated to redistributive purposes. The continued use of quantitative trade restrictions have not only limited the generation of tax revenues, but

dissipated scarce government resources on the high cost of administering market regulations, particularly the NFA operations.

### WTO Agreement

The country's membership in the World Trade Organization (WTO) could have set a decisive path towards an efficient price intervention and public expenditure policy framework for Philippine agriculture as well as improve market access and world prices of the country's agricultural exports. The four main elements of the agriculture agreement are aimed at the following:

1. Expanding market access by -

- Replacing non-tariff barriers with tariffs
- Imposing ceilings (or bindings) on all existing tariffs on agricultural products at rates not more than 10 percent of the current tariff rates
- Reducing tariffs by 36 percent over six years among developed countries and 24 percent over 10 years among developing countries
- Allowing a minimum level (access) of imports at a tariff lower than the initial binding tariff rate. This minimum level of imports should be at least 1 percent of production in 1995, rising to 4 percent of production over 10 years.

2. Reducing production and trade-distorting domestic support for agriculture to at most 10 percent of the gross value of agricultural production. For developed countries, such domestic support should decrease by 20 percent over six years, and for developing countries by 13 percent over 10 years. Public expenditures for agricultural research, extension, irrigation, market infrastructure, and other productivity-enhancing and environment protection investments are not covered; neither are income support programs to farmers that do not affect the levels of production and trade.

3. Reducing the average quantity of subsidized exports and the value of export subsidies. Developed countries must reduce quantities of subsidized exports by 21 percent and the value of export subsidies by 36 percent over six years. Developing countries must lower quantities of subsidized exports by 14 percent and the value of export subsidies by 24 percent over 10 years.

4. Removing the anti-trade bias of sanitary and phytosanitary measures by harmonizing those measures according to international standards, guidelines, or recommendations. Stricter regulations may be allowed based only on scientific justifications.

In the Philippine case, only the provisions on market access expansion and harmonization of phytosanitary measures apply. There are no subsidies on agricultural exports, and production and trade distorting public expenditures are much less than the allowable 10% of gross value added of agriculture.

#### **Implementation of Market Access Provision**

The abolition of quantitative trade restrictions (QRs) and replacement by tariffs may be expected to increase transparency of the price impact of trade interventions, raise government revenues, decrease budgetary cost of QR administration, and minimize rent seeking and bureaucratic corruption. Furthermore, reductions in tariff rates would reduce distortions in price incentives within agriculture and the overall economy; and together with appropriate exchange rate policies, the overvaluation of the peso may also be expected to decline. Finally, with the stronger pressure to increase the sector's global competitiveness and greater potential availability of public resources, the level as well as the efficiency in use of public expenditures for productivity-enhancing investments such as agricultural research, irrigation and market infrastructure, etc. may be increased.



Unfortunately, the specific agreement itself and the manner of implementation thus far, suggest that virtually none of these potential benefits will be forthcoming unless drastic redirection of government policies is achieved.

First of all, the rice sector, one of the most heavily regulated commodity has been exempted from tariffication for the next 10 years similar to the case of Japan and South Korea, on the basis of the politically sensitive nature of rice as a food staple.

Second, while the quantitative trade restrictions were lifted by April 1996, these were replaced by applied tariffs that are mostly equal to the high binding tariffs (EO 313), the maximum tariffs committed under the WTO. As Table 7 indicates, those binding tariffs of mostly 100% are typically higher than the nominal protection rates received under the regime of quantitative trade restrictions, and definitely higher than book tariff rates under the earlier EO 470 which programmed the unilateral tariff reductions of a wide range of agricultural and industrial goods. Moreover, tariffs on a number of imported agricultural products considered close substitutes for commodities where QRs are to be lifted (e.g., feed wheat and barley as substitutes for corn) were raised. Although the applied tariffs are scheduled to decrease over the next 10 years for these commodities as shown in Table 8, they will be only about equal to or higher than tariffs rates in 1995 under EO 470 and definitely much higher than the 5% target average tariff at the end of that period.

Third, the administration of the minimum access volume (MAV) provision of the Agreement has inevitably resulted in rent-seeking, inequities, high bureaucratic costs, and inefficiencies in allocating government revenues generated from importations. With the MAV provision, a tariff quota system has been established where a certain quantity of a number of

agricultural commodities may be imported at a relatively low (in-quota) tariff rate, and others will have to pay the higher applied (out-quota) tariff rate. Because most of the MAV volume are much lower than import demand at the in-quota tariff, large quota rents are created unless the right to import the MAV volume is auctioned and granted on the basis of the highest bid. The few exceptions are the high MAVs for live animals, which the Department of Agriculture claims were merely clerical errors and now are being negotiated for technical correction.

Although the WTO agriculture agreement should have been in effect as of January 1, 1995, there were long delays in abolishing the various laws which instituted the quantitative trade restrictions. These laws were finally abolished in April 1996 and the applied tariffs (EO 313) announced subsequently. It was not until July 1, 1996, however, that the official guidelines for the administration of the MAV was officially approved under Administration Order No. 9. In the meantime, a number of developments occurred that shaped the nature of the implementation procedure.

In 1995, imports of corn and sugar under the MAV provision were made by government corporations that have tax-free privileges, namely NASUFRECO for sugar and NFA for corn. This procedure allowed the margins between selling and import price to be under the control of the corporation and the agency to which it is attached, i.e., Sugar Regulatory Administration and the Department of Agriculture, rather than to the general treasury. In the case of corn, the right to purchase the NFA imported corn (paid for in advance) was bidded out to feed-livestock-poultry producers, but allocation was based not only on the bid price but other conditions, such as previous size of corn consumption, etc. When domestic corn prices increased sharply later

in the year, so did quota rents, creating widespread discontent as small and medium livestock producers lost out to large feed-livestock producers with access to the MAV.

The sharp increases in prices of rice, corn, sugar, and other food commodities in late 1995 due to inadequate imports have convinced policymakers, farmers groups, and other interested parties that high tariffs may not always serve the objective of food security. However, the policy response in early 1996 was to increase the volume of imports under the MAV or in-quota tariffs and do away with the bidding procedure, rather than to lower the high applied tariffs and have a market-based system of import allocation.

Indeed, the newly released official implementing guideline of the MAV tend to be counter to the spirit of tariffication and institutionalizes rent-seeking with its following features:

a) access to imports under MAV will not be bidded out, hence quota rents (difference between in-quota tariff and implicit tariff) will accrue to those granted access; access will be based on historical market shares in the initial year, and then through some more complicated procedure that is aimed at achieving a measure of equitable access to producers, processors, food services, traders, associations of producer and users, etc;

b) whenever there is a perceived shortage, i.e., projected price is more than border price by a rate equal to the average of the applied or out-quota and in-quota tariff, the MAV will be correspondingly increased. And the increase will need the approval of Congress through the Senate President and Speaker of the House;

c) the NFA will act as an MAV Import Consolidator of corn, i.e., it will undertake the importation of corn, although strictly speaking those granted MAV allocation are not obliged to avail of NFA services. Of course, the NFA is under the DA which leads the MAV management

committee that approves the import allocations, and thus there could be indirect pressure to import through the NFA; and

d) for a period of 9 years, all the revenues derived (in-quota tariff duties) for the MAV importations are earmarked by Congress for irrigation, farm to market road, post-harvest equipment and facilities, credit, research and development, other marketing infrastructures, provision of market information, retraining extension services, and other forms of assistance and support to the agricultural. But among the principles of disbursements is a requirement that the proponents of the projects/programs to be supported by this fund should come from the private sector including agricultural and agri-business groups representing the producers of commodities where QRs have been lifted and the products of which are covered by the MAV mechanism.

### **Effects**

Under the current WTO agreement, the Philippine agriculture's drift towards increasing protection has not been prevented because of the high binding tariffs and the exemption of rice, the single most important agricultural commodity, from coverage. In fact, the increases in the tariff protection of hogs, poultry, and meat products to compensate for the high nominal protection of corn have been facilitated. Of course, tariff ceilings, albeit high, have now been set to limit increases in price protection.

The implementation guidelines of the MAV ensure that quantitative trade restrictions continue to be in effect, despite tariffication; extends the role of government parastatals; promotes rent-seeking; fragments the budgetary process; and causes inefficiencies in public expenditure allocation. In any case, the GATT-URs failure to provide some control over

government parastatal involvement in agricultural trade, often as a monopolist, also allows WTO member countries to counter the spirit of the agricultural agreement on market access.

Recent analyses of the Agriculture Agreement now indicate that any expansion of market access in other countries and improvement in world prices will be very limited because of widespread dirty tariffication, concentration of tariff reductions on commodities where tariffs were already low, unusually high tariff equivalent due to low world prices in base year, exemption of rice from coverage in a few countries, and continued monopoly power of government parastatals (Hathaway and Ingco 1995; Winters 1995).

The current rules on reduction in aggregate measures of support and export subsidies will also have limited impact on world prices for at least two reasons: rules apply to the aggregate and not to individual commodities allowing some major traded products to maintain high domestic support and export subsidies, and unilateral reductions adopted after the base year of 1986-88 already form the major part, if not all, of the obligations under the Agreement.

### **Political Economy Factors**

The increasing trend in agricultural protection in the Philippines should not be surprising. In general, countries switch from taxing to subsidizing the agricultural sector in the course of economic development; and thus, developed countries tend to overvalue agricultural products while developing countries tend to underprice their agricultural commodities (Bale and Lutz 1981; Johnson 1991; Bautista and Valdez 1993). This phenomenon has been explained in terms of political economy factors (Anderson and Hayami, et al. 1986; Lindert 1991). As economies develop, comparative advantage in agriculture tends to decline and the share of agriculture in

gross domestic product and total employment, as well as the absolute number of labor force in agriculture also decrease. Demand for agricultural protection increases and with the small number of farm households, the ability to lobby for greater protection also improves. On the other hand, with the smaller share of food in household budgets at higher income levels, resistance to higher food prices has diminished.

It should be emphasized, however, that in the Philippine case, the switchover from taxing to assisting agriculture directly through price interventions has occurred at a much lower level of economic development. In a country which would be self-sufficient in food in a world of free agricultural trade, that switchover would occur when its per capita income reaches 2.6 times the global average (Tyers and Anderson 1992; Anderson 1994). For a country that would be only 65 percent self-sufficient in food under free trade, the switchover would occur when its per capita income reached the global average (\$4300 in 1992). In 1995, per capita income in the Philippines was only in the order of \$1,000. Clearly, the country can ill afford the cost of inefficiencies incurred with a highly distorted incentive structure.

Why have the very high rates of price protection become possible in selected agricultural commodities in the Philippines contrary to the pattern of low agricultural protection in developing countries. The high nominal protection of rice in 1995 may be a very short-term phenomenon, resulting mainly from a miscalculation of import requirements as the government imported rice at a record level to reduce rice prices in 1996 (David 1996). However, the high rates of protection for corn, sugar, and chicken have persisted for a much longer period.

Although corn is produced by a large number of small farms, their political clout has been strengthened by farmers' organizations and the entry of corn seed companies in the corn

market. On the other hand, there is little resistance against high corn prices from direct consumers of corn as food because these are mostly corn producers themselves. The livestock and poultry producers who now use at least two-thirds of total corn production have chosen to lobby more for greater output protection in return for the high corn prices rather than for a more rational corn-livestock policy. Objections to the highly restrictive corn import policy have been addressed by providing import allocations to the large, more organized, and vocal sector of the feed, poultry, and hog industry. Prior to 1995, those able to obtain import allocations paid only a 20% book tariff rate as against 60% to 70% nominal protection rate; and after 1995, a 35% in-quota tariff compared to a 100% out-quota tariffs. Under the new tariff policy in compliance with WTO, out-quota tariffs of both corn, hog, and poultry are all 100% which confer a higher effective rate of protection than previously. Furthermore, the MAV implementation will provide the large and medium scale feed-livestock-poultry producers a cost advantage over the small producers who have to fully rely on the domestic market for their corn supplies.

In the case of sugar, the producers and millers have historically had strong political power in part because of their close relationship and common interest with the government in lobbying for protecting the country's share in the US sugar premium market and the fact that the sugar sector in contrast to rice or corn, is composed of relatively larger farms and large sugar mills. By the nature of sugar sharing arrangement, the sugar producers and millers share proportionately from any increase in output price. In contrast, the share of sugar in household expenditure is very small and therefore consumers have generally tolerated the high sugar prices. Because of the relatively high tariff protection on the food processing industry in the earlier years, there was relatively little resistance from the food processors, during that period.

However, as the level of price protection of food processing industries declines with the unilateral trade liberalization and AFTA commitments, and the emergence of new food products with export potential such as preserved fruits, resistance against the artificially high sugar prices have increased. This growing resistance have been mitigated mainly by providing some import allocations to selected, vocal food processors and sometimes even by extra ordinary pressures. For example, when a soft drink company legally imported sugar and paid the relatively low book tariff rate, sugar producers mobilized the population of sugar producing regions to boycott the company.

### Concluding Remarks

The wide distortions of prices within agriculture is particularly detrimental not only to the growth and employment objective of the whole economy, but of the agricultural sector itself. Because land is a major input in agricultural production and its supply essentially fixed, artificially raising profitability of rice, corn, and sugar increases the cost of land for other crops. Consequently, competitive advantage of exportable agricultural commodities in the world market is reduced indirectly. Corn is the single most important input into the hog and poultry industries, where potentials for growth and whose contributions to gross value added in agriculture and labor and land productivities are even higher than corn. The high corn price policy has hindered the international competitiveness of the hog industry (still consisting mostly of small, backyard producers), as studies have already showed the country's comparative advantage in hog production (Gonzales and Perez 1991).



The very high protection of sugar hurts not only the consuming household, but also the food processing industry, which accounts for 40% and 20% of manufacturing value added and employment, respectively. In contrast to sugar which is clearly import-competing and for which domestic consumers have to pay about twice as much as world price, the food processing industries heavily using sugar as an input has greater export potential. At least 25% of domestic production of processed vegetables, fruits, chocolate, and sugar confectioneries are already exported.

The excessively high protection of a number of food commodities have had adverse effects on equity because a greater majority of the rural and urban poor are net buyers of the highly protected food commodities. High food prices also put pressure on wages as evidenced by the clamor for increasing minimum wages resulting from the food price-induced inflation in recent years, making labor intensive manufacturing industries less competitive in relation to the low wage-cheap food economies such as Vietnam and China.

The inefficiencies caused by price intervention policies are not only through the distortions in incentives but through the choice of policy instruments. Continued use of quantitative trade restrictions rather than tariffs promotes rent-seeking, reduces government revenues, incurs significant bureaucratic cost, and introduce price uncertainties. And recent policy changes in response to the WTO agreement seems to have exacerbated, rather than mitigated such problems.

Yet at least three major reasons are often raised to justify continuing agricultural trade protection and use of quantitative trade restrictions, i.e., the instability of world market prices, unfair competition posed by the high agricultural subsidies in developed countries, and the need to alleviate the adjustment cost borne by the farm sector in the course of structural changes

accompanying rapid economic development. While the first two concerns could be addressed most effectively through multilateral trade liberalization and domestic subsidy reform, the question of minimizing and equitably distributing the cost of structural adjustments is mostly a domestic policy issue.

Upon ratifying the GATT-UR agreement in the end of 1994, Congress approved the establishment of a competitive enhancement fund (CEF) for agriculture and in 1996 also earmarked the tax revenues from imports under the minimum access volume for the same purpose. It should be pointed out, however, that the CEF does not appear to provide additional funds, but consists rather of realignments; and any additional funds were allocated to short-term projects rather than to medium and long-term projects and programs and institutional reforms that are necessary to effect sustainable increases in productivity. The priority accorded to commodities in which QRs are to be lifted, rather to investments that would have the highest economic pay-off also lowers effectiveness of such adjustment measures. Neither is this priority justified on equity grounds. After all, agricultural protection on these commodities has not substantially declined. The current efforts of the Commission on Agricultural Modernization to develop a long-term strategy for enhancing competitive advantage in a more liberal trading environment will hopefully set an appropriate direction for public support programs in agriculture.

It should be emphasized that the adjustment cost of structural changes in agriculture may be more effectively addressed by focusing on the factor, instead of output markets. Increased expenditures for education, health and market infrastructure in affected areas should definitely be the main policy tools for such adjustment process.

## References

- Anderson, Kym, Hayami, Y. and others. 1986. The Political Economy of Agricultural Protection: East Asia in International Perspective, Allan and Unwin: Sydney.
- Anderson, Kym. 1994. "Food Price Policy in East Asia," Asian-Pacific Economic Literature, Vol. 8 (2) p. 15-30.
- Bale, Malcolm and E. Lutz. 1981. "Distortions in Agriculture and their Effects: An International Comparison," American Journal of Agricultural Economics, Vol. 63, No. 1 pp. 8-22.
- Bautista, Romeo. 1987. "Production Incentives in Philippine Agriculture: Effects of Trade and Exchange Rate Policies." Research Report No 59, Washington: International Food Policy Research Institute.
- Bautista, Romeo and A. Valdes (eds.). 1993. The Bias Against Agriculture: Trade and Macroeconomic Policies in Developing Countries, ICS Press, San Francisco.
- Clarete, Ramon and J. A. Roumasset. 1983. "An Analysis of the Economic Policies Affecting the Philippine Coconut Industry," Working Paper No. 83-08, Makati: Philippine Institute for Development Studies.
- David, Cristina C. 1983. "Economic Policies and Agricultural Incentives," Philippine Economic Journal, Vol. 11.
- David, Cristina C. 1996. "Food Policy: Its Role in Price Stability and Food Security." Paper presented at the Annual Conference of the Philippine Economic Society, Makati City.
- De Dios, Emmanuel S. and Associates. 1993. "Poverty, Growth and the Fiscal Crisis", Philippine Institute for Development Studies and International Development Research Center, Makati City.
- Gonzales, Leonardo and N. D. Perez. 1991. "The Economics of Hog and Poultry Production" in M. W. Rosegrant and L. A. Gonzales. The Corn-Livestock Sector: Performance and Policy Implications, IFPRI and Philippine Department of Agriculture.
- Hathaway, Dale and M. Ingco. 1995. "Agricultural Liberalization and the Uruguay Round" in The Uruguay Round and the Developing Economics, WB Discussion Paper Number 307, ed. by W. Martin and L. Alan Winter.
- Institute of Agrarian Studies. 1995. "Agrarian Reform Beneficiaries Performance Monitoring and Evaluation System."- University of the Philippines at Los Baños.

- Intal, Ponciano; M. Lamberte; C. David; M. Austria; C. Cororaton; E. Medalla; and V. Pineda. 1996. "The Emerging World Trading Environment and Developing Asia: The Case of the Philippines." Asian Development Bank.
- Intal, P.S. and J.N. Power. 1991. "The Philippine", in Krueger, A. O., et al. (eds.). The Political Economy of Agricultural Pricing Policy. Baltimore and London: The Johns Hopkins University Press.
- Johson, D. Gale. 1991. World Agriculture in Disarray (2nd ed.), St. Martins Press, New York.
- Lamberte, Mario. 1995. "Managing Surges in Capital Inflows: The Philippine Case," Journal of Philippine Development, Vol. 22, No. 1, Makati: Philippine Institute for Development Studies.
- Lindert, Peter H. 1991. "Historical Patterns of Agricultural Policy" in Timmer, C.P. (ed.) Agriculture and the State: Growth, Employment, and Poverty in Developing Countries, Ithaca and London: Cornell University Press.
- Medalla, Erlinda, et al. 1995. "Philippine Trade and Industrial Policies: Catching Up with Asias Tigers," Philippine Institute for Development Studies, Makati City.
- Pardey, P.G., J. Roseboom, and J.R. Anderson. 1991. "Regional Perspectives on National Agricultural Research" in P.G. Pardey, J. Roseboom, and J.R. Anderson (ed.). Agricultural Research Policy: International Quantitative Perspective, Cambridge University Press.
- Tan, Norma. 1979. "The Structure of Resource Flows in the Philippine." in R. H. Bautista and J. H. Power, ed., Industrial Promotion Policies in the Philippines, Makati: The Philippine Institute for Development Studies.
- Tyers, Rodney and K. Anderson. 1992. Disarray in World Food Markets: A Quantitative Assessment, Cambridge University Press.
- Winters, L. Alan. 1995. "Implications of the Uruguay Round Agreements: Critical Issues and Adjustment Requirements." in Implications of the Uruguay Round Agreements for the Asian and Pacific Region. United Nations, New York.

Table 1. Average growth rates of agriculture gross value added, and agricultural exports in selected South and Southeast Asia countries (%).

	1970-80		1980-90		1990-94	
	Agricultural gross value added	Agriculture export	Agricultural gross value added	Agriculture export	Agricultural gross value added	Agriculture export <sup>d</sup>
Philippines	4.9	14.6	1.0	-4.6	1.4 <sup>b</sup>	3.2
Indonesia	2.0	20.0	4.9	4.7	4.3	6.8
Malaysia	6.5	19.3	3.8	3.1	2.4	2.4
Thailand	4.2 <sup>a</sup>	21.2	3.9	4.9	2.4	3.6
India	1.8	14.6	3.2	0.8	2.4	2.8
Pakistan	3.0	13.8	4.3 <sup>c</sup>	3.2	3.5	-5.4
Nepal	0.8	-2.9	2.7	0.7	0.4	8.4
Bangladesh	1.4	2.6	1.9	-1.5	2.6	-2.9
Sri Lanka	1.8	9.7	2.1 <sup>c</sup>	0.03	2.1 <sup>c</sup>	-8.1

<sup>a</sup> Refers to 1972-80.

<sup>b</sup> Refers to 1990-95.

<sup>c</sup> Refers to 1981-90.

<sup>d</sup> Refers to 1990-93.

<sup>e</sup> Refers to 1990-93.

Source of basic data: ADB Key Indicators, various issues.  
FAO SOFA 1995.

Table 2. Selected indicators of Philippine agricultural trade performance (%).

In relation to	1960	1965	1970	1975	1980	1985	1990	1993
<b>Philippine trade</b>								
Sector share in exports	64	63	44	54	35	26	15	13
Sector share in imports	19	21	14	10	8	9	10	9
Ratio of sector imports to exports	31	36	34	26	31	46	96	101
<b>World trade</b>								
Coconut products	40	57	51	59	64	52	53	52
Sugar	11	7	8	6	4	2	1	1
Bananas	0	0	0	8	9	8	6	7
Pineapple	-	-	-	-	20	17	14	14
Fishery	-	-	-	-	1	1	1	1
Forestry	-	-	-	1	1	1	-	-

Source: Philippine Foreign Trade Statistics  
FAO SOFA 1995.

Table 3. Selected estimates of the degree of real exchange rate overvaluation, Philippines (%).

	Intal & Power <sup>a</sup>	Medalla & Associates <sup>b</sup>
1960-61	24	
1962-66	19	
1967-69	23	
1962-69		45
1970-74	20	12
1975-79	27	
1975-80		30
1980-82	28	
1989		26
1992		21

<sup>a</sup> Intal, Ponciano, and J. H. Power (1991). "The Philippines" in A. Krueger et al., Political Economy of Agricultural Pricing Policy, Baltin and London: The Johns Hopkins University Press.

<sup>b</sup> Medalla, Erlinda, M. (1995). Philippine Trade and Industrial Policies: Catching Up with Asia's Tigers, Philippine Institute for Development Studies, Makati City.

Table 4. Trends in nominal protection rates of major agricultural commodities, 1970-1995 (%).<sup>a</sup>

	1970-79	1980-84	1985-89	1990-94	1995
Rice	-4	-13	16	19	65
Corn	24	26	67	76	150
Sugar <sup>b</sup>	5	42	154	81	104
Coconut products					
Copra	-17	-28	-6	0	0
Coconut oil	-4	-4	7	18	10
Desiccated coconut and copra cake and meal	-4	-4	0	0	0
Bananas, pineapple, tobacco, abaca	-4	-4	0	0	0
Pork	6	-9	43	31	44
Chicken	34	46	39	74	84

<sup>a</sup> NPR is the percentage difference between domestic wholesale price and border price converted by the official exchange rate. The border price is an FOB export unit value for exportable products and the world price adjusted by 15% as a measure of CIF import unit value for importable products. In the case of pork and chicken, the import unit value of Singapore was used.

<sup>b</sup> Weighed average of NPR on sugar exported to the US (ratio of export unit value to the US to the border) price and NPR on sugar for domestic use (ratio of domestic wholesale price to border price). Border price is the FOB world price of sugar adjusted by 15% to obtain the CIF price.



Table 5. Trends in implicit tariffs on agricultural inputs, Philippines, 1970-1995 (%).

	Fertilizer <sup>a</sup>		Pesticide <sup>b</sup>	Tractors <sup>b</sup>		Threshers <sup>bc</sup>	Water pumps
	Urea	Ammophos		2 wheel	4 wheel		
1970-74	-13	-9	29	21	21	24	46
1975-79	28	54	35	46	24	24	46
1980-84	21	19	35	46	24	24	46
1985-89	11	15	20	30	10	30	30
1990-94	5	12	16	28	10	22	24
1995	5	na	3(10) <sup>d</sup>	10	10	20	10

<sup>a</sup> Based on price comparisons, i.e., percentage difference between ex-warehouse price and CIF import unit value.

<sup>b</sup> Based on book rates. Implicit tariff from 1960-84 includes the import tariff and advance sales tax (10% and 25% mark-up). The advance sales tax was abolished in 1986 and hence the implicit tariff from 1985 onwards include only the tariff rate.

<sup>c</sup> Includes also other farm implements produced domestically.

<sup>d</sup> Figure in parenthesis (10%) refer to insecticides and the 3% refer to herbicide, fungicides and other agricultural chemicals.

Table 6. Estimated effective protection rates by major sectors (%).

	Agriculture, fishery, and Forestry	Manufacturing	All Sectors
Tan			
1974	9.0	44.0	36.0
Medalla et al.			
1983	10.3	79.2	52.8
1985	9.2	74.1	49.3
1986	5.0	61.2	39.8
1988	5.2	55.5	36.3
Manasan (preliminary)			
1993-95	24.4 (28.1)	29.1	26.7
2000	19.1 (25.9)	19.2	18.4

Source: Tan, Norma A. 1979. "The Structure of Protection and Resource Flows in the Philippines," in Bautista, R. M., et al. Industrial Promotion Policies in the Philippines, Philippine Institute for Development Studies, Makati.

Medalla, Erlinda, et al. 1995. Catching Up With Asia's Tigers. Philippine Institute for Development Studies, Makati.

Manasan, Rosario G. (forthcoming). Assessment of Tariff Reform in the 1990s.

Note: Figures in parenthesis refer to crops and livestock only.

Table 7. Nominal protection rates, current book tariff rate, and GATT binding tariff and minimum access requirements for 1995 and 2005.

	NPR 1990-1994	EO 470 1995 ----- (%)	Binding tariff		Tariff %	Minimum access	
			1995	2005		Quantity (000 mt)	
						1995	2004
Rice	19	50	na	na	50	59.73	238.94
Corn	76	20	100	50	35	130.16	216.94
Sugar	80	50	100	50	50	38.43	103.40
Coffee		50			50	.06	.06
Garlic		30	100	40			
Onions		30	100	40	30	1.61	2.68
Potatoes		30	100	40	50	930	1550
Cabbage		30	100	40	30	2.10	3.51
Pork	31	30	100	60	30	32.52	54.21
Poultry meat	74	50	100		50	14.09	23.49
Beef		30			30	4.00	5.57
						<u>000 heads</u>	
Live hogs					30	2570.00	2570.00
Live poultry					40	5708.12	9513.54
Cattle					30	12.20	20.34

Table 8. Summary schedule of out-quota tariffs of agricultural commodities under EO 313 (figures in parenthesis are in-quota tariffs) in percent.

	April 1996	July				
		1996	1997	1998	1999	2000
*Corn (whole grains)	100 (35)	100 (35)	80 (35)	80 (35)	65 (35)	65 (35)
Corn (worked grains, i.e., hulled, rolled flaked, pearled, slice, etc.)	100	100	80	80	60	60
Sorghum	60	60	50	50	45	45
Rye, Barley, Oats	40	40	35	35	35	35
Buckwheat, millet and other cereals; groats and meal of corn, wheat, other cereals; worked grains (barley, oats, others); other preparations of a kind used in animal feeding	50	50	45	45	45	45
Oat & rice groats and meal	50	45	45	45	45	45
Corn bran, sharps and other residues; corn oil cake and other solid residues	30	30	25	25	25	25
*Sugar (raw cane or beet sugar not containing flavouring or coloring matter); other sugar	100 (50)	100 (50)	80 (50)	80 (50)	65 (50)	65 (50)
*Sugar (containing added flavouring or coloring matter)	70 (50)	70 (50)	60 (50)	60 (50)	55 (50)	55 (50)
*Coffee (all kinds)	100 (50)	100 (50)	80 (45)	80 (45)	60 (45)	60 (45)
*Extracts, essence and concentrates of coffee, tea or mate and preparations thereof	100 (30)	100 (30)	80 (30)	80 (30)	65 (30)	65 (30)

Table 8. (cont'd)

	April	July				
	1996	1996	1997	1998	1999	2000
*Potatoes, fresh or chilled	100 (50)	100 (50)	80 (45)	80 (45)	60 (45)	60 (45)
*Onions, shallots, garlic, leeks and other alliceous vegetables fresh or chilled; cabbages, cauliflowers and other similar edible brassicas, fresh or chilled	100 (30)	100 (30)	80 (30)	80 (30)	60 (30)	60 (30)
Manioc (cassava); sweet potatoes	50	50	45	45	45	45
*Live bovine animals; live swine of more than 50 kg	40 (30)	40 (30)	40 (30)	40 (30)	35 (30)	35 (30)
*Live swine; (less than 50 kg); live sheep and goats	60 (30)	60 (30)	50 (30)	50 (30)	45 (30)	45 (30)
*Live poultry	80 (40)	80 (40)	65 (40)	65 (40)	50 (40)	50 (40)
*Meat of bovine animals; meat of sheep or goats (all)	60 (30)	60 (30)	50 (30)	50 (30)	45 (30)	45 (30)
*Meat of swine (all)	100 (30)	100 (30)	80 (30)	80 (30)	60 (30)	60 (30)
*Meat of poultry (all, except  meat of turkey ("other")  meat of geese or guinea fowls	100 (50)	100 (50)	80 (45)	80 (45)	60 (45)	60 (45)
meat of geese or guinea fowls	50 (30)	50 (30)	45 (30)	45 (30)	45 (30)	45 (30)
meat of geese or guinea fowls	60 (30)	60 (30)	50 (30)	50 (30)	45 (30)	45 (30)
*Offals of ducks, geese, a guinea fowls except liver	80 (50)	80 (50)	65 (45)	65 (45)	50 (45)	50 (45)
*Processed meat (all types)	100 (30)	100 (30)	80 (30)	80 (30)	65 (30)	65 (30)

\* Items where quantitative trade restrictions were lifted.

Source: Executive Order No. 313

Table 9. Distribution of public expenditures for agriculture and natural resources by policy instruments, 1987-1994 (₱ million).

	1987	1988	1989	1990	1991	1992	1993	1994	Total
Agrarian Reform	658 (8)	1,706 (18)	4,331 (30)	4,842 (28)	5,588 (30)	5,719 (29)	4,753 (26)	5,179 (24)	32,775 (26)
Land Acq'n Dist'n	570	944	1,853	1,983	2,373	2,571	2,637	3,272	16,204
Support Services	87	762	2,478	2,859	3,215	3,147	2,116	1,907	16,571
Natural Resources and Environment	1,587 (20)	1,994 (21)	3,267 (22)	3,943 (23)	4,472 (24)	4,721 (24)	3,813 (21)	4,805 (23)	28,602 (23)
Fishery	180	200	210	225	437	1,614	677	697	4,240
Forestry/others	1,407	1,794	3,057	3,718	4,035	3,107	3,135	4,108	24,362
Agriculture	6,130 (72)	6,308 (61)	7,136 (52)	8,766 (49)	11,476 (46)	9,385 (47)	9,708 (53)	11,575 (53)	67,675 (51)
Irrigation (NIA)	1,613 (20)	2,117 (22)	1,872 (13)	2,621 (15)	2,232 (12)	1,494 (8)	1,946 (11)	1,704 (8)	15,600 (12)
Price stabilization (NFA)	1,169 (14)	1,050 (11)	1,320 (9)	929 (5)	996 (5)	1,532 (8)	1,985 (11)	2,765 (13)	11,746 (9)
Research	337 (4)	344 (4)	510 (4)	663 (4)	685 (4)	731 (4)	819 (5)	985 (5)	5,074 (4)
Extension	709 (9)	829 (9)	900 (6)	1,126 (6)	1,145 (6)	1,289 (7)	1,484 (8)	2,014 (9)	9,497 (7)
Coconut development	3 -	2 -	184 (1)	77 -	452 (2)	566 (3)	429 (2)	368 (2)	2,082 (2)
Livestock	167 (2)	94 (1)	136 (1)	187 (1)	173 (1)	237 (1)	366 (2)	467 (2)	1,826 (1)
Others	2,132 (26)	1,872 (19)	2,214 (15)	3,163 (18)	2,983 (16)	3,536 (18)	2,679 (15)	3,272 (15)	21,850 (17)
Total	8,375	10,008	14,734	17,551	21,536	19,825	18,274	21,559	129,052

Note: Figures in parenthesis are percentage shares in total public expenditures and Government Appropriations Act.

Sources of basic data: Budget of Expenditures and Sources of Financing, Department of Budget and Management; National Irrigation Administration; Department of Agriculture; Department of Agrarian Reform; University of the Philippine at Los Baños.

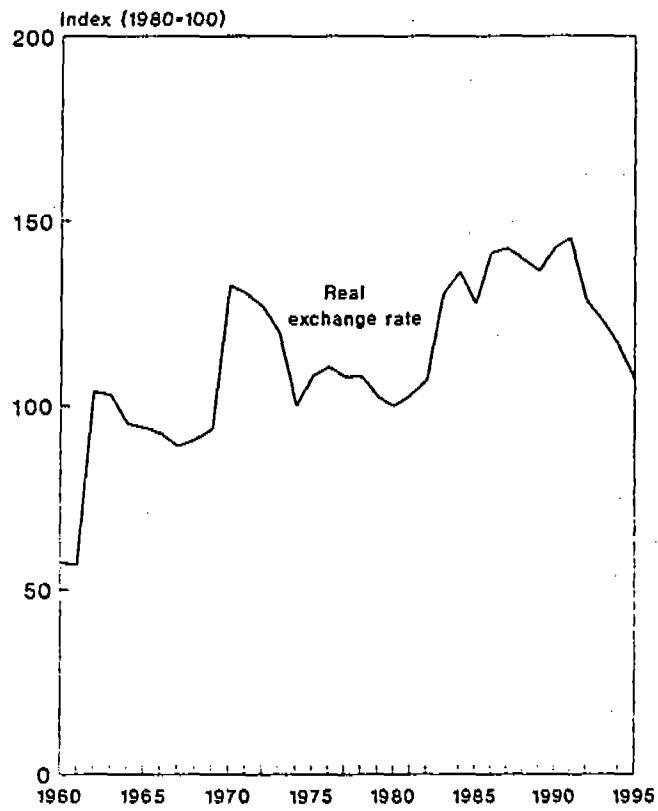


Fig.1. Trends in the real exchange rate, 1960-1995.

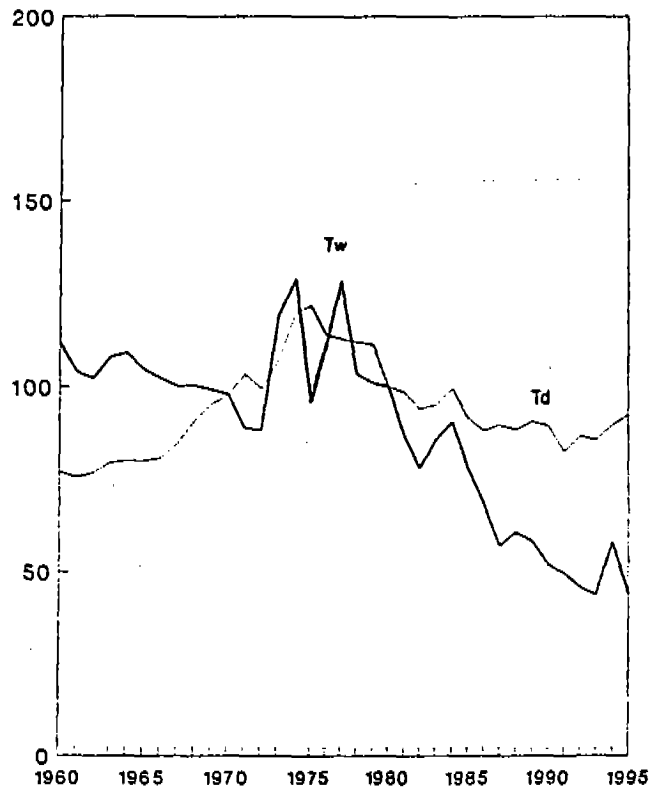


Fig.2. Trends in the real world (Tw) and domestic (Td) agriculture/non-agriculture terms of trade, 1960-1995.



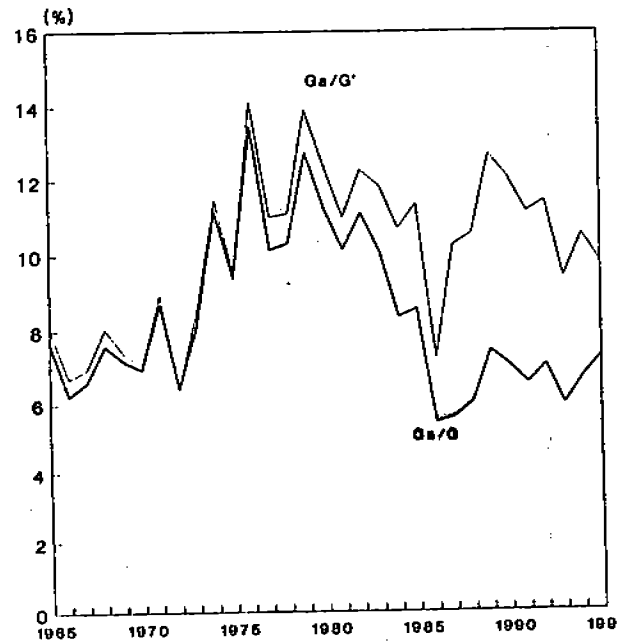
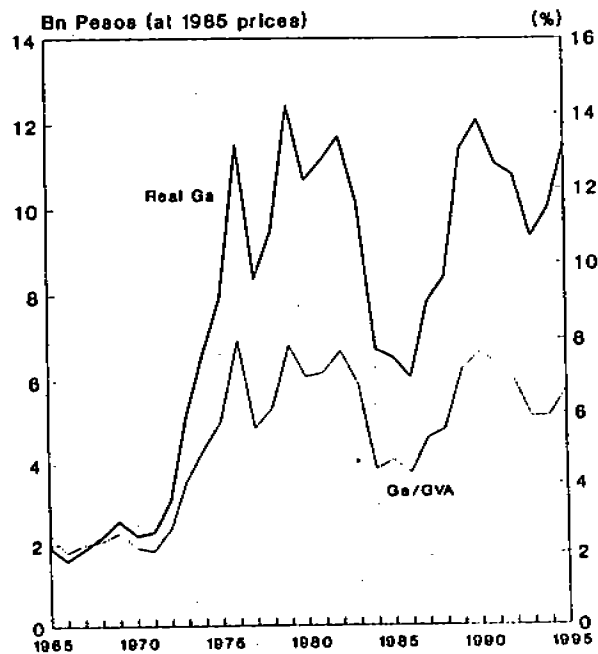


Fig.3. Trends in real government expenditures in agriculture ( $G_a$ ), its ratio to gross value added in agriculture (GVA), total government expenditures ( $G$ ), and  $G$  less debt service ( $G'$ ).

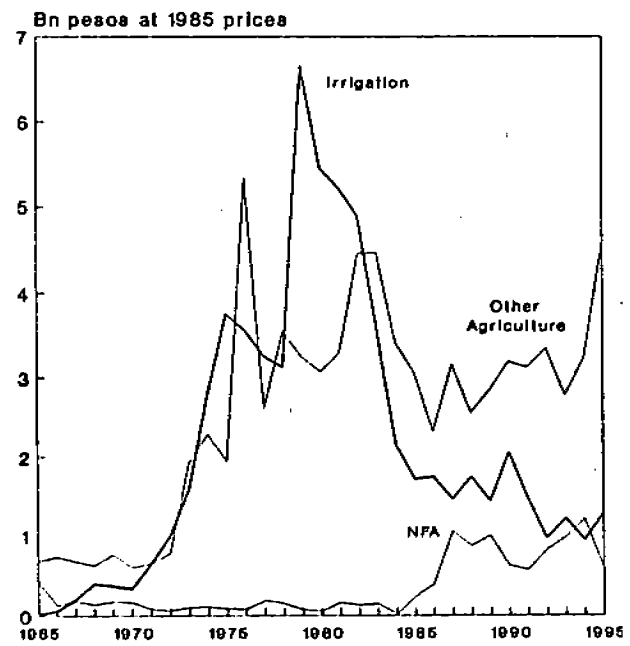
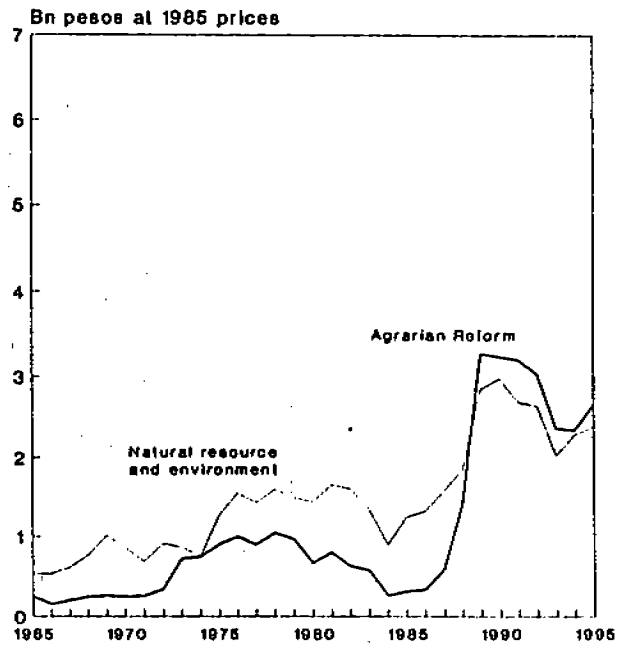


Fig.4. Trends in real government expenditures in agriculture by policy instrument.