

# Institute of Social Studies

### GRADUATE SCHOOL OF DEVELOPMENT STUDIES

The Impact of Trade Liberalization on the Rice Sector in The Philippines: A Political Economy Approach

A RESEARCH PAPER PRESENTED BY

Heideliza Roba Batausa (Philippines)

In partial fulfillment of the requirements for obtaining the degree of

MASTER OF ARTS IN DEVELOPMENT STUDIES SPECIALIZATION: AGRICULTURAL AND RURAL DEVELOPMENT

### MEMBERS OF THE EXAMINING COMMITTEE

Prof. Dr. Ashwani Saith Dr. David Dunham

## THE HAGUE, NOVEMBER 2001

This document represents part of the author's study programme while at the Institute of Social Studies; the views stated therein are those of the authors and not necessarily those of the Institute.

Research papers and theses are not made available for outside circulation by the Institute.

### **Enquires:**

Postal Address: Institute of Social Studies P.O. Box 29776 2502 LT, The Hague The Netherlands

 Telephone : -31-70-4260460

 Telefax:
 -31-70-4260799

 e-mail:
 postmaster@iss.nl

Location:

Kortenaerkade 12 2518 AX, The Hague The Netherlands

### DEDICATION

To the loving memory of my father, Mr. Prudencio R. Batausa who I had the misfortune to lose in the course of doing this research. Pa, this is for you. You will always be in my heart and I would always be your little girl.

To my mother, who belongs to a remarkable generation of women in our family. To my sisters Analili, Jessica, Michelle, and brother Paul Voltaire whom I have grown up with so pleasantly. Through life's ups and downs we've managed to stick together. Hope we'd stay that way, even though life would lead us to different directions.

i



#### ACKNOWLEDGMENT

I would like to acknowledge everyone who helped, in one way or the other, to make this research a reality. I would not have done it without your support and understanding.

To the Netherlands Government for the Netherlands Fellowship Programme that I've had the chance to avail of;

To the Institute of Social Studies, for providing such an enriching and culturally diverse learning environment;

To our lecturers in ARD for steering us in this intellectual journey;

To my research supervisors, Dr Ashwani Saith and Dr David Dunham for their guidance and understanding;

To the University of San Carlos for giving me the opportunity to pursue my intellectual growth in a foreign country; to Sir Oscar, Ma'am Ching, Sir Ramón, Tata and everyone at the Economics Department for their support and encouragement;

To my classmates in ARD for the wonderful times of learning and getting to know each other's culture and personality;

To my Dutch friends Marije, Fanneke, Mette, Maaike and Harry for their friendship and their willingness to share their country with me;

To my fellow Filipino batchmates and to the ISS Filipino community for the friendship we've started which made my stay in ISS worthwhile;

To Weng for her patience and assistance in providing me with the necessary data to complete this paper;

To my old high school and college friends for their encouragement and enduring friendship;

To my family who has always been a source of inspiration, strength and humility;

And most of all, to the Almighty for the gift of life, for the talents and all the blessings I have received in my lifetime.



### TABLE OF CONTENTS

Dedic	ationi
Tickilo	wiedginein
Chapt	er I. Introduction1
1.1 1.2 1.3	Background Information
1.4 1.5 1.6	Objectives of the Study       7         Scope and Limitations       7         Organization of the Paper       7
Chapt	er II. Theoretical Framework and Research Methodology8
2.1	Theoretical Framework       8         The Basic Analysis of Tariffs and Quotas       11         Analysis of Quotas       11         Effects of Protection Policy on the Economy       13         The Simple Analytics of Consumer and Producer Protection       14         Political Economy Angle of Rice       16         Political Economy of Liberalizing Foreign Trade       18
2.2	Research Methodology20
Chapt	er III. The Philippine Rice Sector21
3.1 3.2	Production
3.3 3.4 3.5	Milling/Processing
Chapt	ter IV. The Philippine Experience Of Trade Liberalization
4.1 4.2 4.3 4.4 4.5	Philippine Performance in Agricultural Foreign Trade
T.J	Degree of Froteetion of the race beetor

Chapter	V. Political Economy Of Rice Trade Liberalization
Chapter	VI. Conclusion And Policy Implications45
6.1	Conclusion
6.2	Long-term Implications for the Rice Sector47
Bibl	iography
Am	Jexes 56

iv

# CHAPTER I INTRODUCTION

Agricultural trade liberalization is one of the embattled arenas of international trade. It is mainly because when a country decides to liberalize its trade in agricultural products, particularly for its staple crop, it has to struggle with the idea of feeding its people (food security) in a way that does not necessarily entail producing enough food (self-sufficiency). Domestic food security can never be a priority under comparative advantage marketing.

The logic of international trade is that all countries should base their economic and trade decisions on comparative advantage. In other words, production of any good which another country can produce more cheaply should be stopped, regardless of its cultural or historical significance. When a country as a whole decides to import, the local community loses its only historical source of livelihood. This would appear to lead to cheaper agricultural goods for consumers worldwide, but if countries move away from production of basic staples, they are left vulnerable in times of war or other uncertainties.

Nowhere is this issue more pronounced than in Mexico, where corn is deeply entwined with the social and economic fabric of the nation and where it is also genetically diverse. At the time of the final NAFTA treaty negotiations, and from the viewpoint of Mexico, corn was by far the most important crop included in NAFTA: it accounted for 60% of land under cultivation and a similar proportion of agricultural output by value. In terms of employment generation, corn is the single most important commodity in the economy, providing the main source of livelihood for over two million producers who account for 8% of Mexico's population and 40% of the people working in the agricultural sector.<sup>1</sup>

Before the implementation of NAFTA, one half of Mexico's land was dedicated to corn production, produced by 2.5 million farmers. In 1996, Mexico imported \$1.1

billion in corn, traditionally one of their strongest products. Large numbers of rural workers, both those who deal with corn directly and indirectly, have been and will continue to be displaced by NAFTA. They inevitably migrate to the city, where they have difficulty finding employment. Many of the indigenous farm workers from the south of Mexico who are now in the north doing wage work in export agriculture were displaced from the south by inexpensive and subsidized U.S. corn.<sup>2</sup>

Another case is India. For a country of India's size, food security is a very important concern. In the Agreement on Agriculture (AoA), there is a provision with a lip service made to protect non-trade concerns, and food security is one of them. If a country like India start depending on the international market, it is actually going to destabilize the market for food grains completely.

On the other hand, the liberalization of trade is expected to reduce rice production in such countries as Japan, Korea and Taiwan where per-hectare yields have been traditionally high. Current rice production in Japan, for example, has reached 11.4 million tonnes per year for about 126 million people. Per capita consumption is 80 kilograms per year which leaves less than 11 million tonnes consumed. With liberalized trade, Japanese consumers would have access to much cheaper imported rice. More Japanese farmers may in the end give up rice farming (Davidson and Esparron, 1999).

The Philippines may experience a different fate. Having joined the World Trade Organization, it is undergoing progressive reduction in applied rates of duty. The major exception is agriculture, where it is moving towards creating a two-tiered scheme of applied tariffs of 3% for raw materials and intermediate goods, and 10% for finished products by January 2003, and a uniform 5% tariff rate by January 2004<sup>3</sup>.

<sup>&</sup>lt;sup>1</sup> Source: http://www.twnside.org.sg/title/mexico.htm.

<sup>&</sup>lt;sup>2</sup> http://www.earlham.edu/~pols/17Fall97/nafta/Agricultural.html

<sup>&</sup>lt;sup>3</sup> Philippines: Trade Regulations and Standards from the website

http://www.tradeport.org/ts/countries/philippines/regs.html

There is mounting pressure coming from those groups in favor and those against the impending trade liberalization in rice. Militant groups and farmers advocates are only too eager to oppose the lifting of quantitative restrictions on the grounds that local producers will not be able to compete with imported rice, leading farmers to abandon their rice fields, causing severe unemployment in the countryside and ultimately endangering the country's food security situation. The government on the other hand has commitments to the international community that it must comply with, alongside fulfilling its duty to the people. This paper will look at the different players in the Philippine rice sector, on how they stand to be affected and how they would react when the government will lift the quantitative restrictions on rice imports in order to replace them with tariffs. These different players are bound to make adjustments once trade liberalization comes and this paper tries to look into those moves. Lastly, this paper will examine the long-term implications of trade liberalization for the rice sector as a whole.

#### 1.1 Background Information

The Philippines gained political independence from the United States with the founding of the Republic in 1946. The country then adopted a more aggressive policy towards industrialization, primarily through exchange controls (during the 1950s) and tariff protection (during the 1960s). During these two decades trade distortions caused the peso to become overvalued. The government also intervened on the input side by encouraging the growth of rural banks and by providing fertilizer subsidies and temporary spurts of credit.

The country followed a republican form of government in electoral politics until September 1972, when Marcos declared martial law and dissolved the legislature. Under martial law, the government had considerably more leeway to intervene in prices, and it did so through the New Society program. During the 1970s and early 1980s the government intervened much more actively in the agricultural export sector, most notably in sugar and coconut (Intal and Power, 1991:176).

The long years of dictatorship was overthrown by a popular revolution which ushered Corazon Aquino into the presidency. Democracy was restored, and a new Constitution was promulgated in 1987. The restoration of formal democratic institutions under the Aquino administration however, has been widely regarded as a simple continuation of the style and substance of pre-authoritarian politics and society. It restored the influence of the old economic elite or 'oligarchy' which the Marcos regime had initially sought to supplant by its coterie of cronies.

The central theme of what may be regarded as the dominant reading of Philippine political economy is the likelihood of the state being 'captured' by vested interests, which were traditionally those of local elites with wealth based on agrarian concerns. This theme continues an earlier tradition in Philippine political literature that has come to be known as the 'factional model' of Philippine politics. The economic elite is seen as divided into various factions and alliances, cutting across class lines and based on the political and economic power of local elites originating in agrarian land ownership and personalistic patron-client relations. Such local interests and influences are then successively consolidated upwards and ultimately expressed in national political factions. Elections are perceived as periodic contests among factions for gaining access to state resources (de Dios, 1999:134).

In terms of the landed aristocracy and great financial conglomerates (families), the elite class which comes from those strata had long ago branched out into industry, commerce, finance and so on. Hence, the bias of the class is not necessarily for or against agriculture or any other economic sector, for that matter. Certainly, a close link between those with political power and those with economic power is typical in the Philippines (Takeuchi and Hagino).<sup>4</sup>

Now and then, organized economic groups in the Philippines-particularly rice landlords, sugar planters, and coconut producers-have promoted their interests

<sup>&</sup>lt;sup>4</sup> Source www.worldbank.org/html/dec/Publications/Workpapers/WPS1800series/wps1883/wps1883.pdf

effectively on specific issues. So have labour organizations, associations of small farmers, and the chambers of commerce and industry. But no political party has developed an ideological consensus or enduring basis for a workable political coalition, and the patron-client pattern has endured.

The Philippine political system has made it possible for the narrower, individual interests of particular client groups to gain attention. Philippine leaders have been able to rationalize such policies only on nebulous grounds of national interest and "balance". Leaders have taken particular care to appear moderate and to avoid policies that appear to strongly favor one economic interest over another. Even when leaders have taken a strong position on pricing issues, they have retreated quickly in the face of negative public reaction (Intal and Power, 1991:177). Such is the reality of Philippine politics.

#### 1.2 Statement of the Problem

Rice is a very important crop in the Philippines. It is produced by a significant number of small peasant farmers. It is the staple food of most Filipinos; a few segment of the population having corn as their staple. The average Filipino spends roughly half of his income on rice and it constitutes around 25% of the Filipino's food basket (Oryza Market Report).

Subsequent administrations since Marcos have treated rice as a political commodity. The term implies that a knowledge of the political setting, its structure and its conflicts is necessary for an understanding of the rice economy and of government policies towards rice. One needs, so to speak, a model in which the relationships, variables and parameters are political as well as economic. In referring to rice as a commodity more political than economic, one asserts that a number of important developments in the rice economy –changes in prices, production, consumption, farmers' incomes, etc. –may be traced to changes in the political components of the model (Mangahas 1974:1).

The rice sector has been afforded considerable protection against foreign competition. When trade barriers started falling, the Philippines asked the WTO to give the country's agriculture sector four more years of protection (i.e. until 2004) to prepare farmers for global competition. Then Department of Agriculture Secretary Edgardo Angara proposed the delay in lowering of tariffs for agriculture products because competing local industries were not yet ready for globalization.

The quantitative restriction (QR) on rice was retained using the Special Treatment Clause of the General Agreement on Tariffs and Trade (GATT). However, this will only be up to year 2004, after which a uniform tariff of 5% will be imposed on imported rice. The shift from quantitative restrictions to a uniform tariff would have various implications on the rice industry, especially as protection of local rice producers from foreign competition is gradually decreased.

In line with the liberalization program, the Department of Agriculture (DA) will allow private traders starting 2003 to bring in a bigger portion of the country's rice import requirement. The DA will increase this allocation yearly until it fully transfers the import rights of the NFA to private traders. The National Food Authority (NFA) claims losses of about P2 billion yearly because of its importation.

This research aims to investigate the consequences of trade liberalization, i.e. the removal of quantitative restrictions on rice imports to be replaced by tariffs, on the rice sector in the Philippines.

#### 1.3 Research Questions:

et.

- 1. Who are the major stakeholders in the impending trade liberalization of Philippine rice imports?
- 2. What is the impact of liberalizing rice imports on:
  - a. Producers?
  - b. Processors/millers?

- c. Traders?
- d. Consumers?
- 3. What will be the long-term implications of liberalizing trade to the rice sector as a whole?

#### 1.4 Objectives of the Study

The main objective of the research is to provide a picture of the stakeholders in the prospective rice trade liberalization. It aims to analyze the impact of trade liberalization on producers, traders, processors/millers, and consumers by looking at the way their positions are going to be affected. It will also examine the long-term implications of liberalizing trade to the rice sector as a whole. As a contribution to research, this paper wants to look at trade liberalization from a political economy angle as distinct from the usual quantitative methods employed by most authors.

#### 1.5 Scope and Limitations

This study focuses on the major players in the Philippine rice sector and will focus on ten-year time period, from 1990 to 2000. It relies on secondary data and printed literature published by various institutions and has necessarily been constrained at times by data unavailability or inaccessibility. Data for this research comes from the Bureau of Agricultural Statistics (BAS) and the National Statistics Coordination Board (NSCB), and for some parts adopted from Mangabat (1998, 1999).

#### 1.6 Organization of the Paper

The paper is structured as follows. Chapter II contains a review of the existing literature, the theoretical basis and the methodology of the paper. The nature and characteristics of the Philippine rice sector are explored in Chapter III. Chapter IV reports the Philippine experience of trade liberalization, especially in agriculture. Analysis of the impact to the major players in the rice sector is contained in Chapter V and finally, Chapter VI draws the conclusions and policy implications.



#### CHAPTER II

#### THEORETICAL FRAMEWORK AND RESEARCH METHODOLOGY

This chapter begins by looking at theories concerning free trade and agricultural trade liberalization. This is followed by a discussion of the political economy angle, and the methodology involved in this research.

#### 2.1 Theoretical Framework

There has always been debate as to whether free or liberalized trade will contribute greatly to an economy or not. Todaro (2000) contends that liberalizing trade generates rapid export and economic growth because free trade provides a number of benefits, among which are promoting competition and generating pressures for increased efficiencies, attracting foreign capital and expertise and the needed foreign exchange, and eliminating costly economic distortions caused by government interventions.

Trade liberalization can take one of two forms: changes in price through the reduction of tariffs, or change in the form of intervention such as a move to impose tariffs in lieu of import quotas (Papageorgiou, et al. 1990:5). Usually trade liberalization is carried out in sequences or phases, wherein a change in the trade policy is also accompanied by other reform policies, such as relaxing foreign exchange polices, for instance.

Aside from offering insights on liberalizing foreign trade in developing countries, Papageorgiou et al. (1990) also outline the common elements of successful liberalization programs undertaken by developing countries. These are momentum, reduced quantitative restrictions, competitive real exchange rates, prudent macroeconomic policies, proper sequencing of the reform, and political stability.

*Momentum*. Programs that started boldly and then followed through with further measures proved more durable than ones that took a more hesitant approach.

*Reduced quantitative restrictions*. Programs that decisively reduced such direct interventions as import quotas generally succeeded. Those that did not generally failed. This was one of their study's largest findings.

*Competitive real exchange rates.* Most of the successful programs began with a depreciation of the real exchange rate. Thereafter, no particular trend in the exchange rate was clearly associated with success – but most of the programs that lasted avoided sharp fluctuations.

*Prudent macroeconomic policies.* On the whole, the successful reformers kept their budget deficits in smaller in relation to output than others. In fact, reversals of trade liberalization were more commonly associated with poor macroeconomic policies than any other factor, including the power of vested interests and short-run unemployment.

*Proper sequencing of the reform.* Programs that tended to go wrong, when capital market liberalization preceded trade liberalization.

*Political stability.* Reforms, once introduced, were difficult to sustain against a background of unstable government.

The transitional costs of liberalization seems smaller than many feared:

*Balance of payments.* In most of the reforming countries, exports increased faster than imports, and the foreign exchange reserves grew larger – not smaller, as feared by many policymakers – after the reforms were launched.

*Employment and growth.* Even in the short run, liberalization went hand in hand with faster, rather than slower, growth. This was especially true of stronger programs for which the rigidities to be overcome – and thus, it might have seemed, the costs of transition – were greatest. Trade liberalization did not, as a rule, raise unemployment even in the individual sectors of the economy such as manufacturing or agriculture.

*Distribution of income*. Because the reforms tended not to increase unemployment, (even in the short run) they posed no direct threat to the distribution of income. There is no evidence that trade liberalization hurts the poor.

Basically, the idea behind trade liberalization is that comparative advantage will come out for all participating countries. The problem with this is that it is premised on an ideal situation where all competing firms or competing economies start from a level-playing field. It fails to consider the fact that countries have reached different levels of development. Some countries have achieved a high level of development, while others are still quite backward and hardly developed at all (Mariano 1995 as cited in Gabriel-Padre 2000:10).

In reality, agricultural production and trade is not determined by comparative advantage so much as by the comparative access to subsidies –an area in which food producers in the industrialized world enjoy an unrivaled advantage over those in developing countries (Watkins 1996 cited in Gabriel-Padre 2000). He goes on to say that, far from creating "market conditions" in which prices reflect the real costs of production, the removal of trade barriers distorts markets by sending false signals through the trading system, creating unequal competition with the North's heavily-subsidized, large-scale, capital-intensive systems. Thus, the countries from the South are losing their ability to produce their own food. As developing country markets are being pried open by trade regulations, small farmers lose their source of livelihood due to unfair competition (Kwa and Bello 1998 as cited in Gabriel-Padre 2000). The bigger farmers that survive produce not for domestic market but for export markets and food production is no longer responsive to local needs. A situation arises in which developing countries continue to export food, yet their own people are starving.

Clearly, there are gainers as well as losers as a consequence of liberalizing trade. Gains might be divided between countries depending on their relative muscle and the position to employ their power. Losers are those small farmers that are being pushed out as they find themselves in competition with big agribusiness involved in exporting foods which the governments are supporting. And big gainers are the transnational corporations (TNCs) that control inputs, establish large-scale contract farming in developing countries, and are the main players in the processing and marketing of food (Redcliff 1977 as cited in Gabriel-Padre 2000).

#### The Basic Analysis of Tariffs and Quotas

The basic theory of protection is an old and controversial issue in the field of international trade. It is relatively simple to set out. Let's consider a particular commodity, say rice. If an LDC were to open its economy to world trade, its small size in relation to the world market would mean that it would face a horizontal, perfectly elastic demand curve. In other words, it could sell (or buy) all it wanted at a lower world price. Domestic consumers would benefit from the lower price of imports and the resultant greater quantity purchased, while domestic producers and their employees would clearly suffer as they lose business to lower-cost foreign suppliers. Thus at the lower world price, quantity demanded would rise, whereas the quantity supplied by domestic producers falls from. The difference between what domestic producers are willing to supply at the lower world price and what consumers want to buy is the amount that will be imported.

Facing the potential loss of domestic production and jobs as a result of free trade and desiring to obtain infant industry protection, local LDC producers will seek tariff relief from the government. The tariff causes the domestic price of rice to rise. Local consumers now have to pay the higher price and will reduce their quantity demanded. Domestic producers can now expand production (and employment) and the government would collect revenue on imported rice.

#### Analysis of Quotas

In partial equilibrium analysis, it is conventional to start by analyzing the tariffequivalent of a quota. For this purpose, the essential point is somewhat similar. That is, the domestic outcome would be the same, given the postulated demand and supply curves, if instead of a tariff, imports were restricted by licensing to a certain fixed amount. In principle, the tariff-quota equivalence theorem provides a useful empirical tool for analyzing the static effects of a trade regime which relies on both tariffs and quotas.

There are, however, several qualifications to tariff quota equivalence. Perhaps more important is the consideration that a tariff, unless changed, confers the same proportionate degree of nominal protection to an industry over time and domestic prices can be expected to change with changes in world prices. By contrast, a quota (unless changed) normally confers a different rate of nominal protection over time, as fluctuations in world prices are not reflected in the domestic market. Thus, shifts in domestic demand can alter the degree of nominal protection unless quotas are deliberately altered by the authorities.

The other major difference between tariffs and quotas concerns possible differences in the allocational and distributional consequences of the treatment of what would have been tariff revenue in the case of a tariff. With a tariff, government revenues will be equal to the amount of the tariff times the volume of imports. With a quota it is not government revenue but instead represents the value of import licenses issued by the government. Depending upon the mechanism used for allocating those licenses and upon behavior with respect to government expenditures and revenues, there can be a variety of effects to those originating from the tariff equivalent of the quota.

In practice, there are often *both* tariffs and quotas on importation of particular commodities. If the quota is not binding (i.e. if the individuals can buy all they wish to at the tariff-inclusive price), it is irrelevant to further analysis except as it might become binding at some future date or with shifts in underlying conditions. If it is binding, the domestic price will rise, while the landed cost of the import will be the tariff-inclusive price. The difference is referred to as the "premium" or the "rent" on the import license.

Depending upon the mechanism by which import licenses are allocated to alternative claimants, the allocation of premiums can have differing, and significant, effects upon resource allocation. In effect, recipients of import licenses receive a valuable

property right. When there are ways in which they can "earn" the property right, they attempt to do so. The class of mechanisms under which potential import license recipients attempt to influence the amount they are allotted is termed "rent-seeking" behaviour, conveying the notion that the premium on the import license, while a rent, may be sought after in ways that use resources. When that happens, resources are allocated to obtaining a thing which is in fixed supply; those resources are, at least in the sense that they do not expand the supply, effectively wasted.

Corden (1987) argues that when protection takes the form of quantitative restrictions, which inevitably involve the issue of licenses, there is scope for the benefits in the form of monopoly profits going to the privileged persons with contacts and influence, and also for direct corruption (Corden 1987:16).

#### Effects of Protection Policy on the Economy

The existence of high levels of nominal and effective tariff protection in combination with import quotas and overvalued exchange rates discriminates against the agricultural export sector and in favor of the import-substituting manufacturing sector. In addition to reflecting incorrectly the real terms of trade between agriculture and industry, such distorted domestic product prices tend once again to favour upper-income groups (urban manufactures and modern sector-workers) disproportionately in relation to society's lower-income groups (rural farmers and the urban and rural self-employed). It also encourages socially wasteful rent-seeking on the part of competing exporters and importers. They vie with each other (often through bribes and threats as well as direct lobbying efforts) to capture the extra profits that can accrue to traders with import licenses, export subsidies, tariff protection, and industrial preferences (Todaro, 2000:632-33).

### The Simple Analytics of Consumer and Producer Protection<sup>5</sup>

Many developing countries pursue consumer-oriented programs designed to insulate consumers from high domestic prices of staple food commodities caused by domestic shortages and/or high international prices. The rhetoric of food security also includes the objective of increasing farm-gate prices in order to increase farmer incomes and to increase the domestic production of food for self-sufficiency. For example, the importation of rice in the Philippines is monopolized by the National Food Authority (NFA), a government marketing-board. The NFA is charged variously with providing low and stable prices to consumers, sufficiently high and stable prices to producers, promoting agricultural modernization, insuring food security, and reducing poverty. This is an impossible mission. The government cannot sustain stable producer and consumer prices above and below their respective equilibrium levels without causing fiscal and consequently, economy-wide strain.

Suppose that the government endeavors to lower consumer prices and raise producer prices. In order to maintain farm prices above world prices, the government must pay producers a subsidy equal to the difference between producer and world prices  $(P_F - P_W)$  times the domestic production. This results in an excess burden equal to the deadweight loss plus the subsidy times the marginal social cost of public finance. Lowering consumer prices requires similarly subsidizing consumers by the difference between world prices and consumer prices  $(P_W - P_C)$  times the entire amount of quantity demanded plus an even larger amount due to tax friction. Such programs would be extremely costly and politically unfeasible to maintain, due to the large increase in the implied tax burden (Roumasset 2000:3-4).

Government can achieve an equivalent result by banning all private rice trade, importing the amount  $Q_D$ - $Q_s$ , selling the rice at a loss and continuing to subsidize production as before. The required subsidies, excess burden, and tax friction will be

<sup>&</sup>lt;sup>5</sup> This section relies heavily from Roumasset 2000. Black-Hole Security. University of Hawaii Working Paper. www2.soc.hawaii.edu/econ/workingpapers/005.pdf

exactly the same as before, although there are likely to be additional costs associated with government inefficiencies.

It is important to note that the government cannot maintain the target prices without subsidizing *all* rice produced and *all* rice consumed. Abstracting from quality effects, buying *some* rice at above farm gate and selling *some* rice at below market prices will result in multiple prices –intramarginal prices and equilibrium prices. Political economy suggests that those who obtain the more favorable intramarginal prices are those with greater influence and that the induced influence-peddling will partially dissipate the rents so expensively obtained. Yet this is the inevitable consequence of trying to control prices of a commodity that represents a substantial portion of the economy. Since it is fiscally impossible to subsidize all buyers and sellers, the government must implicitly compromise its ostensible objectives. In addition to operating intramarginally, the government will typically favor consumers or producers at the expense of the other group. In the Philippines, providing for consumers results in negative protection for producers.

An alternative to stabilizing against domestic supply fluctuations with buffer stocks is to vary imports so as to compensate for shortfalls or bumper crops (thereby smoothing out fluctuations in total supply). Despite the fact that this is likely to be welfare-reducing, it may be appealing as a second-best strategy to the extent that some degree of price fluctuation is thought to be politically unacceptable. Allowing prices to fluctuate within a band is less welfare-reducing than a peg, and a proposed mechanism for managing domestic prices within an acceptable band is outlined in part.

Another commonly alleged motive for government intervention to stabilize prices is the need to control non-competitive rice traders. It is commonly believed that a rice cartel manages to buy low from farmers during harvest season and sell high to consumers during the lean season. This myth is remarkably resilient to evidence. For example, it has persisted with equal force both before and after Mears' (1974) exhaustive study showing both the competitiveness and efficiency of rice markets in the Philippines and his similar study for Indonesia (1981). Hayami, et al. (1999) also arrived at the same conclusion. Moreover, if barriers to entry are present, they are due to the licensing and other requirements of the regulatory structure. The appropriate policy response is to liberalize those regulations, not to compound the problem with price controls.

The National Food Authority 's attempts to control prices do not work. Setting support prices is ineffective because NFA procurement volume is less that 1% of production. Setting wholesale and retail prices is ineffective because the quality of rice sold at the control price adjusts downwards until equilibrium is restored. What does make a difference to domestic prices is limiting imports. This has the effect of driving up consumer prices. But since the pattern of storage and distribution of those imports is also distorted, the policies drive a wedge between consumer and producer prices.

The present rice policy of the government is very lucrative for well-connected rice traders and political insiders. A nominal protection rate (NPR) of 78% (Roumasset, 2000) means that importation can potentially earn 78% profit above costs reckoned up to the wholesale warehouse. To what extent these potential profits are actually realized by particular individuals or wasted through inefficiency is unknown.

#### Political Economy of Rice

An important political objective in most rice growing countries is to maintain price stability through domestic procurement, public sector monopoly in external trade, maintenance of stocks and operation of public food distribution systems for urban consumers and politically sensitive groups (Childs, 1990; Hossain, 1996).

Provided there is free trade in rice, it is not difficult for high-income food deficit countries and the affluent consumers to access rice from the market, even when there is scarcity. The market will distribute the scarce supplies in favor of the affluent who can pay higher prices. It is the poor consumers in the low-income countries who will suffer when there is a scarcity of staple food. But surge in food prices will not only accentuate the precarious poverty situation now prevailing in the low-income countries of Asia, it will also have far reaching effects on their domestic economy. Since rice is a major component of the food basket, the increase in prices will contribute significantly to inflation and put upward pressure on industrial wages, as the organized labor force bargain for sustaining the growth in real incomes. Industrial profits will shrink, and the competitive strength of the economy in the production of labor intensive manufactures will erode. When prices soar, the government may intervene in the market, to protect the interest of the nation. Imposing ban on exports of staple food when there is a scarcity in the domestic market is not a rare phenomenon Food scarcities are often used by stronger nations as an important weapon to interfere in the domestic politics of the weaker nations (Iraq and North Korea are recent examples). Considering the political cost, many Asian countries may maintain a safe capacity of domestic production of staple food despite the additional economic cost of pursuing this policy.

Rice is more important to the economy and people at lower income levels, and hence is an important intervention point for promotion of agricultural development and the alleviation of poverty. In countries with per capita income below US\$500, rice accounts for 20-30% of the gross domestic product, 30-50% of the agricultural value added and 50-80% of calories consumed by people. The urban poor and the rural landless, the most vulnerable group with regard to food security, spend 50-70% of their incomes on rice. Therefore, most Asian governments regard rice as a strategically important commodity, and maintaining stability in rice prices is a key political objective. Playing such an important role in the lives of its producers and consumers, it is little wonder that rice occupies a major position in Asian culture.

The uncertainty in achieving food security through international trade may encourage the middle and high-income countries to maintain a safe capacity to produce the staple grain through market interventions, though it is <u>not</u> economically efficient (Hossain).<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> Source thecity.sfsu.edu/~sustain/hossain.html

#### Political Economy of Liberalizing Foreign Trade

Following Alburo (1993:130-134), the following forces and activities have facilitated or hindered the liberalization of foreign trade in the Philippines. Foremost of these is the overall political regime and its vision that underlies the drive for liberalization. In the Philippines, this is not just the political regime but also the changing nature of the regimes that define the environment for liberalization. Where the openness or outward orientation is not constitutionally enshrined but dependent on the political party in power means a strong force to reckon with in efforts towards trade reforms.

A second force is the political power exerted by the executive and legislative branches of government. Where the officials of both branches belong to the same party and vision, the liberalization processes tend to move faster (and symmetrically for protectionists). Where they differ in both composition and philosophy, liberalization efforts would suffer one way or the other. Furthermore, a strong constituency for liberalization must be built and maintained through the political processes. Once there is a broad support for it, the administration needs to safeguard the commitment through continuous dialogues, interaction and education.

The bureaucracy itself is another force to contend with in trade liberalization. The hierarchy of the public and private bureaucracies exerts a strong influence in carrying out protection or liberalization. The extent to which bureaucratic layers are created is tantamount to regulation. There is a certain amount of vested interests among bureaucrats to maintain a status quo especially where that means regulatory powers.

An external force, the policy advise from bilateral and multilateral institutions is another force to reckon with. The question is not whether trade liberalization policy is valid or not. It is rather whether such policy, if attributed to an external source, generates local support for its sustainability. It is important that such a policy be perceived as an indigenous decision, arrived at by Filipino policymakers and a Filipino political system.

On the private sector side, the fifth force is the array of industrialists, traders groups, and organized business associations which pursue their individual or collective interests in agreeing to or opposing liberalization policies. Usually, there has been no unanimity among these groups on trade reforms especially at the detailed level. Consumer groups have never constituted a force in the course of liberalizing foreign trade. Benefits from liberalization are so widely spread among consumers that there is no organizing mechanism, as opposed to the narrow injury to specific groups which therefore stimulate organized resistance.

A final force is one of a coalition among unlikely elements. For example, in the trade liberalization scheme that started in 1986, multinational corporations (MNCs) which have been exploiting domestic markets under heavy protection found themselves siding with nationalists in postponing and opposing liberalization. The newly-established government of Corazon Aquino picked up from where the last episode was aborted, in the area of import liberalization. It started with the inclusion of many items scheduled for liberalization from 1983 that were never implemented. Problems of sequencing and timing were encountered, and as a result distorted the structure of tariffs that had been completed as part of the 1986 Tariff Reform Program. And because of the inter-industry nature of the products involved, further distortions took place. To correct the problem, the government set minimum tariff rates at 10 percent and this affected products originally restricted for which tariff rates were zero. Obviously, these are the products where the multinationals are engaged in.

The various activities that these forces have used to promote their interests included any or a combination of the following: (a) lobbying with the executive or legislature or the bureaucracy in specific cases, (b) delaying or postponing liberalization where it appears to be inevitable, and (c) exaggerating losses or impact arising from liberalization moves.

In most of the Philippine trade liberalization episodes, active lobbying took place before the executive branch or with the legislature. During the period of Martial Law rule, lobbying took place in the halls of the bureaucracies. The evidence in the Philippines seems to show that concentrated industries are major actors in lobbying given the fact that protection promotes concentration if not monopoly and that these are likely to lose much from liberalization.

When liberalization seems to be an inevitable policy, the activities of various forces are not to oppose it but to delay or postpone the specific inclusion of products and sectors in the program. Such is the case of rice. Where decisions at certain levels of the executive or the bureaucracy are not considered final, efforts will continue.

All throughout the various episodes of trade liberalization in the Philippines, industry groups and vested interests enhanced their cause by exaggerating losses to labor and the national economy arising from imports from abroad. These activities have also exploited labor's organizations in maintaining the *status quo*.

#### 2.2 Research Methodology

This research is descriptive and analytical in nature. It employs qualitative and quantitative methods in addressing the research problem. It looks at the major stakeholders in the impending rice trade liberalization from a political economy point of view, i.e. how strong each interest group's stake is and how much influence it has on the outcome of the trade liberalization process.



# CHAPTER III THE RICE SECTOR IN THE PHILIPPINES

This chapter is devoted to a discussion of the rice sector in the Philippines, looking into its production, marketing, milling and consumption aspects. An attempt will be made to bring out the regional dimensions of palay/rice production, area harvested and yield. Lastly, it will try to trace the forward and backward linkages of rice production.

As noted earlier, rice is a very important crop in Philippine agriculture. It is the staple crop of most farmers and the staple food of virtually every Filipino. No other crop is more entwined to the social, economic and political problems of the Philippine countryside than rice. It's no wonder that issues around rice are sensitive and controversial.

The rice/palay subsector contributed around 16 to 17.5% of gross value-added in agriculture in the 1990s while this figure was in the vicinity of 20% in the 1970s and 16% in the 1980s (see Annex Table 1).

In terms of its contribution to total agricultural output, palay accounted for around 15.7% of agricultural output in 1990 and this has increased to 16.3% in 2000 (see Annex Table 2).

The palay subsector has not necessarily been the most profitable area of agriculture with a ratio of gross returns to total cost decreasing from 1.33 in 1991 to 1.14 in 1999 or an average of 1.24 from 1991-1999 (see Annex Table 3). Despite this dismal performance, small peasant- and medium-scale farmers still continue to grow rice, obviously not destined for the market but for subsistence consumption.

Rice farms in the Philippines are covered by the agrarian reform law, which has effectively dismantled the feudal landlord/tenant relationship, where the landlord owns the land and the farmer is a sharecropper. The average land holding is 3 hectares, the average scale of rice farming for most of Southeast Asia.

An FAO Report<sup>7</sup> points out that many researchers have little appreciation of the rice industry as a business. Consumers have their preferences, which the processors seek to satisfy. The farm production sector supplies the raw material to the processors. This supply and demand system is however often distorted by political policy. Consumers demand a steady supply of good quality rice products at reasonable prices, farmers want the highest prices for their harvest, and processors and traders have to make a living inbetween. Meanwhile government policy is to import cheap rice for consumers, maintain a high local farm gate price for paddy, and leave the processing sector to the market forces. This uncertainty provides little incentive for the private entrepreneurs to invest in more efficient processing technologies. Big business has shied away from the rice processing business in countries like the Philippincs, and therefore public sector research has to provide the small entrepreneurs with the necessary technology.

The same study revealed that the farmer receives 47.6% of the processed value of his harvest while the processor only gets 1.8% of the market value of the farmer's harvest. The farmer's income is limited by the size of his land holding while that of the processor is limited by plant's capacity, and the capital to buy paddy.

#### 3.1 Production

Rice is produced by a majority of small farmers whose land holding do not exceed three hectares. Data show that the average farm size of palay has decreased from 3.0 ha in 1960 to 2.3 in 1980 to 1.8 in 1991 (see Annex Table 4). The same phenomenon seems to be true for other crops like corn, sugar, coconut, tobacco and coffee. The Gini coefficient

<sup>&</sup>lt;sup>1</sup>Source FAO Report http://www.fao.org/docrep/x5427e/x5427e0i.htm#TopOfPage

for palay stood at 0.45 in 1960 but it has become 0.36 in 1991. This means that there's an increased inequality in palay farms distribution.

Over a period of ten years ending in 1996, the proportion of small farms had been expanding. The Philippine Agrarian Reform Council Secretariat reported that the government had acquired and distributed about 4.1 million hectares of agricultural lands to agrarian reform beneficiaries.

Paddy production from 1990 to 2000 has been steady over the range of 9 to 11 million metric tons, though production dipped to about 8.5 million metric tons in 1998, the height of the El Niño phenomenon. The total harvested area in the country is around 3.5 million hectares, on the average from 1990 to 2000 while yield per hectare is about 3 metric tons (see Annex Table 5).

#### Regional Characteristics

The Central Luzon Region<sup>8</sup> (Region 3) dubbed as the "Rice Bowl or the Rice Granary of the Philippines" produces the bulk of the country's domestic production (see Table 1). Cagayan Valley Region (Region 2) comes second. The third largest producer is the Western Visayas Region (Region 6).

Region	Production (in metric tons) 2000	Percentage	Production (in metric tons) 1999	Percentage
Philippines	12,389	100	11,787	100
CAR	256	2.0	221	1.8
Region 1-Ilocos Region	1,208	9.8	1,082	9.1
Region 2-Cagayan Valley	1,785	14.4	1,709	14.5
Region 3-Central Luzon	1,888	15.2	1,843	15.6
Region 4-Southern Tagalog	1,207	9.8	1,207	10.2

Table 1. Percent Shares of Regions in National Paddy Production, Philippines, 1999-2000

<sup>8</sup> Administrative regions are composed of provinces. At present there are 15 administrative regions in the country.

Region 5-Bicol Region	672	5.4	720	6.1
Region 6-Western Visayas	1,608	13.0	1,532	12.9
Region 7-Central Visayas	215	2.0	208	1.8
Region 8-Eastern Visayas	518	4.0	506	4.3
Region 9-Western Mindanao	448	4.0	326	2.8
Region 10-Northern Mindanao	336	3.0	332	2.8
Region 11-Southern Mindanao	710	6.0	681	5.8
Region 12-Central Mindanao	887	7.0	794	6.7
Region 13 CARAGA	308	2.0	280	2.4
ARMM	343	3.0	345	2.9

\*CAR-Cordillera Administrative Region, ARMM-Autonomous Region for Muslim Mindanao

Source: Bureau of Agricultural Statistics.

In terms of area harvested, it is Western Visayas that leads all regions at 14 percent of total area, followed by Central Luzon at 13 % and Cagayan Valley at 12% (see Table 2).

Region	2000	%	1999	%
Philippines	4,038	100	4,000	100
CAR	85	2.1	75	1.9
Region 1-Ilocos Region	351	8.7	334	8.4
Region 2-Cagayan Valley	493	12.2	484	12.1
Region 3-Central Luzon	530	13.1	528	13.2
Region 4-Southern Tagalog	408	10.0	412	10.3
Region 5-Bicol Region	290	7.1	302	7.6
Region 6-Western Visayas	573	14.1	574	14.4
Region 7-Central Visayas	101	2.5	97	2.4
Region 8-Eastern Visayas	219	5.4	221	5.5
Region 9-Western Mindanao	154	3.8	129	3.2
Region 10-Northern Mindanao	96	2.3	94	2.4
Region 11-Southern Mindanao	205	5.0	215	5.4
Region 12-Central Mindanao	269	6.7	271	6.8
Region 13 CARAGA	117	2.9	152	3.8
ARMM	148	3.7	112	2.8

Table 2. Percent Shares of Regions in Total Area Harvested, Philippines, 1999 & 2000.

Source: Bureau of Agricultural Statistics.

When it comes to yield, measured in metric tons per hectare, Regions 1, 2, 3, 10 and 11 have yield figures above the national figure. Central Luzon and Cagayan Valley have comparable yield figures while that of Western Visayas is slightly lower (see Table 3).

Region	2000	1999
Philippines	3.1	3.0
CAR	3.0	3.0
Region 1-Ilocos Region	3.4	3.2.
Region 2-Cagayan Valley Region	3.6	3.5
Region 3-Central Luzon Region	3.6	3.5
Region 4-Southern Tagalog Region	3.0	2.9
Region 5-Bicol Region	2.3	2.4
Region 6-Western Visayas Region	2.8	2.7
Region 7-Central Visayas Region	2.1	2.1
Region 8- Eastern Visayas Region	2.4	2.3
Region 9-Northern Mindanao Region	2.9	2.5
Region 10-Northern Mindanao Region	3.5	3.5
Region 11-Southern Mindanao Region	3.5	3.2
Region 12-Central Mindanao Region	3.3	2.9
Region 13-CARAGA	2.6	2.3
ARMM	2.3	2.5

Table 3. Yield Per Hectare by Region, the Philippines, 1999 & 2000

Source: Bureau of Agricultural Statistics

Data from the 1991 Census of Agriculture<sup>9</sup> reveal that out of the roughly 2.4 million rice farms throughout the country, around 300,000 (13%) are located in the Western Visayas Region (Region 6). However, in terms of area planted, it is Central Luzon (Region 3) which has the most extensive area, around 16% of the total area planted to rice (see Table 4).

<sup>&</sup>lt;sup>9</sup> The Census of Agriculture is conducted every ten years, the next one to be conducted next year yet. The farm distribution is assumed to be true up to now because it is in terms of percentages, so only the numbers vary.

Region	No. of Farms Reporting	%	Area Planted (in hectares)	%
Philippines	2,367,084	100	4,009,128	100
National Capital Region	2,823	0.1	10,535	0.2
Cordillera Administrative Region	82,252	3.5	83,148	2.0
Region 1-Ilocos Region	270,737	11.4	280,561	6.9
Region 2-Cagayan Valley Region	194,102	8.2	444,446	11.0
Region 3-Central Luzon Region	267,277	11.3	626,704	15.6
Region 4-Southern Tagalog	262,461	11.1	430,147	10.7
Region 5-Bicol Region	182,382	7.7	295,006	7.4
Region 6-Western Visayas	299,193	12.6	524,270	13.0
Region 7-Central Visayas Region	97,374	4.1	115,086	2.9
Region 8-Eastern Visayas Region	155,681	6.6	262,468	6.5
Region 9-Western Mindanao	94,500	4.0	131,831	3.3
Region 10-Northern Mindanao	111,972	4.7	194,852	4.9
Region 11-Southern Mindanao	123,724	5.2	230,996	5.8
Region 12-Central Mindanao	113,934	4.8	224,503	5.6
ARMM	108,672	4.6	154,573	3.9

Table 4. Number of Rice Farms Reporting and Area Planted by Region, Philippines, 1991

Source: 1991 Census of Agriculture, National Statistics Office (NSO).

#### Inputs in Rice Production

The backward linkage in rice production would include inputs like seeds, fertilizers, agricultural machinery and labour. Government intervention is present on the tradeable agricultural inputs in the form of tariffs on fertilizer, pesticides and machinery. Quantitative restrictions for fertilizer imports and advanced sales tax on the other farm inputs were abolished in 1986. In 1990, the tariff for urea fertilizer was already 5% and was reduced further to 3% in 1991 until the WTO period. For agricultural machinery, a two-wheel tractor has a tariff rate of 30% in the pre-WTO period and it was reduced to 20% in 1995 and 1996. It declined further to 10% beginning 1997. Threshing machinery other than the combined harvester-thresher has a tariff of 30% from 1990 to 1993. It was reduced to 20% in 1994 to 1996 and reduced further to 10% for the 1997-1999 period.

#### 3.2 Marketing
The marketing channels of *palay* (unmilled rice) involves many actors. There are different terminology to distinguish the different stages in the production of the commodity, i.e. rice. Paddy means the rice grains and the stalks. The grains are still to be separated from the stalks through threshing. Palay is rice grains that are yet to be milled and whose husks are yet to be removed.<sup>10</sup>

In the domestic trade, paddy milled or milled rice passes through the different channels as follows: From the multitude of small farms, the marketable surpluses are disposed of through the trade channels and concentrated in commercial warehouses. The greater bulk of the market-directed paddy, however, is first assembled into bigger lots by country buyers in the production area. These buyers may either be local paddy dealers (viajeros) or commission agents of the warehouse establishments. Paddy procured by these country buyers is transported in motor vehicles (usually trucks, trailers hitched in jeeps, etc.) from the farms to the warehouses. Most of the paddy is deposited in warehouses located in the same regions, except those purchased by the viajeros who bring to their respective provinces.

Rice millers perform drying, storage and milling services. From the mill, rice is distributed to its local and inter-regional markets either directly to final end-users or through several market intermediaries including major market wholesalers, transient rice dealers, local rice dealers or retailers. These market agencies buy and sell rice among themselves. This would be the case when a local rice dealer sells to a transient dealer who then brings the rice to a wholesaler in a major market center like Manila. The wholesaler may in turn sell to another transient dealer who resells the commodity to a local rice dealer in another region. Wholesalers deliver milled rice to major trading centers in Manila (for Luzon island), Cebu (for Visayas island), and Davao (for Mindanao island).

The rice mills then sell the milled rice to the distributors –wholesalers and/or retailers –and they would in turn distribute the milled rice to the supermarkets, local marketplaces, small stores, etc. (see Annex Figure A).

27

<sup>&</sup>lt;sup>10</sup> Adapted from the PPI News Update, a publication made by the Market Research Group.

The major route of rice retailing in Laguna and in the whole of the Philippines is specialized rice stores usually operating inside local town markets, although small grocery stores (sari-sari) also sell rice to consumers (Hayami, et al. 1999:91).

Activity	Frequency	Percentage	
Retail	76,286	62.79	
Wholesale	3,589	2.95	
Retail-Wholesale	11,365	9.35	
(Combined)			
Milling	10,444	8.60	
Warehousing	10,622	8.74	
Threshing	1,111	.9	
Shelling	329	.2	
Mechanical Drying	471	.4	
Transporting	5,051	4.2	
Others	2,226	1.8	
TOTAL	121,494	100.0	

Table 5. Number of Registered Grains Business Enterprises (Per Line of Activity)

Source: National Food Authority.

#### Inter- Province Rice Flow

Palay is moved from the source sites by traders to alternative milling sites. Millers in Nueva Ecija, Bulacan and Pangasinan buy at a high price while palay traders with trucks earn more income in transporting from distant sources because the farther the source is the more income from transport is expected. It is noticeable that the main junctions occur before entering into informal grains assembly areas. These are open spaces, usually gasoline stations, where trucks can park and drivers can rest and eat.

Millers also gather in these informal grains assembly areas and maintain an agent to do the buying and classification of palay. This usually occurs very early in the morning around 5:00 A.M.

The bidding atmosphere observed in these areas indicate that competition for supply is very high.

Millers are located along the national highway and are usually concentrated in one municipality. Thus traders can locate mills easily and enjoy the advantage of good roads.

The nearer the miller to the demand area (Metro Manila), the higher buying price is expected.

There are two points of entry for rice going into Metro Manila: near Mc Arthur Highway and North Diversion road going towards Rizal Avenue and EDSA.

#### Distribution – Consumption Level

Distribution –consumption level participants in the demand area which is Metro Manila consists of several types of rice traders: rice "viajeros," wholesalers, wholesaler/retailer; and retailer/wholesaler. They function as facilitators in the rice distribution process. They are "rice traders" who procure and sell rice in small, medium or large scale operations.

Rice viajeros are mobile rice wholesalers who have their own truck and utilize their own resources for operation. They could be categorized into two:

- a) Independent rice traders who procure palay from farmers for custom milling then sell it as rice.
- b) Wholesalers licensed to sell wholesale rice who operate on a large-scale basis. They have bigger resources, such as capital, warehouses and communication skills. Study shows that wholesalers are the Chinese businessmen in Binondo.

Generally, the wholesalers operate in six locations: Dagupan, Paco-Pasay, Pasig, Marikina, Quezon City and Sta. Mesa.

About 70% of rice from Region 2 (Cagayan Valley Region) that comes to Metro Manila pass through the Dagupan (Pangasinan) wholesalers.

Miller-wholesalers sell rice to wholesalers in Dagupan, Paco-Pasay and other parts of Metro Manila. They now practice telemarketing.

The presence of many viajeros (from regions 1 and 3) indicates an abundant supply of rice in the market.

Retail prices of regular milled rice (RMR) slightly differ per market place which indicate that consumers could be fairly confident of a similar price regardless of market place. This may be due to the release price set by NFA for RMR in order to stabilize prices.

### 3.3 Milling/Processing

Data from the National Food Authority show that the big proportion of millers/processors in the country are engaged in the milling of rice. The milling of corn comes second. Most mills adopt the Engleberg-type single pass mill one step process which yields 53 percent milled rice. On the average, a good commercial mill working with good high-yielding varieties will yield 65 percent rice of which 80% is head rice, 17% brokers,8% is rice bran, and the remainder is hull. In 1985 about 50% of the milling capacity in the Philippines was processed by Engleberg mills. The government has not always been supportive of the milling sector, and not surprisingly, most mills go into wholesaling and/or retailing in order to survive.

Type of Facility	No. of Units	Capacity (Thousand bags)
Ricemills	10,624	153.93
Cornmills	1,577	23.94
Threshers	1,187	26.16
Shellers	340	10.26
Dryers	683	74.02
		1
		Capacity (Million bags)
Warehouses	11,670	93.11
Transport Units	8,660	2.88

Table 6. No. of Registered & Licensed Grains Post-Harvest Facilities (By Type)

Source: National Food Authority (NFA) Website http://www.nfa.gov.ph/grains.html

# 3.4 Consumption

At low levels of income, when meeting energy needs is a serious concern, rice is considered a luxury commodity. With increases in incomes, people tend to substitute low-cost sources of energy such as coarse grains, cassava and sweet potato, for rice. But at high levels of income, rice becomes an inferior good. As incomes rise further, consumers go for a diversified diet and prefer high-cost quality food with more protein and vitamins, such as vegetables, bread, fish, and meat. Growing urbanization which accompanies economic growth leads to changes in food habits and the practice of eating outside the home further reduces per capita rice consumption. Japan, the Republic of Korea and Taiwan have already passed through these phases and have experienced a decline in per capita rice consumption after reaching a high level several decades later. Malaysia and Thailand are now experiencing the same phenomenon, and China and Indonesia may soon follow them. The income threshold at which consumers start substituting rice for higher quality and more varied foods has not yet been reached in large countries such as India, Indonesia, Bangladesh, the Philippines, and Vietnam (Hossain 1991).

Data on family income and expenditures show that Filipino families spend at least 40 percent of their income on food. In 1997 food was 44.2 percent of a family's expenditure, of which 39.5 percent was consumed at home while 4.7 percent regularly consumed outside the home. Out of the 39.5% of food consumed at home, 12.8 percent was cereals and cereal preparations. In 2000 food accounted for 43.2 percent, food consumed at home 38.3 percent with cereals and cereal preparations standing at 11.8 percent (see Table 10).

Expenditure Item	1991	1994	1997	2000
Food	48.5	47.8	44.2	43.2
Food consumed at home	44.7	43.5	39.5	38.3
Cereals and cereal preparations	*	*	12.8	11.8
Roots and tubers	-	-	0.7	0.6
Fruits and vegetables	-	-	3.9	4.4
Meat and meat preparations	-	-	6.9	6.9
Dairy products and eggs	-	-	3.0	3.0

TABLE 7 Percentages Of Total Family Expenditure On Food, Philippines, 1991, 1994, 1997 & 2000.

Fish and marine products	-	-	5.9	5.7
Coffee, cocoa and tea	- 1 T -	-	1.1	1.0
Non-alcoholic beverages	-	-	1.4	1.3
Food n.e.c.	-	-	3.7	3.6
Food consumed outside the	3.8	4.2	4.7	4.9
home				

\* Data for 1991 and 1994 do not show the breakdown of food items consumed at home. Source: Preliminary Results of 2000 Family Income and Expenditure Survey, National Statistics Office (NSO), Republic of the Philippines

Different consumer groupings have their own preferences depending on their economic status. In the Philippines where the high yielding varieties dominate in the market, it has been found that restaurants prefer the fluffy grains, and the rural consumers prefer the more sticky varieties. Fluffiness or stickiness depends on amylose content and consumers associate this trait with rice. Filipino consumers are observed to have their own criteria of quality with regards to rice. In order of importance these are variety, purity, whiteness of polish, extent of broken grains, and presence of contaminants such as paddy seeds, weed seeds, stones, and yellow grains. There exists a set of official grades and standards; but the trade follows more informal and subjective guidelines. In the export trade, buyers set their own specifications based on their market. Prices are diverse depending on the quality of the milled rice. The National Food Authority's imported rice for mass distribution is priced at \$0.39 per kg, and the premium grade intended for the higher end market is priced at \$0.51 per kg. Packaged, and graded rice for the class-A markets is priced in the supermarkets at \$0.77 per kg. With this price spread it should pay to produce the highest quality rice.

# 3.5 The Demand for Rice

More than 90 percent of domestic rice is used as food. The rate of population growth is closing in with the growth in rice production. In the 1980-1997 period, rice production grew annually at a compounded rate of 2.18% while population growth was

2.20%. The other factors affecting the demand for rice are income, own price of rice, prices of substitutes, and urban-rural ratio. Before the 1980s, increasing average per capita income induced increases in rice per capita consumption even with increases in rice prices and in the urban-rural population ratio. In 1980, rice per capita decreased slightly relative to population growth. This was attributed to a decline in per capita income and substitution of wheat for rice as a result of liberalization of wheat imports.

The Philippines has always been a net importer of rice, with Viet Nam and Thailand, in that order constituting the country's major trading partners for rice in more recent years. The annual level of import differed with expected domestic rice production and considerations of producer and consumer interests, government storage costs, and political implications. For most of the 1980-1998 period, the country suffered from deficits largely due to the effects of dry spells, typhoons and floods. Generally, deficiencies in output lead to large drawdowns of stocks and hence, imports. The period 1996 to 1998 is characterized by large imports as rice output fell short of food and buffer stock requirements. For some years deficiencies in rice supply were absorbed by the food sector as shown by decreases in per capita consumption (see Annex Table 10). Current buffer stock policies are a 30-day operational reserve during the lean months, typically in the month of July, and a 15-day emergency reserve for food security during rice shortages arising from natural or artificial forces (Mangabat,1999:7).



#### CHAPTER IV

# THE PHILIPPINE EXPERIENCE OF TRADE LIBERALIZATION

Just like any developing country in the world, the Philippines has continually pursued trade liberalization policies. This part of the paper will review recent episodes of trade liberalization, determine their successes and failures and go on to trade liberalization in agriculture. The latter part looks at the Philippine trade in rice and the international competitiveness of the Philippines in rice production.

The Philippines embarked on trade liberalization as early as 1981, with the passing of what is known as the Tariff Reform Act. The Tariff Reform Program from 1981-85 involved tariff reduction from a range of 50-100% to 10-50%. In 1982, the Import Liberalization Program was adopted which lifted import bans on 67% of restricted items and removed import licensing on more than 2,000 products. A new government in 1986 began another episode in its commitment to more extensive liberalization. So, before the Uruguay Round, the Philippines already underwent a removal of quantitative restrictions on an increasing number of imports and expanded the number of commodities subject to reduced tariffs.

In effect, the Philippines' Tariff Reform Program provided for the progressive reduction in applied rates of duty. The major exception is in agriculture, where quantitative restrictions on "sensitive" agricultural products (except rice) were lifted and replaced with protective tariffs. The Philippines is moving towards two rates: three percent for raw materials and immediate goods, and 10 percent for finished products by the year 2003, settling to a final uniform five percent by 2004. Complementing trade liberalization, the Philippines has shifted its customs valuation system from "home consumption value" to "export value", an interim step towards adoption of a "transaction value" system before the year 2000.

Tariffs: The Philippines adopted a minimum access volume (MAV) system for imports of some 85 tariff lines of "sensitive" agricultural products in July 1995. Among those were products, such as pork and poultry, on which the government had undertaken minimum access commitments in the Uruguay Round. The Philippine government also imposed MAV's for imports of fresh, chilled and frozen beef, which had previously been subject to a 30 percent duty. Finally, in some cases, products which had previously been imported without restriction, are now subject to the MAV system. This has resulted in the application of prohibitive tariff levels in cases where no MAV's (subject to in-quota rates) were established.

The three past episodes of trade liberalization in the Philippines were analyzed by Shepherd and Alburo (1991). They reviewed the successes and failures of these three episodes and observed that the Philippines seems to have a "classic" sequence of liberalization: replacing quantitative restrictions (QRs) by tariffs (stage A) followed by promoting manufacturing exports (stage B) then liberalizing the manufacturing importsubstitution sector (stage C). Their conclusion was that the Philippines does not seem to have a long-term commitment to liberalize. They suggested that rapid liberalization may have made more political sense under the specific post-war circumstances of the Philippines where there are strong interests vested in continued protection (Shepherd and Alburo 1991:294).

The impediments to trade liberalization in the Philippines were explored by Bautista in 1989. He argued that on the domestic front, impediments to trade liberalization remain substantial. The country's political and economic problems are inextricably intertwined. Outside the government, opposition to trade liberalization comes from producer interests in the affected industries, that is, those faced with significant reductions in effective protection. But he believes that prospects for trade liberalization can be improved significantly if public opinion is informed of the heavy cost of protecting sectoral interests and subsidizing inefficient industries (Bautista 1989:71-72).

### 4.1 Philippine Performance In Agricultural Foreign Trade

Agricultural exports increased from 1990 to 2000 as shown in Table 5. Agricultural imports, on the other hand, kept pace with exports until 1994 when a deficit was incurred. Up to the present, the agricultural trade balance has not picked up. There is a declining trend in the share of agricultural exports to total exports. This is mostly due to increasing manufactured product and electronic exports. The share of agricultural imports to total imports is also decreasing, it was 7.5% in 1998 but stood at 9% in 1999.

Year	Exports Agri Products	Exports Total	Exports % Share	Imports Agri Products	Total	% Share	Trade balance Agri Products	Total
1990	1,701	8,186	20.8	1,555	12,206	12.7	146	-4,020
1991	1,850	8,840	20.9	1,259	12,052	10.4	586	-3,212
1992	1,854	9,826	18.9	1,560	14,522	10.7	294	-4,696
1993	1,918	11,378	16.9	1,626	17,600	9.2	292	-6,222
1994	2,072	13,483	15.4	2,114	21,333	9.9	-42	-7,850
1995	2,499	17,447	14.3	2,649	26,538	10.0	-150	-9,090
1996	2,307	20,543	11.2	3,096	32,427	9.6	-789	-11,884
1997	2,338	25,216	9.3	3,102	35,942	8.6	-764	-10,726
1998	2,225	27,878	8.0	2,895	38,853	7.5	-670	-10,975
1999	1,760	35,032	5.0	2,878	30,742	9.4	-1,118	4,290
2000*	1,906	38,078	5.0	2,386	31,386	7.6	-481	6,692

Table 8. Philippine Merchandise Trade Profile, 1990-2000 (US \$million)

\*Preliminary estimate

Source: National Statistics Office (NSO)

### 4.2 Trade Liberalization in Rice

The Philippines has temporarily excluded tariff reductions on rice under the ASEAN Free Trade Association (AFTA) Common Effective Preferential Tariff (CEPT) scheme. The minimum import quotas for rice under the minimum access value (MAV) have been set at levels below the normal import volume of the Philippines. In the initial year of implementation, the minimum quota is equivalent to only 1% of the country's average annual rice consumption during the 1986-1988 period. Under the MAV the tariff for rice is 50%. However, before the private sector was allowed to participate in rice imports in early 1999 the 50% tariff became inoperative for the reason that the NFA had

the exclusive right to import rice at zero tariff. For food security reasons, the NFA can also import in excess of the MAV quota also free of duty.

Table 9. Minimum Access Volume (MAV) for rice under the WTO, the Philippines, 1995-2004.

Implementation Period	Initial Quota	Initial Tariff	Final Quota	Final Tariff
1995-1999	59,730 mt	50%	119,460 mt	50%
1995-2004	119,460 mt	50%	238,940 mt	50%

Source: Department of Agriculture, 1994 adapted from Mangabat, 1999 p.69

The country is also not committed to the reduction of domestic subsidies because the aggregate measures of support (AMS) for government expenditures on fertilizer subsidy, certified seeds and planting materials, and price support for rice, corn, coconut and sugar fall below the maximum allowable level of 10% of the total value of production for developing countries.

# 4.3 Impact Studies

A number of impact studies have been made on trade liberalization and its effects on agriculture in the Philippines. Two studies were undertaken by Mangabat (1998,1999) for the Coarse Grains, Pulses, Roots and Tubers (CGPRT) Centre in Indonesia on the effects of trade liberalization on agriculture in the Philippines. The first study focused on the institutional and structural aspects in which she reported the production trends and issues in agricultural trade liberalization on crops and other commodities, among them rice. She explored the implications of the proposed rice tarrification –the pros and cons – and she pointed out that an assessment study of the Department of Agriculture on WTO impact on rice farmers revealed that it has *neutral effects* (Mangabat, 1998:72). In another study made in 1999, the focus was the commodity aspects in which she discussed in length the impact of trade liberalization on the rice sector. Using regression analysis of supply, demand and price linkages, she was able to present the national impact of trade liberalization accounting for two scenarios. The first scenario is from zero to 50% tariff depicting the period whereby NFA had the monopoly to import rice free of duty until 1999 when the private sector was allowed to import the minimum access volume at 50% tariff. The zero tariff is the duty free import of NFA and the 50% applies to private sector imports of the minimum access volume [MAV]. The second scenario is an increase in tariff to 200% after the 10-year period of tariff deferment for rice. This scenario stimulates the period in 2004 when rice tariffication would have started. Using 1997 as the base period, the results of the study show that domestic prices and production will increase. However, domestic demand will decrease as a result of increases in wholesale prices. In terms of welfare effects, domestic producers will benefit while consumers will lose. The losses exceed the benefits, which will result in net losses to the economy. This implies that while the increases in tariff will protect domestic paddy producers temporarily, it is not in the best interest of the economy as this results in an overall welfare loss (Mangabat, 1999:54).

In terms of effects on costs and returns, Mangabat (1999:20) showed that the gross returns per hectare will increase by 1.75% for a zero to 50% tariff, and by 7.14% for zero to 200% tariff. The net profit-cost ratio increases by about 9.5% at 50% tariff and by 42.86% at 200% tariff (see Annex Table 11).

She also proceeded to show the regional and farm level analyses in which her study area were Central Luzon region (the acknowledged rice bowl) and the province of Nueva Ecija, for the analysis at the farm level. The directions of prices, quantities, and surpluses are similar with those in the national level analysis. In contrast, however, producer surplus exceeds consumer losses, which means a positive net welfare effect to the regional economy. Central Luzon is a rice surplus region and the Philippines is a net importer of rice. One of the implications is that the cost of protection is high where there are more inefficient producers than efficient producers (*ibid*.).

#### 4.4 The International Competitiveness of Philippine Rice

The "relative position of competitiveness" of a certain country in the production and trade of a certain good has two dimensions. The first is comparative advantage, which indicates whether it is economically advantageous for a country to expand production and trade of a certain commodity. The second is competitive advantage, which indicates whether a country can successfully compete in the trading of a commodity in the international markets.

Ideally, in the world of perfect competition, perfect information, absence of government intervention and market failures, comparative and competitive advantage are expected to merge as one measure. However, distortions in domestic resource costs (DRCs), due to market failures, and government interventions cause the divergence of the two measures.

Both measures use the domestic resource cost (DRC) approach in estimating comparative and competitive advantage. However, the difference lies in the use of prices and exchange rates in the calculations of the domestic resource costs and resource cost ratios (RCRs). While competitive advantage employs financial prices (market) and official exchange rates (OERs) in DRC and RCR calculations, comparative advantage uses economic prices (shadow) and shadow exchange rates (SERs) in estimating DRC and RCR (Gonzales 1997:12).

Comparative advantage indicates relative efficiency in the production of a particular good or commodity. This tells whether it is permissible for a country to expand production or trade of a particular activity or commodity. On the other hand, competitive advantage refers to the comparative efficiency between countries. This indicator pinpoints what countries could penetrate and best compete in the world market.

Gonzales (1997) computed both the comparative and competitive advantage for rice in the Philippines. Assuming two trade regimes –one on export promotion and the other, the domestic production of rice for import substitution –his analysis showed that regardless of the level of technology and seasons, and given the cost structure, yield levels, border prices and the quality of rice being produced to that date, the Philippines has no competitive nor comparative advantage in domestically producing rice for export.

A major reason for this export non-competitiveness is the high per unit cost of producing rice in the Philippines (see Annex Table 12).

# 4.5 Degree of Protection of the Rice Sector

The degree of protection or disprotection accorded a certain industry can be determined through different measures of protection rates. The nominal protection rate (NPR) measures the effect of commodity specific policies on their domestic prices. The effective protection rate<sup>11</sup> (EPR), on the other hand, measures the combined effects of output and input price policies on the value added of rice production. Since the effective protection rate includes inputs, it is generally viewed as a more encompassing measure of the structure of protection. The net effective protection rate (NEPR) reflects the effect of exchange rate distortions (ERD) on rice value added.

A study by David and Balisacan (1995) found increasing nominal protection rate (NPR) for rice which suggests either a growing protectionism or simply a means to insulate rice farmers from low world prices. The same study also reveals higher protection rates for agricultural inputs such as fertilizer, pesticides and farm machinery, which result in mostly low or negative EPR. The trade reforms in the 1980s resulted in declining negative NPRs for these imputs, leading to a small positive effective protection rate (EPR) for rice in the early 1990s. Distortion in the exchange rates as shown by the negative NEPRs for rice was found to be another major source of bias against incentives to increase rice production (see Table 10).

<sup>&</sup>lt;sup>11</sup> Effective protection rate for a commodity is the ratio of value added in domestic prices to value added in border prices multiplied by 100.

Table 10. Nominal protection rates of rice outputs and inputs, degree of exchange rate distortion (ERD), and effective (EPR) and net effective protection rates (NEPR), Philippines, 1970-1994 (%).

	1970-74	1975-1979	1980-1984	1985-1989	1990-1994
NPR*	3				
Rice	-1	-11	-8	11	25
Urea	-13	28	21	11	16
Pesticides	29	35	35	20	12
Tractors					
2- wheel	21	46	46	30	28
4- wheel	21	24	24	10	10
Threshers	24	24	24	30	28
EPR	-3	-18	-15	-10	6
EDR	-20	-27	-27	-27	-36
NEPR	-23	-45	-42	-37	-30

\*For rice, NPR is the percentage difference between domestic wholesale price and Thai 35% brokens FOB Bangkok raised by 20% to adjust for cost of insurance and freight; for urea this is the percentage difference between the ex-warehouse price and CIF import unit value raised by 5% to adjust for domestic transport cost. NPRs for other inputs are based on book tariff rates; from 1970-1984 this also includes an advance sales tax (10% and 25% mark-up that was abolished in 1986).

Source: David and Balisacan (1995)as adopted from Mangabat 1999 p.12

#### CHAPTER V

### POLITICAL ECONOMY OF RICE TRADE LIBERALIZATION

The liberalization of trade in rice is bound to induce significant changes to the Philippine economy. First and foremost, rice imports that come to the country will gradually be undertaken by the private traders, not just the National Food Authority. These imports will be slapped with tariff rates, but there's no more restriction on how much will be imported. The holders of import licenses are bound to gain from this exercise, profits from importation will accrue to them.

The major stakeholders in the forthcoming trade liberalization in rice are the government, the farmers, farmers resistance movements which represent their interests; the traders, the industrialists and the consumers. We turn first to the government. It is hardly homogeneous, but it has the instruments for carrying out its goals and also for accommodating the interests of the different interest groups. It is not going to push through with trade liberalization when there is a strong opposition to it. On the other hand, the government has been exhausting its resources in trying to shield the producers and consumers from the realities of market conditions. Continuing to provide price supports to the producers and subsidizing consumer prices is just costly and not viable so, it is on the verge of making an important decision.

The producers are going to face intense competition. For one, rice coming from abroad is way cheaper than they could produce it. They would hardly be able to compete. But we have to bear in mind that there are three kinds of producers, the deficit producers whose harvests are not enough so that they become net buyers in the market, the surplus producers who become net sellers, and those in between who strike a balance between production and consumption. The deficit producers would surely benefit from cheaper rice while the surplus producers would lose.

The traders seem poised to gain from trade liberalization. They can acquire cheap rice from abroad, much cheaper than the domestically produced one. Even though they

have to pay import duties, imported rice would still come out fifty percent (50%) cheaper. The only thing to make sure of is to get the import license. This is where rent-seeking activities would take place, where the traders use their resources to get access to the import licenses.

Prospects for the millers are not so bright. They stand to lose some money as imported rice comes in its milled form, not requiring their services. But rice millers can shift their milling activities –instead of milling rice, they can venture into milling corn. This requires government intervention and support, though. The rice millers can also become traders –wholesaling or retailing or combining both. We have to bear in mind though, that the corn industry has also been liberalized so, the millers are going to face tough times unless they would lobby for support to have a representative of their interests in Congress.

Since consumers of rice are differentiated, the impact of trade liberalization will also be differentiated. The richer urban consumers will be able to eat different varieties of imported rice so they stand to gain the most from trade liberalization. On the other hand, the bulk of the population eat local varieties of rice so, when cheaper rice coming from abroad enters the market, they may end up substituting the cheaper-priced rice for the local ones.

Alburo (1993:133) maintains that consumer groups have never constituted a force in the course of liberalizing foreign trade in the Philippines. She argues that this is because, as with all other cases, benefits from liberalization are so widely spread among consumers that no organizing mechanism becomes possible.

The industrialists would be in favor of trade liberalization. It would mean lower labor cost for them and cheaper inputs. But those industries which benefited from protection of the rice sector in the past would come against trade liberalization.

The organized labour groups in the cities are going to support the peasants/farmers groups despite the fact that they stand to benefit from trade liberalization, in the form of

cheaper food prices. This is expected to occur as there is a long history of solidarity between the peasants and the urban working group. More than that, liberalization would lead to cheaper inputs and may lead to lost jobs for these urban labourers.

In the impending trade liberalization in rice, active lobbying will be expected from the industrialists as well as the farmers' groups. The net sellers of rice, along with the organized labour groups in the urban areas will tend to exaggerate their injuries arising from trade liberalization. These interest groups will push for a delay or postponement in the lifting of quantitative restrictions on rice imports yet again. It is the millers who seem to be the most vulnerable in this policy shift, and they should be the ones lobbying the most. But milling is a capital-intensive activity so it is not likely to gain supporters.

Eduardo Tadem (1985) in his book, "Grains and Radicalism: The Political Economy of the Philippine Rice Industry, 1965-85" came to the conclusion that twenty years of the rice industry have brought changes that have "revolutionized" production modes and reformatted social configurations in rural Philippines. These transformations, however, have not eased social tensions; on the contrary, they have rendered these conflicts more acute. On the forefront of these transformations is the Green Revolution which, through the introduction of modern technology, restructured mostly the farming of rice and displaced the peasant constituency. He maintains that for Philippine farming in general, and rice farming in particular, individualized production utilizing family or marginally-hired labor is losing its importance.

Whether the lifting of quantitative restrictions will be accompanied with lifting of price supports is almost certain. The government must draw up a plan for the rice sector – to rehabilitate it in order to reclaim its comparative advantage or sacrifice it and specialize in the production of another crop. The lifting of quantitative restrictions is not going to happen until 2004 yet so the government has some time to thoroughly examine and hopefully draw appropriate policies for the rice sector to prepare it for the eventual trade liberalization.

# CHAPTER VI CONCLUSION AND POLICY IMPLICATIONS

This final chapter will present the main conclusions from the earlier discussions. Policy implications of the forthcoming rice trade liberalization will be explored in the light of present government policy towards the agricultural sector, the rice sector in particular.

#### 6.1 Conclusion

The impending liberalization of the Philippine rice trade will be problematic, and to say that it will not be a smooth process is an understatement. Interest groups will exert their influence forcefully however and whenever possible. Farmers, represented by farmers' movements will almost certainly be the first to react, and they will be supported by urban organized labour. They will oppose it strongly because they see it threatening their interests. Industrialists will be in favour of it, though manufacturers who continue to enjoy protection will not. The government will therefore have to struggle to find a balance between complying with its commitments to the international trading system and delivering its primary duty for which it was elected —providing welfare to its people. Until a concrete picture emerges, it seems unlikely that the government will be serious in supporting the agriculture sector, the latter could well becomes a source of political unrest and instability that could shatter all efforts at achieving growth and development.

Alburo (1991:165-169) offers suggestions on what might lead to the sustainability of trade liberalization schemes or prevent their failure. Of technical importance is its acceptance as an integral part of an overall package of structural reform and not as an isolated task of freeing imports and exports from bureaucratic restrictions. Ignoring the simultaneous pursuit of other economic policies will definitely limit a liberalization policy's sustainability. Another important factor in the sustainability of trade liberalization is the set of adjustment measures taken to cushion its initial negative effects. These range from foreign exchange requirements to support possible import surges to temporary employment programs. The extent to which these adjustment measures are availed of depends on the success of the liberalization itself. Indeed there may be no need for them if the policy strategy is effective.

In terms of the details of implementing trade liberalization, it may be important to pay attention to timing and sequencing issues. If the program is liberalization of import restrictions, as the case of rice, some principle has to be followed in the order by which products are to be liberalized. For example, inputs have to be removed from the restrictive list first before outputs. And since exports are competing abroad, they also should be ahead in the liberalization process. But this will hold true only if there is a phasing of the liberalization, but not if the policy is immediate.

What seems to be politically paramount to sustaining trade liberalization is the political expediency of the policy. For instance it was easy for the early Marcos era (1966) to continue liberalization but at the same time begin his own program of economic policies (e.g. rice and roads, increasing fiscal deficit) without understanding the need to maintain consistency between the two. Marcos received opposition from Congress which had viewed the industries and capital idled by decontrol (early 1960s) to be a waste of resources. He carried it as a political agenda (having been made the opposition candidate after losing the nomination to re-electionist Macapagal).

Combining technical and political dimensions, sustaining trade liberalization requires explicit transparency in the debate and policy decisions. When pursued in the light of a strong political leadership, sustainability appears to be half-attained.

Finally it is important that any liberalization policy is perceived to be an indigenous decision, arrived at by Filipino policymakers and a Filipino political system. The extent to which there is prodding by multilateral or bilateral partners dilutes the

potential sustainability of trade liberalization. Constituency formation is behind the reason for a decision formed out of own understanding of the economic problems. Congruency can be admitted but attribution must be national.

Once trade liberalization becomes effective (in the sense that restrictions are eliminated) sustaining it becomes a more telling task. For one thing, losers will emphasize their injuries, gainers will minimize their profits and the debate will be reopened. For another, lobbying will intensify aiming to reverse the policy, delay it or terminate it. And then as short-term costs and injuries are magnified, long-term benefits become hazy, improvements speculative and its constituency can erode.

In the end, sustaining trade liberalization and reforms in the Philippines will involve a trade-off among the various interest groups, between short-term and long-term and between comparative advantage (both actual and potential) and self-sufficiency. Sorting out these issues is an economic matter. Adjusting through them and arriving at concrete policy decisions are a political matter. These things need to be considered if trade liberalization is to be conceived, implemented and sustained.

# 6.2 The Long-term Implications for the Rice Sector

An important factor to consider is what the government has planned for the rice sector in the event of trade liberalization. Does the government plan to rehabilitate and regain the Philippines' comparative advantage in rice production or is it willing to sacrifice the small peasant farmers and specialize in another crop?

The prospects are not hopeful. The government has repeatedly claimed that it supports agriculture but policies remain bias towards manufacturing and industry, and more so with services. Many agricultural lands are being converted to non-agricultural uses. For the entire Philippines, 40,644 hectares of agricultural land (0.5 percent of total cropland) were legally converted to non-agricultural uses between 1988 and 1993. If

illegal and unreported conversions are also considered, the total converted area could increase by 50 percent. These lands were mainly converted to industrial and residential estates, which commanded the highest price. Some agricultural lands were also converted for tourism.

For the nation as a whole the best estimate for riceland conversion is 15,000 to 20,000 hectares per year, only 0.6 percent of the total riceland. If a national figure of 20,000 hectares of riceland converted to non-rice activities and an average yield of 4 t ha<sup>-1</sup> for the wet season and 5 t ha<sup>-1</sup> for the dry season is assumed, then the annual decline in rice production is about 180,000 tons. This is about 2 percent of the total rice production per year in the Philippines. While the area converted may be proportionately small, the loss in production is significant because the conversions have occurred in mainly high-yield-potential, irrigated areas that are the main suppliers of rice for urban consumers (Pingali et al. 1997: 193).

Rice areas converted to residential sites command a much higher displacement compensation than areas converted to industrial sites. A mean displacement compensation of US\$38,840 per hectare of area converted to residential sites was paid to farmers who owned or tilled the land compared to US\$8,480 for lands converted to industrial sites.

The latest program of the government for the agriculture and fisheries sector springs off from the Agriculture and Fisheries Modernization Act (AFMA) of 1997, a comprehensive legislation that provides for the country's blueprint for the sector's modernization and rural development. It defines the necessary policy environment and deliberate public investment stream that will transform the rural economy into one that is modern, science and technology-based, more integrated into the national and international markets, and thus highly productive and competitive.

The new banner program for agricultural development shall be known as Agrikulturang MakaMASA to reflect its preferential option for one of the poorest, often

48

neglected segments of the population -the farmers and fisherfolks who will be empowered to enhance their productivity and competitiveness in the global market.

The new program takes off from the Gintong Ani Program, and will implement the latter's uncompleted but feasible components. The Agrikulturang MakaMASA Program shall take its own shape with the implementation of the Agriculture and Fisheries Modernization Act (AFMA) by mid-1999.

The goals of the Agrikulturang MakaMASA Rice Program are 1) to attain national food security at all times, 2) reduce poverty incidence in the rural areas, 3) increase net farm income, 4) ensure the sustainability of the natural resource base, and 5) enhance people empowerment.

The Agrikulturang MakaMASA Rice Program: Year 2000 rises to the challenges of globalization by 1) increasing total rice production to 12.5 million metric tons, 2) raising the yield of rice in irrigated areas from the 1999 average of 3.5 metric tons per hectare to 3.85 metric tons per hectare, 3) improving net farm income from palay production to an average of P10,270 per hectarefor the wet season crop and P12,397 for the dry season crop, and 4) stabilizing the prices of palay and rice at levels equitable to producers and consumers.

To attain these objectives, the Rice Program adopts the following framework for action to further support the vision of having a productive, profitable and competitive rice sector:

- Focusing on areas with high comparative advantage for rice production (i.e. fully irrigated, with available certified seeds, presence of post-harvest facilities, with appropriate technologies, etc.
- Promoting technologies that would potentially increase yield by 1.0 metric ton per hectare over the previous yield.

- Building the capacities of agricultural technologists by enabling them to provide proper and timely advice to farmers whenever and wherever necessary –thereby making the agricultural technologists the primary vehicle for technology promotion.
- Transforming subsistence farming into a viable enterprise.
- Optimizing use of resources through equitable sharing of program funds with the stakeholders providing counterpart funding particularly in infrastructure projects.
- Simultaneously, rural finance institutions would be strengthened to support program interventions.

At present, the government has not done much legwork with its modernization scheme. It cannot be denied that some policies conflict with each other, basically because the country wants to meet the demands of the new world trade regime at the same time as meet the food requirements of its people. We see that it is redirecting agriculture from the production of staple crops like rice and corn to high value export crops like banana, eucalyptus and cut flowers. Not only that, there is also an increasing number of conversion from the cultivation of milkfish for domestic food consumption to shrimp production, which commands a high price in the export markets. The result of this is loss of riceland due to conversion into, or salinisation by shrimp ponds.

Economics says that resources should work for where they are most efficient. In the case of the Philippines, to produce rice for the international market is out of the question. Philippine producers would barely be able to compete with the others. But efficiency is not the only consideration here, for there are strong interests vested in the continued protection of the rice sector for food security and for politico-economic reasons as well. Economics can only tell what should be done but politics determines how it is to be done. Sometimes politics does not get it done at all. It's not surprising, because politicians and bureaucrats are, after all, rational economic agents. And so are the rest of the interest groups who have a stake in the impending rice trade liberalization in the Philippines.

#### BIBLIOGRAPHY

Ahmad, Q.K., M. Asaduzzaman and S.A. Hye. 1982. Socio-cultural and Economic Factors in Food Production and Its Marketing by Small Farmers in Bangladesh. Division for the Study of Development, UNESCO, Paris.

Alburo, Florian. 1993. "Political Economy of Liberalizing Foreign Trade: Philippine Experiences". *Philippine Review of Economics and Business*. Volume XXX No.1, June 1993.

Alburo, Florian. 1992. "Sustaining Trade Liberalization and Reforms in the Philippines". *Philippine Review of Economics and Business*. Volume XXVIII, No.2, December 1991.

Alburo, Florian and Geoffrey Shephard. 1985. "Trade Liberalization Experience in the Philippines, 1960-84" (Working Paper No. 86-01) Philippine Institute of Development Studies (PIDS) Manila.

Asia Pacific Economic Cooperation (APEC). 1996. Selected APEC Documents. APEC Secretariat, Singapore.

Baldwin, Robert E. 1984. "Trade Policies in Developed Countries" Handbook of International Economics Vol.I, Edited by R.W. Jones and P.B.Kenen, Elsevier Science Publishers B.V., Amsterdam.

Bates, Robert. 1983. Essays on the Political Economy of Rural Africa. Cambridge University Press, Cambridge, UK.

Bautista, Romeo M. 1989. Impediments to Trade Liberalization in the Philippines. Thames Essay No. 54. Gower Publishing Company Limited, UK, US and Australia for the Trade Policy Research Centre, London, UK.

Bello, Walden and Jenina Joy Chavez-Malalauan (eds.) 1996. APEC: Four Adjectives in Search of a Noun. Manila People's Forum on APEC. Manila, Philippines.

Bureau of Agricultural Statistics. 1990-2000. Selected Statistics on Agriculture. Department of Agriculture, Quezon City, Philippines.

Corden, W. Max. 1987. Protection and Liberalization: A Review of Analytical Issues. International Monetary Fund Occasional Paper No.54, Washington, D.C., USA.

David, Cristina C. 1989. "Philippines: Price Policy in Transition" in Sicular, Terry (ed.). Food Price Policy in Asia: A Comparative Study. Ithaca and London: Cornell University Press.

David, Cristina C. and Balisacan, Arsenio. 1995. Philippine Rice Supply Demand: Prospects and Policy Implications. Journal of Philippine Development 22(2):223-263.

Davidson, Brian (Dr.) and Nanette Esparon. 1999. "The Asia-Pacific Rice Trade: A preliminary investigation of the issues". Paper presented to the 43<sup>rd</sup> Annual Conference of the Australian Agricultural and Resource Economics Society, Christchurch, NZ, January 20-22, 1999.

De Dios, Emmanuel S. 1999. "Executive-Legislative Relations in the Philippines: Continuity and Change" in Institutions and Economic Change in Southeast Asia. Edited by Colin Barlow. Edward Elgar Publishing, UK and US.

El-Agraa, Ali M. 1997. Economic Integration Worldwide. MacMillan Press Ltd, United Kingdom.

Finger, J. Michael, Merlinda D. Ingco and Ulrich Reincke. 1996. The Uruguay Round: Statistics on Tariff Concessions Given and Received. World Bank, Washington, D.C., USA.

Gabriel-Padre, Elizabeth. 2000. "The Impact of Trade Liberalization Policies on the Philippine Corn Industry". Institute of Social Studies, The Hague, The Netherlands. Unpublished Masters Thesis.

Geiger, Till and Dennis Kennedy (eds.) 1996. Regional Trade Blocs, Multilateralism and the GATT: Complementary Paths to Free Trade? PINTER A Cassell Imprint, London and New York.

Goldin, Ian (ed.). 1993. Economic Reform, Trade and Agricultural Development. St. Martin's Press, Inc., New York, USA.

Goldin, Ian and Odin Knudsen (eds.) 1990. Agricultural Trade Liberalization: Implications for Developing Countries. Organisation for Economic Co-operation and Development (OECD), Paris and The World Bank, Washington, DC.

Goldin, Ian and Dominique van der Mensbrugghe. 1992. Trade Liberalization: What's at Stake? OECD Development Centre, Policy Brief No.5, OECD, Paris, France.

Gonzales, Leonardo A. 1997. "The Global Rice Industry" Paper presented during the R & D Productivity Symposium and Rice Varietal Improvement Program Workshop, July 30-31 1997, PhilRice, Nueva Ecija, Philippines.

Habito, Cielito F. 1990. Trade Liberalization and Philippine Agriculture. Taipei City: ASPAC Food and Fertilizer Technology Center, Extension Bulletin No.323

Hayami, Y., M. Kikuchi, E.B. Marciano. 1999. "Middlemen and Peasants in Rice Marketing in the Philippines". *Agricultural Economics* 20 (1999) 79-93. Elsevier Science B.V. Amsterdam.

52

Intal, Ponciano Jr. and John H. Power. 1991. "The Philippines" in The Political Economy of Agricultural Pricing Policy. Volume 2 Asia. Krueger, Anne, Maurice Schiff and Alberto Valdés (eds.). The Johns Hopkins University Press, Baltimore and London for the World Bank.

Kitson, Michael and Jonathan Michie. 2000. The Political Economy of Competitiveness: Essays on Employment, Public Policy and Corporate Performance. Routledge Contemporary Political Economy Series, London and New York.

Kraemer, Moritz. 1995. The Political Economy of Trade Reform in Mexico, 1982-1988. Ibero-America Institute for Economic Research (IAI), Georg-August-Universität Göttingen, Göttingen, Germany.

Krueger, Anne O. 1984. Trade Policies in Developing Countries. Handbook of International Economics, Vol. I. Edited by R.W. Jones and P.B. Kenen. Elsevier Science Publishers B.V., Amsterdam.

Krueger, Anne, Maurice Schiff and Alberto Valdés (eds.). 1991. The Political Economy of Agricultural Pricing Policy. Volume 2 Asia. The Johns Hopkins University Press, Baltimore and London for the World Bank.

Mangabat, Minda C. 1998. Effects of Trade Liberalization on Agriculture in the Philippines: Institutional and Structural Aspects. CGPRT Centre Working Paper 37, Bogor, Indonesia.

Mangabat, Minda C. 1999. Effects of Trade Liberalization on Agriculture in the Philippines: Commodity Aspects. CGPRT Centre Working Paper 51, Bogor, Indonesia.

Mangahas, Mahar. The Political Economy of Rice in the New Society. 1974. University of the Philippines School of Economics, Diliman, Quezon City, Philippines.

Martin, Will and L. Alan Winters (eds.). 1995. The Uruguay Round and the Developing Economies. World Bank Discussion Papers. World Bank, Washington, DC.

McKibbin, Warwick. 1997. Regional and Multilateral Trade Liberalization: the Effects on Trade, Investment and Welfare. Paper presented at the United States International Trade Commission APEC Symposium, Washington, September 11-12, 1997.

National Statistics Coordination Board. 1990-2000. Various Agricultural Statistics. Manila, Philippines.

Oxley, Alan. First Semester 1996. "Achieving Effective Trade Liberalization in APEC: the Limitations of Open Regionalism". *Journal of Philippine Development* Number 41, Volume 23 No. 1

Papageorgiou, Demetris, Armeane M. Choksi and Michael Michaely. 1990. Liberalizing Foreign Trade in Developing Countries: The Lessons of Experience. The World Bank, Washington, DC.

Papageorgiou, Demetris, Michael Michaely, Armeane M. Choksi. 1991. Liberalizing Foreign Trade Volume 2. The Experience of Korea, the Philippines and Singapore. Basil Blackwell, Cambridge, Mass., USA and Oxford, UK for the World Bank.

Pingali, Prabhu, Mahabub Hossain and Roberta V. Gerpacio. 1997. Asian Rice Bowls: The Returning Crisis?. Wallingford, CAB International.

Preeg, Ernest H. 1998. From Here to Free Trade: Essays in Post-Uruguay Round Trade Strategy. The University of Chicago Press, Chicago and London. Published in cooperation with the Center for Strategic and International Studies (CSIS), Washington.

Sardoni, Claudio and Peter Kriesler (eds.). 1999. Keynes, Post-Keynesianism and Political Economy. Essays in Honour of Geoff Harcourt. Routledge Frontiers of Political Economy, London and New York.

Singer, H.W. et al. 1990. Trade Liberalization in the 1990s. New World Order Series: Eight. Indus Publishing Company, New Delhi.

Singer, H.W. et al. 1991. Adjustment and Liberalization in the Third World. New World Order Series: Twelve. Indus Publishing Company, New Delhi.

Tadem, Eduardo C. 1986. Grains and Radicalism: The Political Economy of the Rice Industry in the Philippines, 1965-85. Third World Studies Center, University of the Philippines, Quezon City.

Takeuchi, Fumihide and Takehiko Hagino. Intersectoral Resource Allocation and its Impact on Economic Development in the Philippines. Japan Center for Economic Research.

http://www.worldbank.org/html/dec/Publications/Workpapers/WPS1800series/wps1883/wps1883.pdf

Timmer, C. Peter (ed.). 1991. Agriculture and the State: Growth, Employment and Poverty in Developing Countries. Cornell University Press, Ithaca and London.

Timmer, C. Peter, Walter Falcon and Scott Pearson. 1983. Food Policy Analysis. The Johns Hopkins University Press, Baltimore and London for the World Bank.

Todaro, Michael P. 2000. Economic Development. Seventh Edition. Addison Wesley Longman, Inc. An Imprint of Pearson Education Limited, Harlow, England.

Van der Geest, Willem (ed.).1991. Food Security: The Cereal Market Policy Model. A Non-technical Introduction. Queen Elizabeth House, University of Oxford, Oxford, UK. Watkins, Kevin. 1995. Agricultural Trade and Food Security. Oxfam United Kingdom and Ireland (Philippines), Quezon City, Philippines.

Web Sources: AGNET. The Prospects for Rice Farming in Asia. http://www.agnet.org/library/article/ac1993a.html#0

Food and Agriculture Organization (FAO). 1995. The Impact of the Uruguay Round on Agriculture. FAO, Rome. http://www.fao.org/waicent/faoinfo/economic/esc/escp/ura/urnet.htm

Food and Agriculture Organization. "The Rice Business". FAO Report. http://www.fao.org/docrep/x5427e/x5427e0i.htm#TopOfPage

Hossain, Mahabub. "Sustaining Food Security in Asia: Economic, Social and Political Aspects". The Pacific Basin Study Center, San Francisco State University, USA. http://www.thecity.sfsu.edu/~sustain/hossain.html

Hossain, Mahabub . The Politics of Rice. International Rice Research Institute. www.irri.org/Hunger/Politics.htm

Hossain, Mahabub. The Politics of Rice, Rice and Politics. International Rice Research Institute. www.irri.cgiar.org/Hunger/Politics-Riches.pdf

ISGN. "The Impact of Agricultural Trade Liberalization on the Agrarian and Pre-Industrial Economy of the Philippines" http://www.isgnweb.org/chap2.htm

Raghavan, Chakravarthi. 2000. Mexico: NAFTA Corn Liberalization Fails Farmers, Environment. Third World Network, Singapore. http://www.twnside.org.sg/title/mexico.htm

Roumasset, James. 2000. Black-Hole Security. Working Paper No.00-5, University of Hawaii, USA. http://www2.soc.hawaii.edu/econ/workingpapers/005.pdf

SAPRIN. The Impact of Agricultural Sector Liberalization on Food Security. http://www.saprin.org/philippines/philippines\_forum1.htm



# ANNEXES

Table 1. Percent Share Of Sub-Sectors In Agriculture Gross-Value Added, Philippines, Selected Years, 1970-2000

Commodity	1970	1975	1980	1985	1990	1995	2000
Agriculture	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sector							
a. Agriculture	81.2	81.7	82.8	79.4	79.9	80.2	81.0
Palay	19.8	18.8	15.5	17.1	16.2	16.5	17.5
Corn	7.2	6.9	6.3	7.2	7.1	5.7	5.7
Coconut	6.7	8.0	9.6	8.6	4.6	4.3	3.5
Sugarcane	8.0	9.1	4.2	2.9	2.4	2.3	2.6
Banana	7.5	7.8	3.2	2.7	1.0	1.6	1.9
Other crops	16.9	16.4	26.2	22.9	23.9	23.8	21.6
Livestock	10.1	9.6	7.8	8.3	11.0	11.6	13.1
Poultry	5.1	5.4	5.5	5.2	8.0	9.4	10.8
Agricultural	n.d.	n.d.	4.7	4.6	5.0	5.0	4.2
Services							
b. Fisheries	18.8	18.3	17.2	20.6	20.1	19.8	19.0

n.d. -no data available

Source: Bureau of Agricultural Statistics (BAS), Philippines.

Table 2. Percentage Shares of Sub-sectors in Total Agricultural Output, 1990 and 2000, Philippines

Sub-sector	1990	2000	
Fishery	19.63	19.19	
Poultry	11.18	14.57	
Livestock	12.87	14.08	

56

Crops	56.32	52.16
Palay	15.66	16.32
Corn	7.27	5.35
Coconut	6.97	7.75
Sugarcane	2.83	2.78
Banana	2.69	2.98
Other crops	20.90	16.98

Source: Bureau of Agricultural Statistics

Table 3. Rat	io Of Gross	Returns To	Total	Costs By (	Crop, P	hilippines,	1991, 19	95 and
1999								

Crop	1991	1995	1999	Average
Pineapple	4.92	3.11	5.08	4.37
Onion	2.92	2.56	3.60	3.03
Watermelon	4.51	6.66	3.11	4.76
Garlic	5.06	4.82	2.88	4.25
Cassava	0.17	4.99	2.70	2.62
Mongo	5.95	5.05	2.07	4.36
Cabbage	5.54	3.81	1.98	3.78
Tomato	4.42	3.33	1.78	3.18
Peanut	2.56	1.99	1.58	2.04
Eggplant	4.30	4.28	1.55	3.38
Yellow Corn	1.25	1.70	1.49	1.48
Papaya	10.51	9.07	1.34	6.97
Palay	1.33	1.26	1.14	1.24
White Corn	1.26	1.11	0.94	1.10

Source : Bureau of Agricultural Statistics (BAS)

Table 4. Average Farm Size And Landholding Distribution For Selected Agricultural Crops, Philippines, Various Years

Crop	Average F	arm Size (in h	a.)	Gini Coefficient			
	1960	1980	1991	1960	1991		
Philippines	3.6	2.8	2.2	0.53	0.57		
Palay	3.0	2.3	1.8	0.45	0.36		
Corn	2.5	2.6	2.0	0.50	0.34		
Sugar	14	8.9	7.2	0.83	0.81		
Tobacco	1.7	-	1.0	0.40	0.42		
Coconut	4.4	4.0	3.6	0.52	0.51		
Coffee	4.2	3.4	2.9	0.54	0.50		

Source: Balisacan, A. (1993)

Table 5, Fally Floudellon, Area Harvested And Fleid. Fillippines, 1960-200	Table 5	5. Palay	Production,	Area Harvested	And Yield:	Philippines,	1980-200
--	---------	----------	-------------	----------------	------------	--------------	----------

Year	Production	Area	Yield	Growth Rates (%)		
		Harvested				
	('000 MT)	('000 HA)	(MT/HA)	Production	Area	Yield
1980	7,647	3,471	2.2	-0.5	-2.0	1.4
1981	7,911	3,419	2.3	3.5	-1.5	5.0
1982	8,334	3,351	2.5	5.4	-2.0	7.8
1983	7,295	3,054	2.4	-12.5	-8.9	-4.0
1984	7,829	3,162	2.5	7.3	3.5	3.8
1985	8,806	3,307	2.7	12.5	4.6	7.3
1986	9,247	3,464	2.7	5.0	4.8	0.4
1987	8,540	3,256	2.6	-7.7	-6.0	-1.9
1988	8,971	3,393	2.6	5.1	4.2	0.8
1989	9,459	3,497	2.7	5.4	3.1	2.3
1990	9,319	3,319	2.8	-1.5	-5.1	4.1
1991	9,673	3,425	2.8	3.8	3.2	0.4
1992	9,129	3,198	2.9	-5.6	-6.6	1.1
1993	9,434	3,282	2.9	3.3	2.6	0.7
1994	10,538	3,652	2.9	11.7	11.3	0.7
1995	10,541	3,758	2.8	0	2.9	-3.1
1996	11,284	3,951	2.9	7.1	5.1	2.1
1997	11,269	3,842	2.9	-0.1	-2.8	2.5
1998	8,554	3,170	2.7	-24.1	-17.5	-7.9
1999	11,787	4,000	3.0	37.8	26.2	9.3
2000	12,389	4,039	3.1	5.1	1.0	4.1

Source: National Statistics Coordination Board.

Table 6	. Rice	Production	and Use.	Philippines,	1990-2000
---------	--------	------------	----------	--------------	-----------

Year	Beginning Stocks	Production	Imports	Exports	Total Supply (a)	Total Usage (b)	Ending Stocks (a-b)	Per Capita	Production Usage Gat
	('000 MT)	('000 MT)	('000 MT)	('000 MT)	('000 MT)	('000 MT)	(000 MT)	(Kg/Year)	('000 MT)
1990	1,689	6,095.00	593	0	8,337	6,478	1,899	97.2	-383
1991	1,899	6,326.00	0	10	8,215	6,098	2,117	88.5	228
1992	2,117	5,970.00	0	35	8,052	6,361	1,691	91.2	-391
1993	1,691	6,132.00	202	0	8,025	6,584	1,441	92.3	-452
1994	1,441	6,850.00	0	0	8,291	6,792	1,499	91.5	58
1995	1,499	6,851.00	263	0	8,613	7,191	1,422	94.3	-340
1996	1,422	7,334.00	862	0	9,618	7,821	1,797	99.9	-487
1997	1,797	7,325.00	722	0	9,844	7,868	1,976	97.8	-543
1998	1,976	5,560.00	2,171	0	9,707	7,423	2,284	91.7	-1,863
1999	2,284	7,662.00	834	0	10,780	8,425	2,355	99.1	-763
2000	2,355	8,053.00	617	0	11,025	8,837	2,188	103.0	-784
Sourc	e: Bureau	of Agricult	ural Stat	istics					

Table	7.	Paddy	Production	by	Region.	the	Philippines.	1998-	2000
				- 5					

Region	Production (volume in '000 MT)			Area Harvested (in '000 hectares)			Yield (MT/ha.)		
	2000	1999	1998	2000	1999	1998	2000	1999	1998
Philippines	12,389	11,787	8,554	4,038	4,000	3,170	3.1	3.0	2.7
CAR	256	221	167	85	75	71	3.0	3.0	2.4
Region 1	1,208	1,082	854	351	334	302	3.4	3.2.	2.8
Region 2	1,785	1,709	1,109	493	484	358	3.6	3.5	3.1
Region 3	1,888	1,843	1,309	530	528	429	3.6	3.5	3.1
Region 4	1,207	1,207	889	408	412	354	3.0	2.9	2.5
Region 5	672	720	493	290	302	229	2.3	2.4	2.2
Region 6	1,608	1,532	1,044	573	574	414	2.8	2.7	2.5
Region 7	215	208	116	101	97	53	2.1	2.1	2.2
Region 8	518	506	362	219	221	185	2.4	2.3	2.0
Region 9	448	326	264	154	129	101	2.9	2.5	2.6
Region 10	336	332	275	96	94	82	3.5	3.5	3.3
Region 11	710	681	561	205	215	172	3.5	3.2	3.3
Region 12	887	794	644	269	271	209	3.3	2.9	3.1
CARAGA	308	280	223	117	152	118	2.6	2.3	1.9
ARMM	343	345	240	148	112	95	2.3	2.5	2.5

Source: BAS and NSCB
Year	Farmgate	Wholesale*	Retail
1980	1.15	2.30	2.47
1981	1.30	2.65	2.72
1982	1.36	2.76	2.96
1983	1.52	2.99	3.19
1984	2.47	4.82	5.10
1985	3.24	6.51	7.00
1986	2.82	5.79	6.56
1987	2.99	5.84	6.61
1988	3.16	6.52	7.50
1989	4.01	7.82	8.41
1990	4.74	8.77	8.87
1991	4.77	9.08	9.97
1992	4.82	9.48	10.40
1993	5.40	10.78	11.88
1994	5.90	12.13	13.29
1995	7.24	15.04	16.47
1996	8.13	17.39	18.98
1997	7.97	16.89	18.53

Table 8. Domestic prices of rice (in pesos/ kilogram), the Philippines, 1980-1997.

Source: BAS as adopted from Mangabat 1998 p.68

\*Average wholesale prices in major trading areas in the country.

Table 9. Percentage Distribution of Total Family Expenditures By Major Expenditure Group: 1991, 1994, 1997 and 2000, Philippines

EXPENDITURE GROUP	1991	1994	1997	2000
Total Family Expenditures	622,616,202	863,008,317	1,412,677,414	1,821,234,264
(in thousand pesos)			2.1	* *
In Percent	100.0	100.0	100.0	100.0
Food	48.5	47.8	44.2	43.2
Food consumed at home	44.7	43.5	39.5	38.3
Food regularly consumed outside the home	3.8	4.2	4.7	4.9
Alcoholic beverages	1.0	0.9	0.9	0.7

Tobacco	1.7	1.4	1.3	1.1
Fuel, light and water	5.7	5.5	5.3	6.2
Transportation and communication	5.4	4.7	5.6	6.8
Household operations	2.7	2.6	2.3	2.4
Personal care and effects	3.3	3.2	3.3	3.6
Clothing, footwear and other wear	3.7	3.5	3.3	2.7
Education	3.0	3.7	3.7	4.2
Recreation	0.4	0.4	0.4	0.5
Medical care	1.8	2.3	2.2	1.9
Non-durable furnishings	2.4	3.1	0.3	0.2
Durable furniture and equipment	*	*	3.0	2.1
Rent/Rental value of dwelling unit	n.a.	n.a.	14.2	15.1
House maintenance and minor repairs	n.a.	n.a.	1.1	0.9
Taxes paid	1.4	1.4	2.5	2.2
Miscellaneous expenditures	3.4	3.6	3.4	3.3
- 0 1				
the family	2.4	2.6	2.4	2.4
<ul> <li>Special occasions of the family</li> <li>Gifts and contribution to others</li> </ul>	2.4	2.6	2.4	2.4 0.9

Source: Preliminary Results of 2000 Family Income and Expenditures Survey, National Statistics Office. \*Data for 1991 and 1994 has household furnishings and equipment lumped together.

.

Table 10. Rice Surplus (Or Deficit), Imports And Per Capita Consumption, The Philippines, 1990-1998

Year	Surplus (Deficit) (in metric	Imports (in metric	Per Capita
	tons)	tons)	Consumption (kg)
1990	(412,267)	592,727	97.66
1991	226,315	59	88.55
1992	(395,397)	639	91.13
1993	(458,551)	201,605	91.57
1994	58,636	164	92.89
1995	(330,239)	263,251	95.84
1996	(530,113)	862,385	102.93
1997	(552,642)	722,398	100.78
1998	(1,770,919)	2,170,834	93.11

Note: Surplus (deficit) is the difference between domestic production and total use, e.g. food, seed, and waste.

Source: Mangabat 1999 p.7

Table 11. Effects of Trade Liberalization on Paddy Production Costs and Returns (Pesos per Hectare), the Philippines.

Item	1997	Tariff	
		0-50%	0-200%
CASH COST	8,261	8,231	8,231
Seeds/planting materials	330	330	330
Fertilizers	1,228	1,207	1,207
Pesticides	503	503	503
Hired labor	4,891	4,891	4,891
Irrigation fee	209	209	209
Land tax	83	83	83
Rentals:			

Tools and	15	15	15
equipment			
Machine	91	82	82
Animal	39	39	39
Land	156	156	156
Fuel and oil	160	160	160
Interest payment on	218	218	218
crop loan			
Food expense	274	274	274
Transport expense	264	64	64
NON-CASH COST	5,248	5,248	5,248
Seeds/planting	680	680	680
materials			
Landlord's share	1,235	1,235	1,235
Harvester's share	1,284	1,284	1,284
Thresher's share	911	911	911
Hired labor paid in	204	204	204
kind			
Lease rental	687	687	687
Irrigation fee	211	211	211
Fuel and oil	36	36	36
IMPUTED COST	6,110	6,110	6,110
Operator/family	2,974	2,974	2,974
labor			
Exchange labor	126	126	126
Depreciation	977	977	977
Interest on operating	1,112	1,112	1,112
capital			
Rental value of	921	921	921
owned land			

ALL COSTS	19,619	19,584	19,584
GROSS RETURNS	23,708	24,124	25,402
RETURNS ABOVE	15,447	15,893	17,171
CASH COST			
RETURNS ABOVE	10,200	10,646	11,924
CASH AND NON-			
CASH COST			
RETURNS ABOVE	4,089	4,536	5,814
ALL COSTS (NET			
RETURNS)			
NET PROFIT-	0.21	0.23	0.30
COST RATIO			the second second
Cost per kilogram	6.6	6.59	6.59
(pesos)			
Yield per hectare	2,971	2,971	2,971
(kg)			
Value per kilogram	7.98	7.98	8.55
(pesos)			

Source: Mangabat 1999 p.20

Table 12. Rice Yield and Unit Costs of Production for Selected Asian Countries

COUNTRY	SEASON/TYPE	Rice	COST OF	PRODUCTION
		Yield	(US \$)	
		(mt/ha)		
			Per	Per Ton of
			Hectare of	Output
			Land	
Korea, Rep.	Irrigated	6.50	4,348	669
Japan	Irrigated	6.51	12,931	1,987
China	Early season, Indica	5.34	416	78
	Middle season, Indica	6.49	399	62

	Japonica	6.58	513	78
Vietnam	Autumn	3.80	353	93
	Spring	5.35	333	62
Indonesia	Irrigated	5.76	474	82
	Rainfed	3.57	389	109
Thailand	Irrigated	3.78	369	98
	Rainfed	1.84	223	121
Philippines	Irrigated			
	Wet season, low technology	2.19	508	232
×	Wet season, high technology	4.17	838	201
	Dry season, low technology	2.09	522	250
	Dry season, high technology	4.03	824	204

Source: Gonzales 1997 p.58

Figure A. Marketing Channels of Paddy/Rice (adopted from Mangabat 1999)

Legend: \_\_\_\_\_Paddy ------Rice

