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NIGHTMARE IN A SPOONFUL OF SUGAR

A study on the impact of liberalisation of the sugar industry on consumers in Indonesia

Report prepared by

Yayasan Lembaga Konsumen Indonesia (YLKI)
for Consumers International

The views contained in this report are those of the author and do not necessarily reflect those of Consumers International, their officials or their members.

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Nightmare In A Spoonful of Sugar

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Preface

In desperate times, distressed parties often agree to onerous conditions in return for help. These conditions can result in even greater distress.

The Asian financial crisis of 1997 and 1998 wrought severe economic calamity in Indonesia. The Government of Indonesia had little choice but to agree to the conditionalities imposed by the IMF in return for assistance to tide over the crisis. It grudgingly opened its markets and hastily relinquished its support for and role in the production and distribution of sugar in Indonesia.

The IMF sought to reverse the old government policy of self-reliance in sugar production and remove the state from the business of production and distribution of sugar. Competition, it was believed, would boost production efficiency that will benefit consumers.

The removal of government supervision and the diminished role of its buffer stock agency, the National Logistics Agency (BULOG), led farmers to stop planting sugarcane and factories to stop producing sugar. Indonesia, a nation of 200 million consumers, almost immediately became import-dependant for its sugar needs. Within three years, sugar import had doubled from 975,000 tons in 1996 to some 1.95 million tons in 1999.

As in most hasty and haphazardly instituted policies, the liberalisation of the sugar market in Indonesia created opportunities for the unscrupulous. Hoarding and smuggling proliferated, leading to artificial shortages. Importers, wholesalers and retailers profited handsomely, local sugarcane farmers were driven destitute and consumers in many regions paid higher prices, or worse, were denied supply of sugar.

The case study highlights the perils posed by the hasty and poorly sequenced implementation of the structural adjustment policies imposed by the IMF. We hope that the publication will raise awareness amongst consumers and policy makers and lead to an amendment of the relevant policies.

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May 2005

Executive Summary

1. This case study seeks to identify and analyze the implications of structural adjustments imposed by the International Monetary Fund (IMF) and the rules of the Agreement on Agriculture (AoA) under the World Trade Organisation (WTO) on sugar supply and trade in Indonesia. In addition it examines how these affect consumers' access to sugar both in terms of availability and affordability.
2. The sugar industry began during the Dutch Colonial era and reached its highest output levels in the period between 1930 and 1940. However, Indonesia has long been a net importer of sugar. This is despite the adoption of the National Program of *Tebu Rakyat Intensifikasi* (TRI) in 1975, which was designed to spur the country to reach a state of self-reliance in sugar production.
3. More and more sugar had to be imported over the years as the country's growing population consumed increasing amounts of the commodity. The rise in demand was not adequately reciprocated on the supply side. The industry had yet to see enough effort to integrate sugar farming and sugar processing efficiently. The absence of sufficient financial and non-financial incentives for farmers hastened the decline in acreage of farmland planted with sugar cane. This is especially so in the principal cultivation areas such as those in Java.
4. The price of domestic sugar has always been higher than that available on the international market. The government sought to stabilize the price of sugar in the home market and ensure its availability throughout the Indonesian archipelago. Like other agricultural products, the distribution and trade of sugar came under the strict control of the state-owned buffer stock agency, BULOG (Badan Urusan Logistik Nasional). The agency went about setting sugar prices at the farm and sugar mill levels as it was given monopoly rights over the trade and distribution of sugar in 1975. In 1981, BULOG also took on the role as sole importer of the commodity.
5. BULOG's monopoly over important food commodities such as sugar came to an end following a bilateral agreement between the International Monetary Fund (IMF) and the Government of Indonesia on January 15, 1998. The agreement, the Memorandum on Economic and Financial Policies, required the Government of Indonesia to gradually liberalise the domestic market, permit the import of products and release farmers from the formal and informal State requirement that compelled them to plant sugar cane. This IMF policy presumes that international competition will boost efficiency in local sugar production and, in turn, benefit consumers.
6. However, as a consequence of the policy, farmers ceased to plant sugar cane, which in turn resulted in factories stopping their production of sugar. Farmers who did continue to grow sugar sold the commodity directly to consumers. The production of sugar went down sharply. During the 1990-1995 period sugar production had reached 2.1 million tons per year. In 1998 it was only 1.5 million tons. To make up for the lack of local sugar, imports were increased from 975,000 tons in 1996 to 1.95 million tons in 1999. Imported sugar came to account for more than 60% of national consumption.
7. The new sugar trade policy, which had come about due to the agreement with the IMF, saw the entry of general importers in the market. Filling in the vacuum that was once occupied by the BULOG monopoly, the general importers easily distorted market prices. They retained or released

sugar stock at will and exploited the wide disparity between the domestic and international price of sugar. This practice greatly increased the profits reaped by distributors and retailers. Importers were the biggest beneficiaries and their gain was at the expense of farmers and the owners of the sugar factories. The increase in the number of traders and importers into the market has resulted in rampant smuggling and hoarding of sugar. This inadvertently led to the collapse of the national sugar industry.

8. Despite the fact that sugar is still imported in fairly large amounts, there is often a shortage of the commodity in several regions and consumers are forced to pay a higher price. Its role diminished, BULOG is no longer obliged to ensure the proper distribution of sugar. With this, there is no government authority responsible for the distribution of sugar to remote and geographically disadvantaged areas where distribution costs are high. The retail price of sugar is quite high especially in remote areas such as that in the eastern part of Indonesia and in areas where smuggling occurs. Sugar plantations and factories are concentrated on the island of Java and most plantations throughout the country are smallholdings. This concentration of the sugar industry in Java makes difficult the distribution of sugar to the outer islands and remote areas.

9. The IMF policy applied hastily and without the requisite safeguards has actually made Indonesia heavily dependent on imported sugar. Farmers have lost their income and the price of sugar is yet not stable. In light of this situation the Ministry of Trade and Industry has recently decided to again involve BULOG in the sugar import trade. Without any prior notice, BULOG appointed Cargill, an international marketer, processor and distributor of agricultural products, to do the task. Distribution is to be conducted in collaboration with the military and police cooperatives, just as it was during the New Order era.

10. The Agreement on Agriculture of the WTO requires market liberalisation and the elimination of trade barriers by the opening of domestic markets to international products and the gradual elimination of domestic support and export subsidies. Indonesia had committed itself to allow access to its domestic sugar markets by up to 5% by the year 2001. It was allowed to apply a 95% import tariff until 2004. This multilaterally negotiated position had to be abandoned because of the conditionalities imposed by the IMF when Indonesia sought financial assistance following the East Asian Economic Crisis. Conditions stipulated by the IMF required Indonesia to liberalise its markets at levels that surpassed the latter's earlier commitments to the WTO. This situation is oft referred to as 'WTO Plus'. Under the IMF prescription Indonesia has had to apply zero percent import tariff and permitted 48% market access from 1997 to 2001. In addition, it has eliminated the fertilizer subsidy and shifted from soft loan credit to credit on commercial terms to its farmers. This new scheme has resulted in many farmers being kept away from their land.

11. BULOG succeeded in stabilizing the retail price of sugar for consumers until 1997. It however failed to protect and support cane farmers and to a lesser extent, sugar mills. Farmers received only 66% of the intended income from their crops and 59% of sugar mills are reported to have been economically and technically inefficient. 79% of these mills are located in Java. This study indicates that neither a national government monopoly nor unrestrained international competition can adequately serve the consumer interest.

12. To improve the sugar trade, there needs to be a comprehensive, integrated national policy. It has to involve all actors in the sugar trade from farmers to distributors to consumers and the relevant ministries. It must be designed to benefit all parties equitably. First, the policy must address issues relating to farm technology improvement, development of sugar production out side Java and the protection of domestic production during a transition period by increasing import tariffs. Next, there is the urgent need to control the smuggling of sugar while the execution of policy has to be done in a transparent manner, free from manipulation by political elites and fully accountable to the public. Third, consumers must be involved in the policy formulation process, officially monitor the implementation of this policy and actively participate in advocacy for sustainable consumption and production. Finally, the government must formulate positions and policies in a proactive manner in anticipation of further sugar market liberalisation particularly through the WTO and bilateral trading agreements.

Chapter I Introduction

1.1. Background and Objective

Sugar is an important source of energy and sweetener for the majority of the Indonesian population. The commodity is also a major source of income for sugar cane farmers and domestic sugar mills. Given this reality and the fact that the government considers sugar to be one of the few important basic food commodities, sugar production and distribution is an important issue that must be managed in a strategic manner.

Sugar is also a lucrative trade commodity. With a current national demand of 3.2 million tons a year, annual sugar turnover is estimated at Rp.13-15 trillion (US$ 1.6-1.8 billion). It is no surprise that the sugar trade has often been subject to hoarding, smuggling and manipulation. This is especially so in the past few years when the state monopoly on trade and distribution was removed. This has led to both sugar shortages and price hikes. In early 2003, for instance, sugar prices rose from Rp.4300 to Rp.6000 in some regions. Upon investigation, the Minister of Trade and Industry found some 17,000 tons of sugar piled up in the port warehouses of Sabang, a remote town on the west coast of Sumatra (Tempo 10 March, 2003).

Such a situation is detrimental to the consumer interest and thus the Indonesian Consumer Foundation (YLKI) conducted a study on the sugar trade situation in Indonesia and its impact on consumers. The main objective of the study is to identify the implications of the structural adjustment programme imposed by the International Monetary Fund (IMF) and the rules of the Agreement on Agriculture (AoA) under the World Trade Organisation (WTO) on sugar supply and trade in Indonesia. In addition, the study examines how consumers are affected by the above in terms of access to, affordability and availability of sugar supply.

2.2. Methodology and Report Organisation

This report is based mainly on literature study of previous findings such as by Mubyarto and Daryanti, 1991; Hafsah, 2002, Bachriadi, 1995 and reports in the mass media. The study also analyses the IMF Letter of Intent, and the AoA documents. Focus group discussions were held to compile views of affected agencies and individuals as a foundation for the analysis.

This case study publication is an abridged version of a more comprehensive report written in the Indonesian language. The Indonesian version of the report looks at the entire structure of sugar production and trade in Indonesia, including the condition of cane farmers. The Indonesian report was written by Dianto Bachriadi, while this version was compiled by Hira Jhamtani and Indah Suksmaningsih. This case study focuses mainly on issues that affect the consumer.

Section II of this report describes the situation of sugar trade and distribution before 1998, i.e. before the structural adjustments imposed by the IMF, the situation after 1998 and an analysis of the impact of the AoA. Section III provides a brief analysis on consumer concerns related to the sugar trade in the country while section IV contains conclusions and recommendations for sustainable sugar consumption.

Two matters need to be taken into account. First, some data and information differ from each other, because the sources are different. In Indonesia, this is a common phenomenon as there is no reliable national database available. Secondly, the value of the US dollar to the Indonesian Rupiah varies during different years. Prior to 1998, the exchange rate was about Rp.2000 for US$1. Between the years 1998 and 2000, the value of the Indonesian currency fluctuated between Rp.5,000 and Rp. 17,000 per US$1. In 2003, the exchange rate was about Rp. 8,000 to every US$1.

YLKI would like to acknowledge the generous support provided by Consumers International in undertaking this case study. We would also like to thank Dianto Bachriadi for conducting the preliminary study and writing the comprehensive report on which this case study is based.

We hope this report will be useful for those involved in consumer issues and trade related concerns.

Chapter II Sugar Industry and Policy In Indonesia

The sugar industry in Indonesia has great potential to thrive. In 1931 the archipelago was the second largest producer of sugar in the world (Mubyarto and Daryanti, 1991). Indeed, the Javanese population has been cultivating sugar cane and processing it for 400 years. The commercialization of this industry began only in 1637 (Wahyudi, 2000).

The current Indonesian sugar industry is a legacy of the Dutch Colonial era. The industry grew on the maximum utilisation of abundant land and cheap labour. Since 1830, the industry expanded with a system of forced cultivation by the Dutch. This continued to be applied to smallholders under the Sugar Cane Intensification (TRI – Tebu Rakyat Intensif) programme undertaken by the Indonesian Government in 1975. Both policies were aimed at ensuring high sugar cane productivity through the exploitation of land and farmers.[1] While the colonial government adopted the policy to generate export revenue, the TRI programme was adopted mainly to ensure self-sufficiency in sugar in the post independence era - ensuring that consumers have a regular supply of sugar at stable prices.

To ensure stability in the price and supply of sugar, the Indonesian government also controlled the distribution and trade in sugar until 1998, when Indonesia began to liberalise its sugar trade. To that end, two factors need to be considered. First is the IMF bail out loan package to mitigate the economic crisis that hit the country in 1997/1998[2]. The loan package contained several conditionalities, one of which was the liberalisation of the sugar industry and trade. Second is the Agreement on Agriculture (AoA) under the World Trade Organisation (WTO) which sets global trade rules based on the elimination of market distortion such as subsidies and trade barriers.

To provide an understanding of how consumers are affected by the national and global policies, this section is divided into three parts. The first deals with the national sugar situation, with emphasis on the time frame until 1998, although some recent information is also included. The second part describes the policies adopted after 1998 and how most of these policies are, notably, tied to the IMF conditionalities. The third part deals with the possible impacts of the AoA on sugar prices.

2.1. National Sugar Situation

This sub-section provides information on the state of sugar production, consumption, trade and distribution based on national policies.

2.1.1. Sugar production and consumption

Indonesia has a potentially vibrant sugar industry but the industry, however, is on the brink of collapse, as indicated in Table 2.1. Sugar cane plantation lands increased from 81,667 ha in 1970 to 420,630 ha in 1995, but declined to 377,100 ha in 1998 and then further to 344,750

[1] Both systems involve contract farming between sugar mills and cane farmers to ensure land availability and cheap labor at the expense of the farmers. Usually farmers are literally forced into the contract.

[2] Indonesia experienced financial and monetary crisis when the value of the Indonesian Rupiah declined drastically against the US Dollar, leading to a full blown economic crisis in which prices of commodities increased while closures of industries led to massive unemployment and social crisis. The country has as yet to recover from this serious economic and social crisis.

ha in 2001. Land for sugar cane plantation also declined in 1997 as indicated in Table 2.2. It is important to note that there are three categories of cane growers: smallholders, state owned plantation and private plantation. Between the years 1997 and 2000, about 54% of cane growers were small holders, 24% state plantation and 22% private plantations. Therefore, unlike other countries where large capital holders dominate sugar plantations, it is the smallholders who are the dominant group of cane growers in Indonesia. As a result, policies that affect sugar production in Indonesia have a major impact on the livelihoods of many small farmers.

Table 2.1
Sugar Production and Consumption in Indonesia

Year	Cane cultivation area (ha)	Crystal sugar production (ton)	Domestic sugar consumption (ton)	No. of operating sugar mills (unit)
1970	81,667	715,312	872,446	55
1980	188,772	1,249,946	1,660,870	59
1990	364,977	2,125,868	2,389,222	67
1995	420,630	2,104,619	3,179,083	69
1998	377,100	1,496,027	2,739,295	69
2001	344,750	1,727,570	3,371,816	67

Source: Bachriadi *et. al.*, 2000; Hafsah, 2002; and *Kompas* 29/05/2002

In contrast to the decline in cane growing area, the number of domestic sugar mill shows an increase as indicated in Table 2.1. Another source reported that there were 64 sugar factories operating in Indonesia in 2001, 52 of which were located in Java while the other 12 were located outside Java. This number represents a decline from 71 in 1997 due to the closure of several sugar factories in Java (ICN. No329, 2001).

Table 2.2 shows a negative average growth of cane cultivation area in 1997/1998, which then led to decline in sugar production. Several factors led to this decline, viz.:

Table 2.2
Sugar Cane Plantation Area in Indonesia, 1997 – 2000 (ha)

Year	Smallholders' Plantation	State Plantation	Private Plantation	Total	Growth (%)
1997	218,201	85,086	83,591	386,878	-13.4
1998	183,302	85,858	56,555	325,715	-15.8
1999	177,000	82,000	83,000	358,000	9.9
2000	189,000	89,000	88,000	366,000	2.2
Average growth					-4.3

Source: Directorate General of Plantation Estates/Data Consult (ICN, 13, 2001)

a. Poor on-farm technology

Based on observations during the study, the government did not provide adequate funding and support to develop better cane varieties. Yet fees are extracted from distributors (Rp. 100 per 100kg) supposedly to be given to the Sugar Research and Development Centre (P3GI) for the purpose of improving on-farm technology. It is also important to note the current cane-cutting frequency practised by farmers. Ideally the cane plants must be changed after four cutting seasons. Yet farmers keep cutting the cane for 11 to 12 cutting seasons, thus yielding low quality canes with low rendement value (the quantity of extractable sugar per unit of cane) when processed into sugar. Both situations have led to decline in cane harvest over the last few years as illustrated from the following example. In 1975, land for cane cultivation was 104,800 ha with a production rate of 92.8 ton per ha. In 1998, land under cane cultivation increased to 377,100 ha but production still declined to 71.9 ton per ha (Hafsah, 2000). Adding to the decline is the slow manner in which canes are cut and transported to the factories – milling freshly cut canes helps increase the rendement rate of the canes. Another important issue is the lack of development of sugar cane cultivation in areas outside Java. Java is already saturated with cane cultivation and many areas outside the island may be potentially better for cane cultivation.

b. Poor off-farm technology
The sugar mills are a legacy of the colonial era; the government did not provide much investment to revitalise the mills or use new technology. This existing cane processing capacity is relatively low. For instance, out of the 52 sugar mills in Java in 2001, 22 have the capacity to process 1,000 to 2,000 tons of canes per year, and only four mills could process five to ten thousand tons of canes. On average the processing capacity of sugar mills in Java is only 2,750 tons per year and outside of Java 5,000 tons per year (INC, 2001).

c. Inadequate social and economic incentives
Farmers are losing interest in sugar cane growing due to inadequate economic and social incentives to small holder cane farmers. This is despite the fact that they make up the largest number of cane growers in Indonesia. Disbursement of credit for farmers is low or late and there is often shortage of fertilisers. The minimum support for farmers declined further when the economic crisis hit the country in 1997 and when the IMF conditionalities began to take effect in 1998 (See section 2.2).

Further decline in production occurred during the past few years as the capacity of domestic sugar production is further undermined by cheap imports. This will be discussed in section 2.2.

While production declined, consumption has increased steadily from about 872 thousand tons per year in 1970 to more than three million tons in 2001, as indicated in Table 2.1. But the per capita sugar consumption is relatively low as compared to other countries in Southeast Asia. For instance between 1990 and 1998, sugar consumption in Indonesia was in the region of 13.12 to 17.12 kg per capita per year as compared to 41kg/capita/year in Malaysia, 26.5 kg in the Philippines, 23 kg in Thailand, and 64 kg in Singapore (Soetojo, 1998 in LPEM-YLKI, 1998).

Another source estimated that domestic sugar consumption grew at an average annual rate of 3.9% while average per capita sugar consumption was 16 kg per year during the same period (INC, 2001). According to the Indonesian Sugar Council, the food processing industries consumed about a quarter of domestic consumption in 2000, or about 810,000 tons (ICN, 2001).

The figures above show that there is a substantial mismatch between the country's sugar consumption and its domestic production. Domestic demand that cannot be fulfilled by domestic production is satisfied by imports. Indonesia began to import sugar since 1966 but at a modest level. In fact, the country was self sufficient in sugar in 1984 and 1985 when the country did not import sugar at all. As a comparison, between the years 1966 and 1975, the country imported 8.6% of its sugar consumption (1.04 million tons per 10 years) while from 1996 to 2001 the country imported 48.6% of its sugar consumption (about 9.22 million tons for the six years) (Sugar Yearbook, 1996-2002; Dewan Gula Indonesia, 2001 in Hafsah, 2002). Further information is presented in section 2.3.1.

Given the high sugar demand compared to low national production capacity, Indonesia has become a lucrative market for sugar trade. This has created a situation that may not be favourable to consumers.

2.1.2. Sugar pricing and trade

Indonesian consumers are paying a higher than necessary price for sugar. This is partly because the mills are inefficient as discussed above. Inefficient mills mean higher production cost –

milling accounts for 33% of the entire cost to produce sugar (as compared to 31% in Thailand, and 23% in the US).

Table 2.3
Comparative Cost of Sugar Production in Selected Countries

No.	Country	Price (Rp per Kg)
1	Europe	6,650
2	United States	3,524
3	Dominican Republic	3,427
4	Philippines	3,320
5	Mexico	1,760
6	India	1,700
7	Thailand	1,664
8	Australia	1,646
9	Brazil	1,210
10	Indonesia	3,100

Source: PT Rajawali Nusantara Indonesia, 2003

In the 1970s the cost of sugar production was US$0.357 per kg, compared to US$0.251 per kg in India and US$0.187 in the Philippines (Hafsah, 2002). In 2003, the cost of sugar production in Indonesia is Rp 3100, compared to Rp 1700 in India and Rp 1664 in Thailand. A comparative cost of sugar production is provided in Table 2.3 above.

BULOG was formed in 1967 to undertake the task of stabilizing food prices, mainly rice. In 1971, based on Presidential Decree No. 43/1971, BULOG was charged with the task of distributing sugar produced by state owned companies (PNP/PTP). The aim of this policy was to ensure that sugar was well distributed in all areas of the country and that the prices were stable. This is a task that could not have been achieved if sugar distribution was conducted by sugar marketing syndicates and prices were left to market forces (Mubyarto, 1983; Hafsah, 2002). Then in 1974, BULOG was also ordered by the government to "coordinate' the distribution of sugar produced by other (non-state owned) mills. The justification was that although these private mills produce less sugar than the state owned mills, they can still influence the market price (Hafsah, 2002). Thus began the sugar trade monopoly by BULOG.

The government at that time (the New Order Government under President Soeharto) provided two justifications for the above policy. First, the monopoly was to prevent fluctuations in sugar prices for the sake of consumers. Secondly, it was needed to ensure supply of sugar to the most remote parts of the country, a task that no private company would undertake without substantial increase in the price of the commodity.

Indeed domestic sugar price was often stable, at least until 1997, but it was higher than the international market price as indicated in Table 2.4. There is another dimension to the situation - Indonesia imports a substantial amount of sugar to meet domestic demands. The license to import sugar was also given solely to BULOG who then subcontracted the task to a number of large and medium companies. Sugar was imported at zero tariff. The Government stated that this policy was adopted to protect consumers because no tariff on imports meant that sugar price can be kept low. However, as the domestic price remained higher than the international price, consumers actually did not benefit from this policy. For example, even when international sugar price was at one of its lowest points in 1978, i.e. US$0.182 per kg, the domestic sugar price was set at about US$0.56 to 0.64 per kg (US$ 1 = Rp 625 at that time).

Another reason given by the government to justify keeping sugar price high was to protect cane farmers and domestic sugar mills. The function of BULOG was actually not only to stabilise and distribute basic food commodities, but also to protect farmers by providing subsidies or buying their produce at profitable prices. The profits obtained by BULOG should have been used to increase farmers' welfare (through fair price when buying their produce or providing subsidy for cane production) to be invested in the development of better cane varieties and to invest in improved sugar production technology. None of these options were carried out as is evident from these facts. For instance in 1999, a study by the Directorate General of Plantations/Estate Crops revealed that out of 56 sugar mills all over Indonesia, only 12 are running economically and are technically efficient, nine are only technically efficient while 33 are totally inefficient. In fact, the IMF and the World Bank suggested that four mills be closed down.

Table 2.4
Domestic and International Sugar Prices, 1991-1997
(Rupiah per kilogram)

Year	Domestic Price (P)[1]	International Price (P*)	Ratio P/P*
1991	960	391	2.5
1992	1100	411	2.7
1993	1160	466	2.5
1994	1220	574	2.1
1995	1380	662	2.1
1996	1482	621	2.4
1997	1548	744	2.1

Note: [1] = all types of sugar, including imported sugar
Source: LPEM FEUI and YLKI, 1999

Thus the only function that BULOG performed properly was to ensure that sugar was available to consumers even in the most remote areas, with very little fluctuations in prices, at least until 1998.

2.2. The Impact of IMF Conditionalities after 1998

Indonesia may perhaps be the country that experienced the most serious impact of the 1997 economic crisis that hit East Asia. The drastic decline of the value of the Rupiah against the US Dollar resulted in the collapse of various industries. These are the industries that depended on importing raw materials or processing materials. The economic crisis also increased the overall private and public debt. The Indonesian government invited the IMF to bail out the former from its financial quagmire with a US$ 23 billion loan package. This was mainly to offset the current account deficit. Instead the IMF designed a "reform package" of US$ 43 billion complete with conditionalities (Ismawan, 2002). These conditionalities were outlined in the Memorandum of Economic and Financial Policies (MEFP) as attached to the Letter of Intent (LoI) between the Indonesian government and the IMF.

One of the most important conditionality related to the sugar distribution is the dismantling of the role of BULOG in regulating trade of basic commodities in Indonesia. In other words, the IMF wanted trade in food, including sugar, to be regulated by market forces, as indicated in some of the points of the MFEP in Appendix 1. The IMF also asked that farmers be given freedom to plant crops of their choice and should no longer be forced to plant sugar cane to support the sugar industry. In addition, subsidies for sugar, wheat flour, maize and soybean should be lifted, thus raising their prices in the market.

During the initial stages of the implementation of the MFEP, particularly during the tenure of Soeharto (before he resigned under pressure in May 1998) and then followed by Habibie (the ex Vice-President of Soeharto), there were attempts to maintain BULOG's function in regulating trade in basic foodstuff. It was only in 1999, during the tenure of President Abdurrahman Wahid that the conditionalities of LoI were fully implemented. Through the decree of the Minister of Trade and Industry [(MTI) No. 717/MPP/Kep/12/1999], regulation of sugar trade by BULOG was discontinued and general importers were allowed to import and distribute sugar, with zero per cent tariff. The government also issued Presidential Instruction No.5/1998 to cease the Sugar Cane Intensification programme (TRI) and thus cane farmers were free to choose crops of their choice. At a glance, this policy appears to benefit farmers and consumers. But the situation in reality was not so simple and regulations were revised as problems arose. A brief description of the sugar trade regulations is given below and in Appendix 2.

1. Until February 1 1998, import tariff was zero per cent, and Value Added Tax (VAT) 10%, but import license was given only to BULOG.
2. Between February, 2 1998 and August, 4 1999, import tariff was zero per cent, VAT 10%, Import by general importers (Decree of Trade Minister No. 259/MPP/Kep/9/1998).
3. From August 5 to December 31, 1999, sugar could only be imported by sugar mills in Java that have been recognised as producer importer, i.e. producers who also import (Decree of Trade Minister No. 364/MPP/Kep/9/1999).
4. From January 1 2000 until July 2 2002, sugar can be imported by general importers with import tariff of 20 – 25% (Decree of Finance Minister No. 568/KMK 01/1999).

5. Since July 3, 2002 import tariff for cane sugar is Rp 550 per Kg, while beet and other sugars is Rp 700 per Kg (Decree of Finance Minister No. 324/KA/01/2002). (Source: Director of Customs, July 30, 2003).

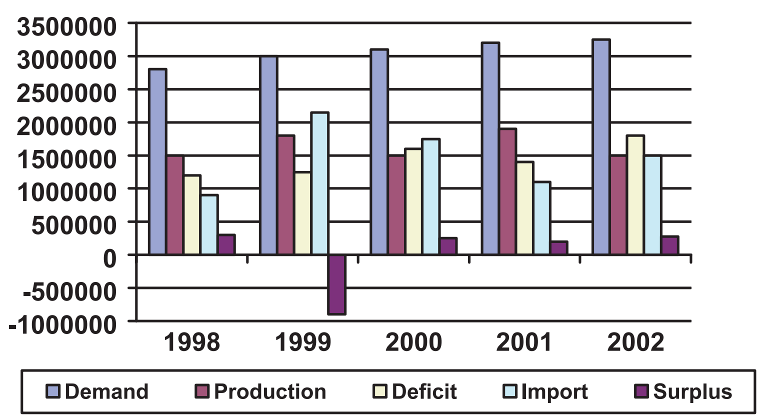
The above policies had implications on the domestic sugar industry. First, cane production was reduced because farmers were no longer obliged to plant sugar cane to support sugar mills (as required by IMF conditionalities). This is evident from Table 2.2. which shows a negative growth of cane cultivation. It must be reiterated (as shown in Table 2.2) that the largest amount of cane to feed domestic sugar mills comes from smallholder farmers. Once the subsidy and incentive were eliminated, they stopped planting cane and switched to other crops. As a result, there was a decline in sugar cane supplies to the mills.

Table 2.5
State of Sugar Production and Supply in Indonesia
1995-2002 (000 ton)

Year	Initial Stock	Production	Import	Total Supply	Export	Domestic consumption	Final Stock
1995/1996	365	2,090	919	3,374	0	2,900	474
1996/1997	474	2,094	1,091	3,659	0	3,100	559
1997/1998	559	2,190	921	3,670	0	3,150	520
1998/1999	520	1,492	1,702	3,714	6	2,800	908
1999/2000	908	1,690	1,949	4,547	17	3,200	1,330
2000/2001	1,330	1,600	1,600	4,530	5	3,300	1,225
2001/2002	1,225	1,700	1,600	4,525	0	3,400	1,125

Source: *Sugar Yearbook* 1996-2002 (cited from Hafsah, 2002)
Note: Figures for consumption is different from Table 2.1. due to the different sources.

In 1997 there were already signs of declining sugar production due reduced harvests caused by the prolonged drought brought about by *El Nino*. In 1996, domestic sugar production was still 2.1 million tons and in 1997 it was 2.2 million tons but this was still not enough to meet domestic demands. In 1998, production dropped further to 1.5 million tons. Total production range of 1.5-1.7 million tons per year was maintained until 2002 as indicated in Table 2.5 and Figure 1 as compared to about two million tons before 1998.



Source: Ministry of Trade and Industry and Office of State Minister for State Owned Enterprises, 2003 (cited from Tempo, 10 March 2003).

Figure 1. National Sugar Map

Secondly, the change in the function of BULOG led to disturbance in sugar distribution in several areas. Once BULOG had stopped controlling trade and distribution, some areas experienced sugar shortage, as reported by the mass media between July-September 1998 and June-July 2000. Sugar scarcity caused drastic price increase in the sugar retail market. According to BULOG, retail sugar price was between Rp. 1,380 and Rp. 1,500 per kg between 1994 and 1997. In 1998, the price was officially Rp. 2,245 per kg, but in reality prices varied in different areas, amounting to Rp. 2,400 – Rp. 4,000 per kg (Suara Pembaruan, 2 July 1998; Kompas 1 August, 1998).

Thus the notion that dismantling distribution monopoly and liberalising imports would reduce sugar prices and therefore would benefit consumers has been proven to be untrue. Since retail sugar prices in Indonesia were higher than the international price, importers took advantage of the situation because they can gain profits from the price difference. Table 2.6. shows the disparity in the domestic and international prices of sugar between 1996 and 2002. Without any government control over pricing and distribution - a role previously undertaken by BULOG - importers could easily distort market prices further by retaining or releasing sugar stock. The large amount of profits reaped by importers also attracted new comers to enter the market, thus further distorting sugar supply in the country. At the same time, the government could do little to curb sugar smuggling.

Table 2.6
Difference between International and Domestic Sugar Price
1996-2002

Year	International Price (US cent/Kg)	Domestic Price (Rp/Kg)	Exchange rate US$ to Rp (average)	Difference between international and domestic price (%)
1996	26.36	1,507	2,383	41.7
1997	25.06	1,586	4,650	73.5
1998	19.67	2,978	8,025	53.0
1999	13.81	2,681	7,100	36.6
2000	18.04	3,028	9,595	57.2
2001	19.04	3,739	10,266	52.3
2002	15.18	3,611	9,261	38.9

Source: – for domestic price: BPS (1994-1997), Depperindag, and BULOG
– for international price: *World Bank Development Prospects: Commodity Price Data Pink Sheet*, 1998-2002
– For exchange rate: Statistik Keuangan & Ekonomi, Pusdatin BI, 2003, www.bi.go.id

One outcome of this became very clear - domestic sugar prices did not decline. In fact there were many problems on the supply side. The policy was implemented in haste, without proper baseline data or understanding of the issues and without a transition period before the dismantling of BULOG. There were no safeguards against speculation.

Third, the influx of cheap sugar imports further undermined the capacity of the domestic sugar mills. Production costs, both of planting sugar cane as well as producing refined sugar, was still too high, especially since subsidies have been cut due to IMF conditionalities (see next section). Although domestic sugar price increased by an average of 19% annually, sugar producers and cane farmers were not happy because they still could not compete with cheap imports. They launched several protests against imports of sugar, mainly demanding a high import tariff, ranging from 75% to 110%, as illustrated in Box 1.

So, instead of strengthening the potential for producing sugar in the country, IMF induced policies actually weakened domestic sugar industry, helped to raise sugar prices and disrupted sugar supply in remote areas. Instead of securing sugar supply for consumers by creating policies to strengthen incentives for cane and sugar production, the new policies seem to be designed to stimulate the collapse of the national sugar industry.

Box 1.
Sugar Market Liberalisation

In April 2002, hundreds of sugar cane farmers staged a protest at the Ministry of Industry and Trade. The farmers emptied a truck full of sugar cane and spread the contents of a sack of sugar on the compound of the Ministry. This was to symbolise their frustrations over the problems of sugar prices since 1999.

The farmers said that the lower prices of imported sugar had hurt prices of local sugar, until it reached a record low of Rp.2700 per kg. Ideally, the price of sugar should be Rp.3,000 to 4,000 per kg in order for the farmers to get minimum profit.

The Trade Minister, Rini Suwandi, said that Indonesia imports sugar because the local production cannot fulfill national demands for the commodity. National demand for sugar is 3.5 million tons per year, production is only 1.7 million tons in 2001. However, the situation has been taken advantage of by importers to import a tremendously large amount of sugar, thus hurting local prices. In violation of import tariffs, the practice of under invoicing and sugar smuggling was rampant. In some cases raw sugar for industries were also sold in the regular market, pushing the prices of local sugar even lower.

Indonesia made commitments to the WTO to impose tariff up to 95% on sugar until 2004. This changed when IMF conditionalities asked for liberalization of the market and the tariff for raw sugar was set at 20% while that for white sugar was at 25%. These tariffs are among the lowest in the world. Europe imposes 240% and the US 150%. Other cane sugar producing countries also impose high import tariff to protect their domestic industry. For instance India imposes 150%, Bangladesh 200%, Thailand 104% and the Philippines 133%. Worse still, the investment board had, at one point, provided incentive to industries by allowing an import tariff of only five per cent.

For some time, the government had planned to lower the tariff further to zero per cent. The Indonesian Sugar Mill Association and sugar cane farmers protested against this, saying such a policy would wipe out both the mills and the farmers' livelihood. The sugar mill association said they can compete with imported sugar if the tariff is set at 95% except for two sugar mills that will collapse. A more serious problem is actually smuggling, which means imported sugar enters the market without any import tariff.

There has also been criticism that both Indonesian sugar mills and cane farmers are not efficient enough and that therefore their productivity is low. The government should not be trying to protect such inefficiency. But, the inefficiency can be tackled at the national level and the Agriculture Ministry is trying to boost productivity by providing incentives to farmers and providing better seeds.

Following the protests, the trade ministry recently issued a decree, which states that only the government is authorised to import sugar through state owned companies. This is one effort to increase domestic prices. (Source: Kompas 27 April and 30 2002, cited from Jhamtani, 2002; PT Rajawali Nusantara Indonesia, 2003).

Although sugar import liberalisation was approved to help consumers get cheap sugar, the situation on the ground is quite different. Despite the fact that sugar is imported in fairly large amounts, there is often shortage of sugar in several areas, and consumers keep paying higher prices. The problem remains unsolved even when the government decided through Decree of MTI No. 634/MPP/Kep/9/2002 to revise regulations on sugar imports. It allowed only companies with

75% of raw materials derived from farmers to import sugar. The decree also allowed these companies to import white sugar if the collective price of sugar produced by local farmers exceeds Rp. 3,000 per kg. The decree awarded importing licences to three state owned companies and one private company. Some analysts suspect that this move was made to sustain these companies as they were facing problems trying to compete with low prices of imported sugar. The decree also set the sugar price at Rp. 3,800 to Rp.4,000 per kg. The policy was actually aimed at controlling the market price of sugar as well as to protect cane growers and the domestic sugar industry (Tempo, March 4-10, 2003).

The above policy is supposed to satisfy both consumers and producers. Sadly, this is not the case. Sugar price rocketed again during the first quarter of 2003. In Jakarta, the price of sugar was Rp.4,000 to Rp.6,000 per kg, while in Semarang it was Rp. 5,900. Smaller shops, however, offered a higher price of Rp. 6,200 per kg. The Tempo magazine (March 4-10, 2003) reported the following reasons for the price increases and sugar shortage in the market:

> *"First, the companies appointed to import sugar do not have the adequate experience in importing and distributing sugar. They also often lacked funding. As a result, these companies had sub-contracted the task to "sugar bosses" that have had substantive experience in the sugar trade. These companies, particularly the state owned ones, often provide only blank letterheads, and do not control how much sugar is actually being imported. Secondly, under invoicing and smuggling is still rampant. This is mainly to avoid the tariff of Rp. 500 per kg imposed on imported sugar. Lastly, traders resort to sugar hoarding to inflate prices. This all goes to indicate there is simply no control by any authority over sugar importing, smuggling, hoarding and distributing activities."*

In addition, it must be stressed again that sugar trade is very lucrative in Indonesia with many loopholes in the law for opportunists to reap profits. The pricing mechanism is complicated as indicated in Appendix 3, with various fees and taxes involved. Many of these fees and taxes are easily manipulated. For instance, importers are asked to pay a revitalisation fund for farmers amounting to Rp. 37,500 per ton. In reality, the money hardly ever reaches the farmers (Tempo, 4-10 March, 2003). This is indicated by the fact that their cultivation practices have not improved and many of them have switched to other crops when the government reformed its policy as required by the IMF.

Ironically, the situation has come full circle. In a meeting on February 5, 2003, the Trade and Industry Minister, Rini Soewandi decided to again involve BULOG in sugar import trade, mainly to function as a buffer stock agency. BULOG, which is allowed to import 100,000 tons of sugar, then appointed Cargill to do the task. Distribution will however be conducted in collaboration with military and police co-operatives, just as during the New Order era (Tempo 4-10 March 2003).

It is clear that structural adjustments as imposed by the IMF have not improved the sugar trade and distribution in Indonesia. These adjustments were made without analysing the underlying weaknesses that occurred prior to 1997. Ironically, Indonesia is a tropical country with high potential for sugar cane cultivation - there is little reason for the country to import so much sugar. The adjustments should have been targeted towards making the industry more efficient, thus creating welfare both for the farmers and sugar mill owners, whilst keeping prices low for consumers.

2.3. Analysis on the Possible Impacts of the AoA

The Agreement on Agriculture (AoA) is an agreement under the WTO that regulates liberalisation of agricultural products. It has three important elements namely, opening up market access, reducing / eliminating domestic support and eliminating export subsidies. The main objectives are to reduce import tariff and subsidy to minimum and to open up domestic markets to agricultural imports[3]. The following provides

[3] Another important aspect is the Sanitary and Phytosanitary (SPS) measures for setting health and safety standards of agricultural products. The details of the AoA can be seen in The WTO Agreements Series No. 3/2000 – Agriculture, Geneva: WTO Publications.

a brief analysis on each of these three elements related to the sugar industry in Indonesia.

2.3.1. Market Access

As a developing country Indonesia is required to reduce its import tariff up to 24% by 2004 and to provide market access of at least 5% of its domestic demand to imported products. Both requirements have no relevance for sugar. Because although Indonesia formally applied bonded tariff of 95% on sugar (See Table 2.7) in reality the country imported sugar at zero per cent tariff until recently. As stated above, it even recently applied only 20% tariff on raw sugar and 25% on refined sugar.

Table 2.7
Indonesia's Commitment on Sugar Tariff Reduction in GATT

No.	HS Code No.	Product Description	Basic Import Tariff (%)	Bonded Import Tariff (%)	Implementation Period
857	170111000	*Sugarcane*	110	95	1995–2004
859	170191100	*Raw sugar*	110	95	1995–2004
860	170191210	*Refined white sugar for retail sale*	110	95	1995–2004

Source: GATT, *Uruguay Round Schedule XXI – Indonesia* Part 1: Most-Favored-nation Tariff Section 1: Agriculture Products

The former Indonesian government justified the application of zero per cent tariff on sugar by stating that import tariff will increase domestic sugar prices and that this will be an additional burden on consumers.

Interestingly, in 1991, the World Bank suggested that the government apply 31% import tariff on sugar based on its observation of the development of the sugar industry in Indonesia. The Bank said that this would help to improve the efficiency and productivity of the domestic sugar industry. Apparently the recommendation was not considered by the Indonesian Government as tariffs on sugar imports remained at zero per cent.

As for market access, Indonesia imported an average 12.3% of its annual sugar consumption in 1966 until 1995. This increased to 48% during 1996-2001 (Table 2.8). Both figures are way above the requirements of the AoA. Thus the AoA has no relevance whatsoever to the Indonesian consumers in terms of the trading of sugar.

2.3.2. Domestic Support and Export Subsidy

Sugar cane farmers in Indonesia had previously enjoyed subsidies for fertilizer and fuel as well as low interest credit. All this changed in 1998 with the structural adjustments imposed by the IMF. Fuel and fertilizer subsidies were gradually reduced to zero per cent in 2003. Low interest credit was naturally eliminated when the country was hit by the financial crisis in 1997. Currently farmers can get credit direct from the Bank with sugar mills as their guarantor, at an interest rate of 16% for each growing season.

Table 2.8
Sugar Imports in Indonesia, 1966-2001 (x1000 tons)

Period	Total	Average / year	% of consumption
1966–1975	1,044.0	104.4	8.6
1976–1985	3,460.0	346.0	18.8
1986–1995	2,420.5	242.1	9.4
1996–2001	9,219.9	1,536.7	48.6
1966–1995	6,924.5	230.8	12.3
1966–2001	16,144.4	448.5	18.3

Source: Calculated from Hafsah (2002) and *Sugar Yearbook* 1996-2002

Again, in the case for subsidy reduction, the AoA does not apply. The IMF structural adjustments and the economic crisis had effectively eliminated subsidies.

Meanwhile the question of export subsidy simply does not arise as Indonesia has hardly exported sugar since 1966. The exports of 1998-2001, as shown in Table 2.5, are negligible and are not relevant to the requirements of the AoA.

The only remaining aspect relevant to liberalisation of the agricultural products is the role of BULOG. Indeed Article XVII of the GATT Agreement provides for the operation of State Trading Enterprise (STE) such as BULOG as long as it does not distort the market. An STE can operate based on principles such as non-discriminatory, commercial application of tariff concession, limited national treatment, transparency and should not distort the international market (Hafsah, 2002). In this case, BULOG could not meet these requirements and it was therefore deemed that its role should be curtailed. Interestingly, it was the IMF, and not the WTO, that required Indonesia to liberalise the food market, leading to a situation of WTO Plus despite the fact that further negotiations on the AoA are still ongoing and not yet concluded.

Chapter III Consumers Concerns and The Sugar Trade

As discussed in Chapter II, per capita sugar consumption is relatively low compared to some other developing countries. However, sugar remains one of the most important sources for sweetening and quick energy. Therefore consumers have valid concerns about sugar production, trade and distribution.

This chapter presents three aspects related to consumers concerns:

(1) Accessibility and availability of sugar distribution

(2) Affordability of sugar prices

(3) Protection of domestic producers, which, consumers hope, will be able to ensure sustainable supply of sugar

All the three aspects are inter-related and some parts of the discussion below will overlap. For instance, the problems with access and distribution will affect prices. Or, inadequate incentive to cane farmers may reduce sugar availability for consumers.

3.1. Accessibility and Availability

In the interest of consumer protection, government policies must be able to ensure access and sustainable availability of basic commodities in all parts of the country, at all times and at relatively uniform prices. This must apply to all consumers, especially poor consumers.

Indonesia has access to two sources of sugar: domestic and imported. The domestic source of sugar is concentrated in Java, dominated by smallholders cane growers, as indicated in Table 3.1. Some 63% of Indonesia's total sugar production is based in Java, with 52 factories compared to only 12 factories outside Java.

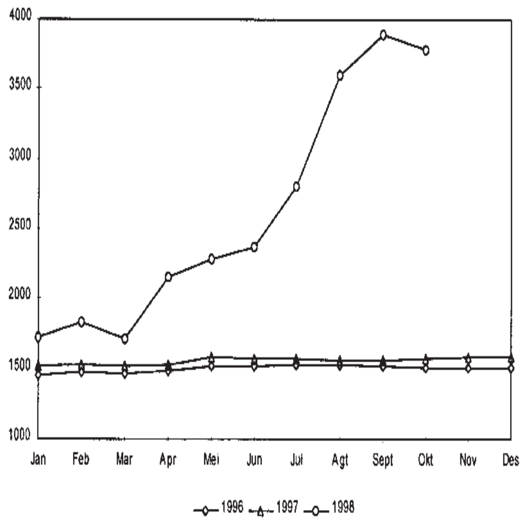
Table 3.1
Sugar Production Based on Cane Sources, in Java and Outside Java

Sugar Production	Source of Sugar Cane			
	Smallholder plantations		Sugar mills	
Java (ton)	997,294	85%	175,993	15%
Outside Java (ton)	135,370	20%	541,481	80%
Total (ton)	1,132,664	61%	717,474	39%

Source: PT Rajawali Nusantara Indonesia, 2003

Such a structure has implications that are cause for concern among consumers particularly those who live outside Java. First, non-Javanese consumers have to rely on the production in Java to get access and constant availability of sugar. In this case, distribution becomes an important factor which will be discussed further in this section. Second, Table 3.1. shows that 61% of sugar is produced by cane grown by small holders. As indicated in Chapter II and also later in 3.3., farmers are now less motivated to plant sugar cane due to inadequate economic incentive such as difficult access to credit and unfair pricing. This has begun to have an impact on national sugar production because sugar cane production has declined over the last few years (as described in Chapter II) leading to less sugar production.

As national sugar production is insufficient to fulfil the national demand, the country began to import sugar on a large scale since 1986, which increased substantially since 1998. Although currently, sugar market liberalisation is seen as a positive measure to solve shortage of supply, in the long run it will threaten the national sugar industry (LPEM-YLKI, 1998).



(Source: BULOG cited from LPEM-YLKI, 1998)

Figure 3.1 Development of sugar price in domestic market, 1996-1998 (monthly, RP per kg).

If the situation continues, Indonesia will find itself being more and more dependent on imported sugar. The country will have to spend more foreign exchange to import sugar and consumers will have less access to sugar production. In addition, sugar price will also fluctuate according to international prices (as illustrated in Figure 3.1.). and the ever-changing exchange rate which is still not stable in Indonesia. At a macro level and in the long term such a situation has serious implications on the food security of Indonesia.

In addition to access, distribution is very important to ensure sustainable availability of sugar to consumers even in the most remote areas. But as a country made up of many islands, distribution is often fraught with problems and incurs high costs. Many islands do not have well-developed infrastructure. Before 1998, such problems were overcome by the single distribution system managed by BULOG. Price fluctuation and shortage of sugar seldom occurred.

But since 1998, private companies were allowed to deal in sugar trade and distribution. But these companies are reluctant to incur the additional costs of distributing sugar to remote and less accessible areas. As a result, these areas faced sugar shortages that were not commonplace when BULOG was still in control. In short, even if the middle class urban population can buy sugar at a cheaper price at certain times, poor consumers in remote areas have to pay more.

The following is an example of the unfair pricing system due to distribution problems. Based on sugar prices in 26 provinces, as shown in Table A, B and C in Appendix Four, it is clear that consumers in the western part of the country pay less for sugar than consumers in the eastern part, whose infrastructure is not well developed yet. In 1997, just before and during the early part of the economic crisis, the price of sugar in different areas varied between Rp. 73 and 88 per kg, the highest price being Rp. 1800 to 1900 per kg (Table A). The price of sugar in Kupang (East Nusa Tenggara) was always higher than in any other province. The price in Kalimantan, Sulawesi, Papua and Ambon was often higher than the national price and it fluctuated frequently. This indicated a distribution problem, which justified government intervention in the distribution of sugar in remote areas.

In 1998, at the height of the crisis and the beginning of removal of BULOG's regulatory role in distribution, prices were more inconsistent ranging from Rp. 1723 per kg in January to Rp. 3785 in December (Appendix Four - Table B). This means the price increased by 9.6% every month and that price variation reached Rp.856 compared to only Rp.24.7 in 1997. Price variation continued in 2003, with the highest being in Papua (Rp.6000 per kg), the eastern most and least developed island. Although many factors led to price disparity and fluctuations (social and economic crisis, financial uncertainty, etc), the main factor for this situation is the lack of a fair distribution system.

The above situation is an indication that the availability of distribution infrastructure determines supply and price stability. The availability of this infrastructure also accounts for the disparity of prices between regions. But providing distribution infrastructure is often considered as part of the production cost. Therefore, remote areas with less population (i.e. fewer consumers) may not attract private distributors to invest in distribution infrastructure. This is one of the main concerns for consumers when both sugar distribution and trade are left solely to market forces sans government intervention.

To conclude, consumers in certain areas in Indonesia also face unfair pricing system and instability in distribution. Prices are higher in areas far from the production centre (Java) or from ports which receive sugar imports. Fluctuating prices also led to sugar hoarding which, in turn, led to shortages in the market. And, the most remote areas are usually the victims of food shortages (such as sugar) but also the main target for smuggled commodities.

In this aspect, monopoly by BULOG, despite being unfair, could still guarantee sugar availability at prices that are more consistent. This statement is not to say that monopoly in itself is right. But some form of control over distribution and price of a basic food commodity such as sugar would benefit consumers, particularly in a vast archipelago such as Indonesia.

3.2. Affordability

For the majority of Indonesian consumers, the price of a commodity is still the most important factor in making a decision to buy a product. A study by YLKI in 1998 indicated that the price is not a very important issue for the high-income consumers and therefore price fluctuation is also not very important. For them availability is more important than price. On the other hand, for the majority of middle to lower income consumers, price and price stability are important. Price fluctuations create problems for them in allocating household budget for food expenses.

But either way, consumers in Indonesia are buying sugar at unreasonable prices. The Tables in Appendix 5 show that consumers pay a price much higher than basic sugar production cost at the national level and higher than the international price. The reason for this high price is the many fees and taxes that contribute to the final retail price. The retail sugar price is determined through a chain of costs as presented in Appendix 3, Appendix 6 and Table 3.2. Each chain results in a total cost which consumers have to pay in the end.

The Finance Ministry currently determines the farm-gate price - the so-called ***provenue*** price - for farmers to sell their sugar, and the price of sugar sold by the factories to the distributor. However, BULOG has the authority to determine several fees and taxes on its own, different from the figures determined by the Ministry of Finance as presented in Table 3.2.

Based on the above figures and Appendix 6, the difference in the price between the distributor and the retail level can be as high as 23.9% during 1976-1986, 27.0% in the next decade and up to 70.8% in 1998 (Bachiadi, 1995 and 2003).

Before 1998, consumers had to pay this high price to ensure stability and availability as guaranteed by BULOG. But after 1998, the pricing policy remains the same, yet stability and availability are not guaranteed as they are left to market forces.

As stated in section 3.1., price fluctuation is one of the concerns for consumers. Before 1998, domestic prices were relatively stable although higher than necessary. But after 1998, driven by IMF conditionalities and instability in the exchange rate of the Rupiah against the US Dollar, prices began to fluctuate as seen in Figure 3.2. Another reason is the frequent policy revisions in sugar trade. Between 1998-2000, there were 7 policy revisions on the sugar trading system and 3 revisions in 2002 alone (See Appendix 2).

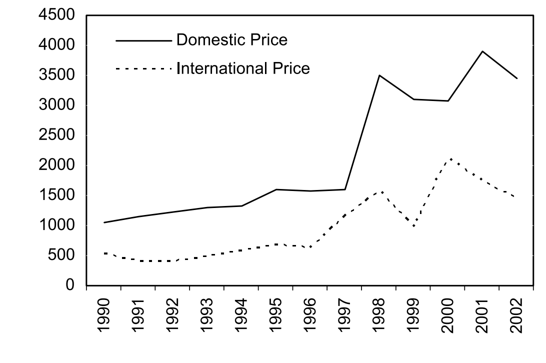
Such changes confuse sugar trade actors and open opportunities for speculation. It creates an atmosphere conducive for some parties to hoard sugar on a large scale to influence the price. Thus sugar prices, supposedly to be determined by the market, may actually be determined by speculators in the absence of a regulatory and supervisory agency.

Given the above situation, Indonesian consumers actually do not benefit much from the liberalisation of the sugar trade. Initially the sugar

Table 3.2
Disparity between Sugar Prices Determined by Ministry of Finance (Decree of Finance Minister No.420/KMK.01/98) and BULOG pricing policy, based on Distribution areas (as of 1 October 1998, Rupiah per 100 kg)

No.	Item	Decree of Ministry of Finance	BULOG Pricing			
			Java, Lampung, Bali		Sumatera except Lampung, Sulawesi, Kalimantan	
			Domestic	Imported	Domestic	Imported
1.	Provenue	210,000	210,000	236,799	210,000	236,799
2.	VAT 10%	21,000	21,000	–	21,000	–
3.	VAT for imports	–	–	7,275	–	7,275
4.	Insurance fee	20	30	–	30	–
5.	Co-operative management fee	150	200	–	200	–
6.	Bank Charges	12,889	12,896	–	12,896	–
7.	BULOG Management fee	250	32,400	32,100	32,400	32,100
8.	Research Fund for P3GI	100	100	–	100	–
9.	Quality control charge	–	1,000	–	1,000	–
10.	VAT on quality control 10%	–	100	–	100	–
11.	Packaging fee incl. VAT10%	–	4,400	–	4,400	–
12.	VAT at distributor level	–	3,242	3,242	3,242	3,242
13.	Tax at distributor level	–	890	890	890	890
14.	VAT at wholesale level	–	1,159	1,159	1,159	1,159
15.	Tax at wholesale level	–	635	635	635	635
16.	Exploitation fee	–	30,448	36,400	35,448	41,400
	Price at factory	**244,409**	**318,500**	**318,500**	**323,500**	**323,500**

Source : Bachriadi 2003



Source: Bachriadi, 2003
Note: Data obtained from Table 2.6

Figure 3.2. Comparison of Sugar Price at the Domestic and International Market (Rp/kg)

market was liberalised to ensure that consumers could buy sugar at a lower price. In order to do that, after 1998, BULOG and its role to determine retail prices was removed. But the agency could still have some control over certain aspects of pricing policy. Importers and domestic sugar producers include the fees they pay to BULOG (such as management fees, fee for research on cane sugar, banking fee, farmers' fund, etc) in setting the price. However, market forces play a greater role in pricing, and the market is dominated by speculators while consumers remain the victims of such a system. Farmers have also become victims of such a situation as described in Section 3.3.

3.3 Protection for Domestic Producers

From the perspective of consumer protection, a higher sugar price may be acceptable if the profit margin is reinvested back into domestic sugar production by providing economic incentives to cane farmers and developing more efficient technology for sugar factories. Consumers may be willing to buy domestic sugar even if the price is higher than imported sugar if they are sure that the profits would be used to ensure sustainable sugar supply, contribute to farmers' welfare and overall sustainable sugar consumption as part of a broader mission of national food security.

BULOG was supposed to ensure all of the above, or at least to ensure the welfare of farmers and sustainability of domestic sugar mills. In order to achieve the above goals, BULOG should have provided economic incentives to both farmers and domestic sugar mills as well as control imports. But it only was able to control imports, while failing to achieve the other objectives mainly due to abuses driven by personal economic and political gain. It has been treated as a "cash cow" by the political elite both during the New Order Era and the reform era after 1998[4]. As a result, BULOG failed to protect and support cane farmers.

In fact, sugar pricing policy both before and after 1998 has not increased the economic benefits of farmers. Before 1998, as stated in Chapter II, cane farmers were forced into the TRI system, which basically is a form of contract farming. The government provided credit and farmers had to sell their sugar to state owned companies, at prices determined by the government. Based on Decree of the Agriculture Ministry No. 03/1987, farmers received 62% of the milled sugar if the *rendement* of their can crops was less than eight per cent. If the *rendement* was between eight to 10%, they get 67% and a *rendement* of more than 10% would fetch 72% (Bachriadi 1995a).

However, the money they bring home is less than the supposed payment for the amount of sugar sold to the sugar mills. There were various legal and illegal fees that farmers had to pay such as for transportation, loan interest, farmers' co-operatives, BULOG fees, village head fees, etc. When all these fees were deducted in all farmers received only 66% of the supposed income from their crops (Iswantoro, 1989; Bachriadi 1995a).

The situation did not improve after 1998, despite the changes in policy driven by IMF conditionalities. This is evident from the share of profits arising from the sugar trade. Based on the figures in Table 3.2., the profit margin of distributors and retailers (so called non-farmer margin) was 104.6% in 1998. This was a drastic increase from the 42 to 77% profit margin between 1976 and 1997. On the other hand the profit margin for the government i.e. through BULOG has decreased from 27% during 1976-1986 to 25.9% in the next decade and then even lower to 19.3% in 1998 (Bachriadi, 1995 and 2003). It must be noted that the government/ BULOG margin is the difference between the price paid to farmers and the price of sugar sold to distributors. That means that the income received by BULOG is to be paid to farmers, although fees and charges are deducted from the real amount. Considering the disparity in the profit margin, it is clear that profits from the lucrative sugar trading system in Indonesia benefits distributors, importers and retailers more than it does farmers.

Given the above situation, it is no wonder that many farmers opted to switch to other crops when the IMF conditionalities helped to abolish the TRI program. There is no data on how many farmers have stopped planting cane but the decline in the area of cane cultivation presented in Table 2.1. can be used as an indicator.

Those farmers who continued to plant sugar cane faced serious economic problems. They are no longer provided with soft loans as in the past. Currently they can get credit at commercial interest rates only. Not many farmers have access to this, and for those who do, the disbursement is often late. Secondly, the subsidy for fertiliser

[4] Several studies discuss the role of BULOG as an economic machine for political interests (Robinson, 1986; Crouch, 1988 and Mas'oed, 1989). Several cases of the manipulation and abuse of funds in BULOG have also been revealed; see Kompas 26 May 2000; Media Indonesia 24 August 2000 and others. See also the comprehensive report of this study by Bachriadi 2003.

and pesticides has been removed (see Section 2.3.), leading to increase in production cost, and reduced profits.

At a glance, successful cane farmers can now benefit more because they are no longer obliged to sell their crops to state owned sugar mills. But they still need to pay the mills for processing their crops; they do this through product sharing i.e. they get 66% of the sugar milled out of their crops, while the mill gets 34% as a payment for milling it. But, the influx of imported sugar meant that farmers could not sell their crops, either raw or milled sugar, at a reasonable price. They have to compete with the lower prices of imported sugar, even if the government slaps between 20% and 25% tariff on imported sugar. Farmers say that they can survive if the tariff is set at 110% and if smuggling is eliminated. It is important to note that there is also no record that BULOG provided funding for the revitalisation of cane plants through development of improved varieties and on farm technology so that farmers can produce sugar cane in a more efficient manner at lower cost.

It must be noted that many sugar cane growers are smallholders who do not have enough capital to expand their crops or to own their own sugar milling devices. Thus to get additional income, farmers now market their sugar directly to distributors or local shops near the milling site. This is one of the reasons for disparity in sugar distribution, as most of the sugar mills are in Java.

In addition to farmers, there is the issue of protection of domestic sugar factories. The government, through BULOG, has also not protected them through tariff or funding to develop improved technology to increase efficiency. Finally, not even consumers are protected. The liberalisation of the sugar trade was to ensure that consumers could buy sugar at a lower price and that supply would be guaranteed. Both have not materialised even after 1998 as has been discussed in other sections.

Thus before or after 1998, the beneficiaries of a number of policies were BULOG and its associate importers. For some time, domestic sugar companies might also benefit from some policies. But farmers and consumers definitely do not benefit from either nationally driven or internationally driven policies.

It is clear that neither the government nor the IMF are interested in protecting local consumers and farmers and domestic sugar producers. They are more interested in promoting trade in sugar for the benefit of local importers and the international market. Even if there is a restructuring of sorts and consumers can get sugar at lower prices, the farmers and local producers, who are also consumers themselves, would still be at a disadvantage. Clearly, a more humane and local based structural reform is needed.

Chapter IV Conclusions and Recommendations

4.1 Conclusions

(i) Both national and international driven policies on sugar production, trading and distribution system is unfair to consumers and cane farmers; rather they benefit importers, distributors and retailers, and to a certain extent national sugar factory owners.

(ii) International driven policies on sugar trade, particularly imposed by the IMF, have harmed the potential to revive the declining national sugar industries by further weakening the national capacity to produce sugar. Instead of reforming the flaws in national sugar policies to ensure the revival of national sugar production, IMF driven policies have pushed the national sugar production almost to the edge of collapse. Such policies include market liberalisation and the dismantling of government control in the distribution and trading system, leaving the sugar trade to speculators and market forces, at the expense of consumer protection.

(iii) International trade regulations such as the WTO might have impact on the national sugar production and consumer protection, but in the case of Indonesia they are almost irrelevant as the IMF induced policies have created a WTO Plus situation in the country. The issue of elimination of subsidies and opening up of market access in sugar under the Agreement on Agriculture of the WTO are no longer applicable as Indonesia has liberalised its sugar market and eliminated subsidies for cane farmers and domestic sugar factories.

(iv) If the current situation persists Indonesia will face a collapse of its national sugar production system and a more serious problem of food insecurity. The country will be more and more dependent on sugar imports, with all its associated problems of price fluctuation and instability in supply. It will have to face social problems arising from the collapse of the national industry in the form of farmer and labour unrest.

4.2 Recommendations

(i) The government of Indonesia should formulate an integrated policy for national sugar production and trading system which benefits consumers, farmers and sugar producers. This policy must be implemented in a comprehensive and integrated manner involving synergies in the policies enacted by the Ministry of Agriculture, Ministry of Finance, Ministry of Trade and Industry, BULOG, consumers association, cane growers association and sugar factories association. Such a policy can be formulated and implemented if the national database on production, consumption, stock, etc is improved.

(ii) An important part of the national sugar policy is the temporary protection of small cane farmers and national sugar factories.

The government must decide on a transition period to undertake the following actions:

- Implement a programme to improve and constantly develop on farm technology for cane growing
- Implement a programme, together with sugar factories, to improve and renew sugar production technology
- Develop sugar cultivation and sugar factories in appropriate areas outside Java to address the disparity in national sugar supply
- Raise import tariff for a few years until the domestic sugar industry is revived, become efficient and can compete at the international market
- Curb and control sugar smuggling - enforce the law more effectively.

(iii) Develop a distribution and trading control system to ensure even distribution of sugar to consumers in the most remote areas, at relatively stable prices. BULOG or whatever agency assigned to do this must be made to operate in a transparent manner, free from manipulation by political elite and accountable to the public. This could have been part of the IMF Exit Strategy, as Indonesia headed towards terminating its structural adjustment programs with IMF on December 31, 2003.

(iv) The government, together with the national sugar producers and consumers, need to formulate positions and policies in anticipation of further sugar market liberalisation particularly through the WTO and bilateral trading relations.

(v) Consumers groups need to be actively involved in formulating national sugar policies, educating consumers during the transition period, and to advocate for national sustainable sugar consumption pattern.

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APPENDIX 1

STRUCTURAL ADJUSTMENTS ON SUGAR TRADE and BULOG ON Memorandum on Economic and Financial Policies[1]

I. Jakarta, Indonesia October 31, 1997

40. .....

41. ... The government intends to phase out import and marketing monopolies and prices controls on agriculture commodities except for rice, sugar, and cloves over the next three years. ...

II. Jakarta, Indonesia January 15, 1998

31. .....

32. The government has already made considerable progress toward the strategy's objectives. In November, a major step was taken toward opening up the economic and increasing competition, when Bulog's import monopoly over wheat flour, soybeans, and garlic were eliminated. To ensure that final consumers obtained maximum benefit from this reform, importers were allowed to market all of these products domestically, except wheat (until recently; see paragraph 44 below). Similarly, to ease the adjustment costs for farmers, tariffs were simultaneously introduced on all of these products, but these rates were limited to 20 percent or less, and will be reduced to 5 percent by 2003.

42. .....

43. ... Also, effective the same date, all traders will be allowed to import sugar and market it domestically, while farmers will be released from the formal and informal requirement for the forced planting of sugar cane. ...

III. Jakarta, Indonesia April 10, 1998

10. .....

11. To achieve the program's budgetary objective the Government has taken the following steps: (i) subsidies remain limited to a few items that have a large weight in the consumption baskets of low income groups, and the subsidies are being contained by large price increases for several food items, petroleum products and electricity....
...

13. The government remains fully committed to the structural reforms set out in the January Memorandum of Economics Policies. However, implementation has lagged in some areas and difficulties with implementation encountered in others, notably the elimination of certain restrictive marketing arrangements and the operations of Bulog.
...

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[1] MEFP is an attachment of LoI between the government of Indonesia and IMF, which describes the policies that Indonesia intends to implement in the context of its request for financial support from IMF.

APPENDIX 2

REGULATION ON SUGAR TRADE

① TENURE OF PRESIDENT SUHARTO

Decree of Minister of Trade & Industry No. 348/MPP/Kep/7/1998

Minister : Mohamad "Bob" Hasan
Content : Granulated sugar production of PT PN and RNI is only to be sold to Bulaog for distribution.
Importers : 800

Decree of Minister of Trade & Industry No. 349/MPP/Kep/7/1998

Minister : Mohamad "Bob" Hasan
Content : Minister of Trade & Industry fixes selling/buying prices of granulated sugar between Bulog and PT PN / RNI, farmers and other producers.

Importers ⇒ Bulog ⇒ Distributors ⇒ Retailers

TENURE OF PRESIDENT B.J. HABIBIE

Decree of Minister of Trade & Industry No. 505/MPP/Kep/10/1998

Minister : Rahadi Ramelan
Content : Minister of Trade & Industry regulates the trading and distribution granulated sugar produced by PT PN / RNI. Farmers' production sold direct with priority to cooperatives, small/medium-scale enterprises.
Importers : 1,000

Decree of Minister of Trade & Industry No. 364/MPP/Kep/8/1999

Minister : Rahadi Ramelan
Content : Import trade regulation. Director-General of Foreign Trade is authorized to appoint producer importers (IP), whose number and categories are determined by Minister of Trade & Industry.

Importers ⇒ Distributors ⇒ Retailers

TENURE OF PRESIDENT ABDURRAHMAN WAHID

Decree of Minister of Trade & Industry No. 717/MPP/Kep/12/1999

Minister : Jusuf Kalla
Content : Revocation of import trade regulation. Importer: general importers.
Importers : 180

Decree of Minister of Finance No. 568/KMK.01/1999

Minister : Bambang Soedibjo
Content : Import tariff is fixed: 20% on cane sugar and industrial sugar, 25% on brown/white sugar and retail sugar in the market.

Decree of Minister of Finance and Minister of Trade & Industry No. 135.KMK.05/2000

Minister : Bambang Soedibjo and Luhut Binsar Panjaitan
Content : Tariff facilities of 0-5% on products with sugar content.

Importers ⇒ Distributors ⇒ Retailers

TENURE OF PRESIDENT MEGAWATI SOEKARNOPUTRI

Decree of Minister of Trade & Industry No. 456/MPP/Kep/6/2002

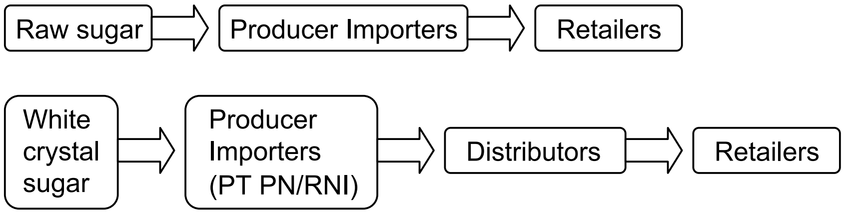
Minister : Rini Soewandi
Content : Raw sugar import trade regulation.
Importers : 10

Decree of Minister of Finance No. 324/KMK.01/2002

Minister : Boediono
Content : Change of tariffs to Rp550/kg on raw sugar and Rp700/kg on white sugar.

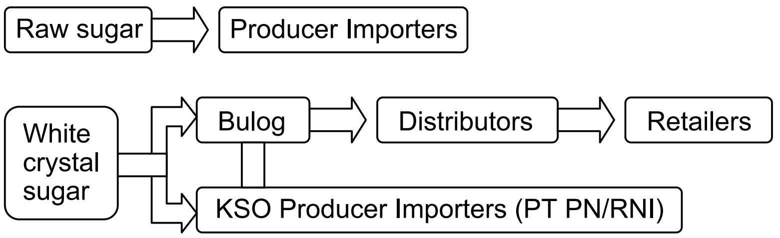
Decree of Minister of Trade & Industry No. 643/MPP/Kep/9/2002

Minister : Rini Soewandi
Content : New sugar trade regulation. Sugar import rights are only granted to PT PN/RNI.
Raw sugar
Producer Importers



Decision of Meeting, department of Trade & Industry, February 5, 2003

Content : PT PN/RNI import sugar with Bulog in joint cooperation (KSO). Bulog act as a buffer stock agency.



Source: Tempo 10 March, 2003

APPENDIX 3

Price Ladder
Cost from Port to retail (RP/ton)

1. PORT

Price of imported sugar (US$1 = Rp9,000):
US$231 per ton + insurance 0.30% = **Rp2,085,237**
(depending on bid price)

Taxation	
• Import Duty	700,000
• WAT 10%	278,52
• Income tax 2.5%	69,631
• Opening LC Provision 0.25%	5,213
• Quarantine	135
Warehouse and Miscellaneous	
• Ship's manifest	50,000
• Warehouse lease and loading/uploading	20,000
• Bank cost 2% (2 months)	47,080
• Credit Provision 1%	22,549
• Transport Depreciation 0.5%	11,275
• Survey cost (Sucofindo)	135
Total Landed Cost	**3,289,779**

2. PRODUCER

Revitalisation	
• Farmer	37,500
• Producer	37,500
• Operational	25,000
Management Fees	
• Bulog	50,000
• Safety funds	25,000
Total	**3,464,779**

3. TO CONSUMER

• Big and Middle Trader 5%	3,638,018
• Transport cost	200,000
• Loading/uploading	50,000
Total Price of Middle Traders	**3,888,018**
• Retailer 7,5 %	4,179,619
• Packaging	100,000
Total	**3,464,779**
Bank Interest and Depreciation 2%	**85,590**
Price at Retailer	**Rp4,365,209**

Source: Tempo 10 March 2003

APPENDIX 4

Retail sugar prices in various Indonesian towns (Rupiah per kg)

Table A. April to December 1997

1997	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Indonesia	1534	1578	1574	1568	1561	1561	1567	1584	1581
Banda Aceh	1520	1500	1500	1500	1525	1540	1500	1500	1500
Medan	1500	1500	1500	1500	1500	1517	1550	1583	1592
Pekan Baru	1500	1525	1550	1570	1600	1600	1600	1600	1600
Padang	1520	1600	1600	1600	1600	1600	1600	1600	1520
Jambi	1450	1475	1463	1455	1463	1470	1472	1500	1500
Palembang	1500	1550	1525	1500	1500	1500	1500	1500	1500
Bengkulu	1520	1600	1525	1500	1500	1500	1538	1550	1550
Bdr Lampg	1460	1475	1500	1500	1500	1500	1500	1500	1500
Jakarta	1544	1594	1594	1594	1594	1594	1594	1600	1600
Bandung	1500	1523	1530	1530	1530	1530	1530	1530	1530
Semarang	1447	1433	1467	1500	1468	1450	1465	1490	1466
Yogyakarta	1463	1533	1417	1497	1479	1477	1492	1500	1500
Surabaya	1450	1550	1500	1500	1500	1500	1500	1500	1500
Pontianak	1513	1537	1554	1550	1550	1550	1550	1600	1600
Samarinda	1600	1600	1600	1600	1600	1600	1600	1600	1600
Banjarmasin	1490	1600	1575	1540	1500	1500	1550	1550	1530
Plkraya	1600	1650	1600	1600	1600	1600	1600	1600	1600
Manado	1550	1575	1600	1600	1600	1560	1550	1563	1600
Palu	1510	1600	1600	1600	1600	1600	1600	1600	1600
Kendari	1620	1700	1700	1700	1700	1700	1700	1700	1700
Makassar	1500	1500	1500	1500	1500	1553	1600	1600	1587
Denpasar	1430	1600	1600	1510	1400	1460	1463	1500	1500
Mataram	1513	1584	1588	1580	1528	1500	1525	1619	1580
Kupang	1780	1800	1800	1800	1800	1710	1700	1700	1700
Ambon	1600	1650	1650	1650	1650	1650	1650	1650	1690
Jayapura	1650	1650	1650	1650	1650	1650	1650	1700	1700
Dilly	1700	1700	1700	1700	1717	1773	1773	1833	1803
Highest	1780	1800	1800	1800	1800	1773	1773	1833	1803
Lowest	1430	1433	1417	1455	1400	1450	1463	1490	1466
St. Deviation	81	79	82	79	88	80	76	80	81

Source: "Final Evaluation Report - Rice and Sugar Policy in Indonesia", Economic & Social Research Board, Faculty of Economics - University of Indonesia and YLKI.

Table B. January - October 1998

1998	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Indonesia	1723	1836	1715	2154	2285	2368	2802	3599	3891	3785
Banda Aceh	1775	2025	1700	2200	2175	2270	2600	3400	3780	3825
Medan	1893	1970	1702	1993	2285	2312	3035	3763	4052	3850
Pekan Baru	1650	1950	1760	2300	2300	2360	3000	4275	3980	3775
Padang	1700	2150	1800	2250	2375	2460	3075	3950	3980	3775
Jambi	1581	1638	1600	2125	2219	2280	2713	3400	3780	3600
Palembang	1563	1675	1663	2075	2250	2400	2825	3600	3760	3500
Bengkulu	1550	1863	1700	2213	2363	2430	2813	3850	3800	3675
Bdr Lampg	1700	1825	1600	2075	2175	2220	2425	3000	3480	3500
Jakarta	1936	2028	1751	2226	2439	2495	2948	3848	3989	3733
Bandung	1840	1935	1734	2110	2308	2384	2820	3710	4052	3755
Semarang	1725	1855	1618	2035	2263	2348	2768	3648	3796	3570
Yogyakarta	1767	1808	1630	2021	2175	2287	2754	3200	3200	3358
Surabaya	1665	1630	1580	2000	2150	2200	2770	3523	3668	3510
Pontianak	1750	1838	1700	2100	2175	2400	2875	3750	3960	4125
Samarinda	1600	1750	1800	2150	2350	2440	3050	3800	4100	3875
Banjarmasin	1550	1675	1700	2275	2300	2400	2700	3800	3780	3675
Plkraya	1850	2025	1720	2250	2406	2500	2950	3588	4090	3800
Manado	1600	1662	1683	2200	2200	2200	2250	3000	3760	3875
Palu	1825	1925	1720	2200	2375	2380	3025	3775	4260	4025
Kendari	1767	1800	1840	2200	2275	2413	2892	3638	4167	4150
Makassar	1600	1600	1600	2050	2225	2260	2650	3425	3768	3939
Denpasar	1875	1725	1640	2100	2275	2360	2800	3675	3880	3525
Mataram	1813	1850	1723	2194	2360	2413	2944	3675	4063	3731
Kupang	1663	1913	1770	2200	2350	2400	2675	3500	4000	3750
Ambon	1700	1813	1900	2175	2275	2520	2825	3638	3890	4150
Jayapura	1700	1750	1780	2350	2425	2500	2750	3325	3660	3813
Dilly	1879	1904	1900	2083	2238	2298	2700	3417	4373	4333
Highest	1936	2150	1900	2350	2439	2520	3075	4275	4373	4333
Lowest	1550	1600	1580	1993	2150	2200	2250	3000	3200	3358
St. Deviation	113	138	85	93	82	91	185	273	236	227

Source: "Final Evaluation Report - Rice and Sugar Policy in Indonesia", Economic & social Research Board, Faculty of Economics - University of Indonesia and YLKI.

Table C. July 24, 2003

2003	24 July
Indonesia	4439
Banda Aceh	3400
Medan	4000
Pekan Baru	3700
Padang	3500
Jambi	3775
Palembang	3500
Bengkulu	4000
B. Lampung	4700
Jakarta	4500
Bandung	4300
Semarang	5380
Yogyakarta	4600
Surabaya	4400
Pontianak	3100
Samarinda	5200
Bjarmasin	4500
PLKRaya	4300
Manado	4750
Palu	5000
Kendari	5000
Makassar	5100
Denpasar	4400
Mataram	4300
Kupang	5000
Ambon	5000
Jayapura	6000
Highest	6000
Lowest	3100

Source: Sugar Observer, July 24, 2003

APPENDIX 5

Comparison of Sugar Prices in Indonesia, 1976-2002

(Average in Rp/kg)

Year	Type of Prices						
	Provenue (price submitted to Farmers)	**Selling Price of sugar mills/ Bulog**	**Wholesale Price**	**Retail Price**			**International Price**[4)]
				Rural[1)]	**Urban**[2)]	**Average**[3)]	
1976	109,1	159,5	181,5	190,7	195,6	193,1	67,6
1977	134,3	165,9	194,8	204,0	209,6	206,8	N/A
1978	155,6	177,0	219,3	227,3	234,2	230,7	110,9
1979	188,0	N/A	253,4	263,3	270,3	266,8	204,8
1980	225,5	278,6	325,0	345,7	350,9	348,3	409,5
1981	350,0	443,3	499,9	541,7	548,5	545,1	192,3
1982	350,0	456,0	518,8	556,6	562,3	559,4	96,9
1983	350,0	456,0	526,9	568,3	576,8	572,6	159,9
1984	400,0	504,5	N/A	598,8	620,2	609,5	75,9
1985	425,0	529,0	N/A	630,6	650,9	640,8	115,6
1986	425,0	531,0	634,1	661,5	664,6	663,1	198,6
1987	467,5	579,6	656,6	732,0	705,5	718,8	333,2
1988	514,3	640,6	731,6	793,2	778,3	785,7	414,2
1989	600,0	743,0	847,9	900,0	896,6	898,3	508,9
1990	650,0	829,8	928,1	1.057,4	1.047,4	1.052,4	526,5
1991	708,0	902,2	1.022,5	1.149,3	1.136,3	1.142,8	391,3
1992	792,0	987,1	1.068,2	1.235,9	1.236,9	1.236,4	411,0
1993	792,0	N/A	1.110,9	1.321,4	1.292,0	1.306,7	466,1
1994	792,0	1.055,9	1.193,5	1.361,3	1.299,3	1.330,3	583,7
1995	910,8	1.139,4	1.225,1	1.559,7	1.441,0	1.500,3	673,8
1996	960,8	1.194,4	1.245,6	1.630,1	1.503,5	1.566,8	630,7
1997	960,8	1.194,4	1.244,6	1.666,6	1.550,9	1.608,8	1.161,1
1998 (1)[5)]	1.450,0	1.658,4	2.039,4	2.834,4	2.825,1	2.829,8	1.566,0
1998 (2)	1.650,0	2.100,0	N/A	4.061,5	3.961,1	4.011,3	1.566,0
1998 (3)	2.100,0	2.444,1	N/A	3.802,9	3.571,9	3.687,4	1.566,0
1999	2.500,0	–	2.866,4	3.105,8	N/A	3.105,8	973,1
2000	2.600,0	–	3.225,0	3.089,3	3.048,8	3.069,0	2.117,2
2001	N/A	–	N/A	3.946,7	3.851,3	3.899,0	1.732,0
2002	N/A	–	N/A	N/A	3.462,1	3.462,1	1.456,1

Notes:
1) Retail prices in rural area during 1975-1986 are represented by prices in Java Island.
2) Average urban retail price in 2000-2001 is based on data of General Directorate of Domestic Trade, as cited in *Kompas*, 8 November 2002.
3) Average price in 2002 is based on Indonesian Sugar Council, as cited in *HU Kompas*, 7 September 2002.
4) The prices are converted to Rupiah using the currency at respective year, at Bank Indonesia's rate
5) During 1998, three provenue prices are set: in April, July and September 1998. The wholesale prices mentioned are the prices in July and the average price during August to December 1998.

Source:
1. Decrees of Ministry of Finance of Indonesia in 1980-2000; Decrees of Ministry of Trade and Industry of Indonesia in 1998; Decrees of Ministry of Forestry and Plantation in 1999-2000 which all concern on the provenue price and domestic sugar selling price at sugar mills; as well as Internal Letter of the Head of Bulog to all its subsidiaries at district level in 1998 about domestic provenue price.
2. *Statistik Harga Konsumen Pedesaan Kelompok Bahan Makanan di Jawa 1976-1983* (BPS, 2002); *Statistik Harga Konsumen Pedesaan di Jawa 1983-1995 dan Sepuluh Provinsi Luar Jawa 1987-1995* (BPS, 1996); *Statistik Harga Konsumen Pedesaan di Indonesia 1995-2001* (BPS, 2002).
3. Weekly reports of Bank of Indonesia since March 1975 through February 2002.
4. *Statistics of Trade,* November 1991, and *Statistics of Trade and Industry,* December 1995 and December 2000, Ministry of Trade and Industry of Indonesia
5. 'Arus Kas Pabrik Gula Mulai Terganggu', *HU Kompas* 7 September 2002; 'Kekuarangan Pasokan ataukah Importir Buntung Untungnya', *HU Kompas* 8 November 2002; 'Harga Gula di Dalam Negeri Bergerak Naik', *Business News* 30 October 2000.

APPENDIX 6

Ratio Margin in Indonesia, 1976-1998

(%)

Year	Government Margin[1]	Wholesalers Margin[2]	Retail Margin[3]	Non-farmers Margin[4]	Distribution Margin[5]	[6]	Retail domestic price, compared to international price[7]
1976	46,3	13,7	6,4	77,0	21,0	135,96	185,61
1977	23,5	17,4	6,2	53,9	24,7	N/A	N/A
1978	13,8	23,9	5,2	48,3	30,4	59,65	108,13
1979	N/A	N/A	5,3	41,9	N/A	N/A	30,24
1980	23,5	16,6	7,2	54,4	25,0	(31,97)	(14,94)
1981	26,6	12,8	9,0	55,7	23,0	130,46	183,41
1982	30,3	13,8	7,8	59,8	22,7	370,44	477,16
1983	30,3	15,6	8,7	63,6	25,6	185,19	258,10
1984	26,1	N/A	N/A	52,4	20,8	564,97	703,47
1985	24,5	N/A	N/A	50,8	21,1	357,60	454,24
1986	24,9	19,4	4,6	56,0	24,9	167,44	233,93
1987	24,0	13,3	9,5	53,7	24,0	73,95	115,70
1988	24,6	14,2	7,4	52,8	22,7	54,65	89,69
1989	23,8	14,1	5,9	49,7	20,9	46,01	76,53
1990	27,7	11,9	13,4	61,9	26,8	57,59	99,87
1991	27,4	13,3	11,8	61,4	26,7	130,54	192,02
1992	24,6	8,2	15,7	56,1	25,3	140,17	200,82
1993	n.a	N/A	17,6	65,0	N/A	N/A	180,37
1994	33,3	13,0	11,5	68,0	26,0	80,89	127,91
1995	25,1	7,5	22,5	64,7	31,7	69,10	122,67
1996	24,3	4,3	25,8	63,1	31,2	89,38	148,43
1997	24,3	4,2	29,3	67,4	34,7	2,86	38,55
1998 (1)	14,4	23,0	38,8	95,2	70,6	32,02	124,11
1998 (2)	27,3	N/A	N/A	143,1	91,0		
1998 (3)	16,4			75,6	50,9		
Average							
’76-’86	**27,0**	**16,7**	**6,7**	**55,8**	**23,9**	**215,5**	**261,9**
’87-’97	**25,9**	**10,4**	**15,5**	**60,4**	**27,0**	**74,5**	**126,6**
1998	**19,3**	**23,0**	**38,8**	**104,6**	**70,8**	**32,0**	**124,1**

[1] Margin ratio of Bulog’s Af-Pabrik price as compared to Provenue prices [Margins enjoyed by the Government]
[2] Margin ratio of large wholesalers’ prices as compared to Bulog’s Af-Pabrik prices [Distributor / Wholesalers trade margin]
[3] Margin ratio of Average Retail Price as compared to Wholesaler Prices [Retail Margin]
[4] Margin ratio of Average Retail Price as compared to Provenue prices [Non-farmers’ Margin]
[5] Margin ratio of Average Retail Price as compared to Bulog’s Af-Pabrik price [Distribution Margin]
[6] Differential Ratio between Bulog’s Af-Pabrik prices and international sugar prices
[7] Margin Ratio of Domestic Average Retail Prices as compared to international sugar prices [Distribution Margin / Trade of Imported Sugar]

APPENDIX 7

Scheme of Price Margin Distributions in Indonesian Sugar Trade, 1976-1998
Note: calculated from the Table of Prices, 1976-1997