

CURRENT SITUATION OF RICE DISTRIBUTION SYSTEM IN INDONESIA

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SUMMARY

Indonesia suffered a poor harvest for 2 consecutive years (1997~98) as a result of a drought caused by El Niño. Due also to the economic/political crisis that occurred around the same time, the rice distribution market has become confused. Together with increases in the numbers of the poor, a jump in the rice price and a rice shortage combined to cause a social problem. In this report, we have analyzed the impact of the drought and the economic crisis on rice distribution, the measures taken by the Indonesian government in response thereto and the emergency assistance from Japan, and examined, as future questions, the role of the government sector, what nature the program for the poor should take, the rice import policy and the question of development of food statistics.

INTRODUCTION

1. BACKGROUND AND PURPOSES OF THE RESEARCH

During 1997~98, in Indonesia, a bad harvest caused by a drought and the monetary/economic crisis and social disorder combined to throw the rice distribution market into disorder. The rice shortage temporarily led to a social problem. The Indonesian government imported some 6 million tons of rice, including rice as assistance from Japan, and started providing rice to the rapidly increasing number of poor people with the cooperation of international agencies, etc. From the viewpoint of social stability, ensuring the smooth provision of rice to the population continues to be an important task, both for Indonesia and donor countries including Japan.

In the present research, we aim to analyze the impact of the drought and the economic crisis on rice distribution in Indonesia, the measures taken by the Indonesian gov-

ernment in response thereto and donors' assistance including the emergency assistance from Japan, and to consider future issues.

2. METHOD OF RESEARCH

After conducting a preliminary study in October 1998, a study team was organized consisting of Director Dr. Saragih, Deputy Director Dr. Tampubolon, etc., of the Center for Development Studies, Bogor Agricultural University, which collected macro data and conducted a field survey between November 1998 and January 1999. In this research, due to various constraints, we limited our survey to Jakarta, the largest rice consumption center, West Java, a rice-exporting province in Java Island, South Sumatra, a rice-exporting province, and Lampung, a rice-importing province, in the outer islands (see the map). Moreover, Hitoshi Yonekura, former Senior Research Fellow at the Institute of Developing Economies, Japan External Trade Organization (at present, professor at the Department of Agricultural Studies, Graduate School, Tohoku University) conducted a complementary survey. In February 1999, clarification workshop was held in Bogor to examine the draft report of the study team. We continued to gather the data and conduct hearings with the relevant agencies to follow the latest development. The contents of the present research only cover the period up to July 1999, and the discussion of the rice production aspect is kept to a minimum since the present research focuses on distribution aspects.

3. STRUCTURE OF THE REPORT

This report consists of the following 4 chapters. In Chapter 1, we will survey the outline of rice distribution in the private and public sectors respectively. In Chapter 2, we will analyze the impact of the drought and the economic crisis, focusing on the change in the volume of production and distribution of rice and the change in the rice price. In

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Chapter 3, we will give an outline of the response by the Indonesian government and the present situation of rice distribution, as well as the rice assistance from Japan. In Chapter 4, we will discuss issues to be tackled in the future in order to ensure the smooth distribution of rice.

CHAPTER 1: OUTLINE OF RICE DISTRIBUTION

In this chapter, we aim to survey the structure of rice distribution*² in Indonesia. We will analyze the respective roles of the private and government sectors and will also mention the volume of rice distribution.

1-1 STRUCTURE OF RICE DISTRIBUTION

In Indonesia, rice is distributed from farmers as producers to consumers mainly through the private sector. In the gov-

ernment sector, on the other hand, the National Logistics Agency (Badan Urusan Logistik: BULOG) strives to stabilize the rice price by purchasing rice and releasing it onto the market and provides rice to public servants and the poor.

Table 1-1 shows the estimates of how much rice is distributed in the private and government sectors respectively. Since statistics with respect to the volume of rice distribution are not well recorded in Indonesia, only very rough ratios can be estimated. According to FAO/WFP, it is necessary to produce some 53 million tons of paddy rice (some 33 million tons in terms of milled rice) for Indonesia to become self-sufficiency in rice production. Based on these figures, it can be assumed that about 20 million tons (excluding household consumption by farmers and seeds/feed use) are distributed throughout the country.*³ Since the volume handled by BULOG is usually 2 million to 4 million tons per year, 80% to 90% of the

Map

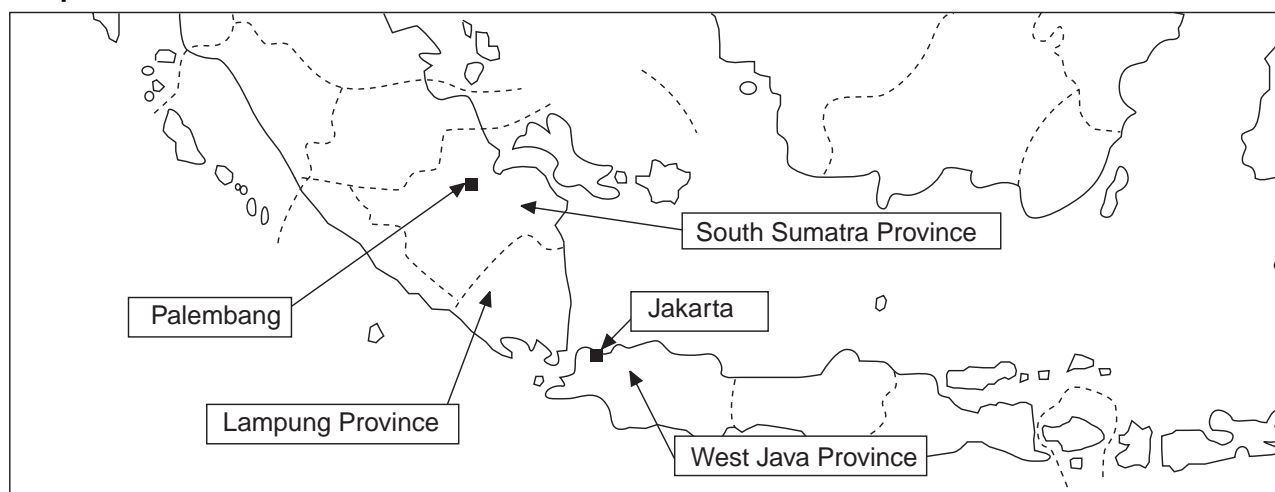


Table 1-1: Estimated volume of rice distribution (unit: million tons)

Item	Paddy rice	Milled rice
(i) Rice production	53 (100%)	33 (100%)
(ii) Self-consumption by farmers	16 (30%)	10 (30%)
(iii) Seeds/feed and loss	5 (10%)	3 (10%)
(iv) Distribution volume (= (i) - (ii) - (iii))		20 (60%)
of which: through the private sector alone		16~18 (about 80~90% of distribution volume)
of which: through the government sector		2 ~ 4 (about 10~20% of distribution volume)

Note: This table shows approximate ratios for the private and government sectors. Percentages in parentheses show the ratio to rice production (i). The conversion rate between paddy rice and milled rice is assumed to be 0.632.

Source: Estimated by the writers based on the press release from FAO's Japanese Office, Ellis (1993), etc.

*2 In this report, "rice" is used as a generic term covering both paddy rice and milled rice. At places where it is necessary to differentiate between "paddy rice" and "milled rice," either term is used accordingly.

rice distribution volume is broadly estimated to go through the private sector and 10% to 20% through the government sector.

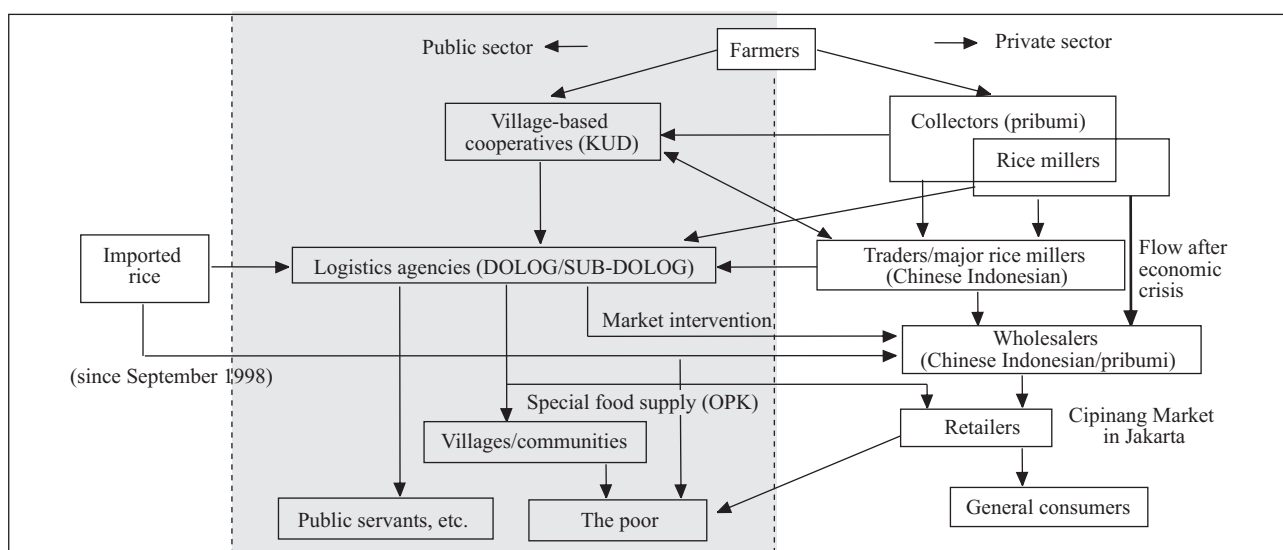
Next, Figure 1-1 shows the case of Karawang District, West Java, as a typical example. In the private sector, rice is usually distributed through collectors, millers, traders, wholesalers and retailers. On the other hand, rice is procured by BULOG through KUD (village-based cooperatives) and DOLOG/SUB-DOLOG (province/district logistics agencies). Before the liberalization of rice import in September 1998, the handling of imported rice was monopolized by BULOG. In the two other provinces (Lampung and South Sumatra) where a field survey was conducted this time, the basic distribution channels are the same as in West Java, although the scope of activities of rice millers and the size of distributors are different.

1-2 RICE DISTRIBUTION BY THE PRIVATE SECTOR

As mentioned earlier, rice is mainly distributed by the private sector in Indonesia. Let us give an outline of the distribution channels based on Figure 1-1, paying particular attention to the demarcation of roles between the Chinese Indonesian and pribumi.*4

Farmers dry paddy rice, usually in the sun, and sell it to rice collectors or rice millers. Between farmers and collectors/millers, fixed business relationships rarely exist and decisions as to whether or not to sell rice are made based on the purchase price. In many cases, collectors also serve as millers and farmers as collectors. Collectors and millers secure a sufficient quantity of rice by providing such services as offering a place for drying paddy rice and storing milled rice free of charge. Collectors and small to medium-

Figure 1-1: Rice distribution channels (example of Karawang District, West Java)



Source: A field research

*4 Usually, Indonesians distinguish themselves between pribumi and non-pribumi. Pribumi refers to native Malay Indonesian and non-pribumi mainly to Chinese Indonesian. In terms of citizenship, however, pribumi and Chinese Indonesian are both Indonesian nationals (JETRO (1996)).

size millers are usually pribumi, while most of the large-scale rice millers and wholesalers are Chinese Indonesian.

Milled rice is handed over to traders or local wholesalers and then sold to wholesalers or retailers both within and outside the province. While the activities of small to medium distributors, mostly pribumi, are likely to be limited to within provincial boundaries, the large distributors, mostly Chinese Indonesian, are engaged in distribution outside both the province and the district as well. Rice millers do not have a fixed business relationship with traders or wholesalers either. If transaction terms are met, business will be initiated with new distributors as well. Most business is carried out in cash and dealings on credit are rare even between distributors who have longstanding business relationships. Even in the event where credit is given, the credit period is a few days or a week at most.

Distribution of rice by the private sector is carried out mainly through business relationships based on open competition and the market mechanism. At the same time, there are cases where large-scale wholesalers of Chinese Indonesian, having rice mills and warehouses, are engaged in activities ranging from collection from outside the province/district to sales of rice to the consumers under their own brand names. There is no doubt that the Chinese Indonesian are playing a significant role in the distribution of rice in the private sector. However, in view of the fact that the volume of rice handled by a single large Chinese Indonesian distributor is by no means substantial*⁵ and that many small to medium size distributors are engaged in rice distribution activities which complement the function of these large-scale distributors, it does not seem appropriate to say that the Chinese Indonesian control the domestic distribution of rice in Indonesia.

As will be mentioned later, the activities of large-scale rice distributors, mainly the Chinese Indonesian, have shrunk due to the economic crisis in Indonesia. On the other hand, the impact of the crisis on small to medium size distributors, mainly pribumi, has been relatively slight and they have taken over the distribution activities which were carried out by large-scale distributors in the past. Taking into consideration the fact that the system of rice distribution in the private sector continues to be based on the market mechanism, it appears that the Chinese Indonesian are not in a position to enjoy a monopoly of the market.

In the distribution of rice in the private sector, the situ-

ation of the Cipinang Central Rice Market in Jakarta is significant. Almost 600 wholesalers are engaged in rice business in the rice market. The 5 to 10 large-scale wholesalers are under management of Chinese Indonesian, while most of the small to medium size wholesalers are pribumi. During the rice harvesting seasons, 2,200 to 3,000 tons of rice per day arrives from the West Java Province, Lampung Province, etc. The rice received is not only delivered to the city of Jakarta but also to outlying islands by large-scale wholesalers. At the Cipinang Market, no system of auction is in existence and the rice price is determined through bilateral negotiations between distributors. First, wholesalers check the quality of the rice brought in by traders, etc., and then enter into price negotiations. If agreement is not reached on the price, the trader starts negotiations with another wholesaler, repeating the process until agreement is achieved. Exchange of information among distributors is vigorous and the market price at Cipinang is determined through such bilateral negotiations. The daily market price at Cipinang serves as the barometer of the rice price nationwide.

1-3 RICE DISTRIBUTION BY THE PUBLIC SECTOR

Distribution of rice by the public sector comes under the jurisdiction of the National Logistics Agency (BULOG). BULOG was established in 1967 as an agency under the direct control of the President having the exclusive authority to purchase domestic rice and to handle imported rice. Since 1969, it has been engaged in the formulation of a price policy for the purpose of stabilizing the rice price and curbing inflation, as well as of protecting consumers and producers, by setting a lower limit on the producer price of rice and an upper limit on the consumer price. Since 1971, the agency has expanded the scope of its activities by obtaining the exclusive authority to import food stuffs other than rice (wheat, sugar, etc.).*⁶

During the 1970s, BULOG imported 0.5 million to 2 million tons of rice annually in order to fill the shortages of rice in the country. During the period of overproduction that ensued after self-sufficiency had been achieved in 1984, the Indonesian government/BULOG had a hard time maintaining the producer price and dealing with the rice surpluses,*⁷ and were thus compelled to adopt "sufficiency

*⁵ For example, even in the case of a large-scale Chinese Indonesian wholesaler at the Cipinang Central Rice Market in Jakarta, its monthly handling volume is only approximately 20,000 tons.

*⁶ For BULOG's operations during the 1960s~1980s, see Yonekura (1984), Shinoura (1993), Timmer (1987), Atmaja, et al. (1989), etc. For the operations during the 1990s, see Timmer (1996).

on trend”^{*8} as the policy objective. In the 1990s, as mentioned later, domestic rice production became sluggish due to the unstable weather, etc., and BULOG started to import rice again.

BULOG has provincial food logistics offices (DOLOG) which engage in activities within a specific province, and district logistics offices (SUB-DOLOG) which engage in activities in one or more districts within that province. DOLOG/SUB-DOLOG have about 1,500 warehouses all over the country with a storage capacity of about 3.5 million tons and are engaged in the business of rice distribution under the supervision of BULOG. Table 1-2 shows the number and storage capacity of each of BULOG’s warehouses per province located nationwide. The storage capacity is particularly large in Java Island and South Sulawesi, the main areas of rice production, and Jakarta, a major area of rice consumption.

As is shown in Figure 1-1 above, DOLOG/SUB-

DOLOG purchase milled rice from KUD (village-based cooperatives) and the private sector. KUD are government-initiated cooperatives established in the 1970s, one in each village, situated across the country for the purpose of promoting plans for increasing food production and agricultural development plans (originally called BIMAS and INMAS). KUD purchase paddy rice or milled rice from farmers and collectors at the floor price (the minimum purchase price)^{*9} set by BULOG. Paddy rice is milled and then sold to DOLOG/SUB-DOLOG at the set price. The floor price is set in January before the rainy-season harvest (March~April) and, is fixed for a year, applied even to the two dry-season harvests (July~August and October~December).^{*10} Not obligated to sell rice to KUD, farmers sell it to private collectors/millers when the purchase price in the private sector is favorable. DOLOG/SUB-DOLOG only purchase high-quality rice on the assumption of the need for long-time storage. This is one of the

Table 1-2: Number and storage capacity of warehouses owned by BULOG (1992)

Province	Number of warehouses	Storage capacity (tons)	Province	Number of warehouses	Storage capacity (tons)
Aceh	32	50,440	East Kalimantan	13	37,000
North Sumatra	50	149,050	South Kalimantan	15	36,500
Riau	20	44,600	Central Kalimantan	7	8,300
West Sumatra	16	28,500	North Sulawesi	21	52,300
Jambi	9	17,500	Central Sulawesi	14	24,500
South Sumatra	55	112,550	Southeast Sulawesi	12	18,500
Bengkulu	3	10,500	South Sulawesi	186	271,750
Lampung	39	60,900	Bali	23	44,000
Jakarta	104	370,500	West Nusa Tenggara	92	117,400
West Java	214	471,900	East Nusa Tenggara	62	46,600
Central Java	170	451,150	Maluku	14	30,800
Jogjakarta	10	21,000	Irian Jaya	21	45,200
East Java	349	981,050	East Timor	11	13,500
West Kalimantan	15	43,500			
			Total	1,577	3,559,540

Note: The figures for the number of warehouses and storage capacities were current as of the end of 1992, including 1,450 government warehouses and 128 leased ones.

Source: BULOG Annual Report 1996/1997

*7 The rice price fell in 1985 and the Indonesian government, despite its tight financial circumstances, purchased 2 million tons of domestic rice and exported 400,000 tons to the Philippines, etc., in the form of a loan in order to maintain the producer price.

*8 The concept that some surplus in bumper years and some shortage in lean years is unavoidable and that it is sufficient if self-support is achieved as a trend.

*9 The floor price used to be uniform nationwide but since January 1999, it has become different from region to region. The floor price of paddy rice in January 1999 was Rp 1,400/kg (Rp 2,310/kg for milled rice) for Java Island, Bali Island and South Sulawesi Province, Rp 1,450/kg for Sumatra Island, and Rp 1,500/kg for Kalimantan Island, North Sulawesi Province, Maluku and Irian Jaya.

*10 The price of milled rice (national average) was set at Rp 848/kg in January 1997 and was effective for one year until it was revised to Rp 961/kg in January 1998. Subsequently, it was revised to Rp 1,115/kg in April and further to Rp 1,650 in June as the market price rose sharply.

reasons why it is difficult for the public sector to secure rice in the event of a poor harvest.

The rice collected through DOLOG/SUB-DOLOG is delivered to the government under the direction and supervision of BULOG for the purposes, among others, of (i) distribution to public servants, military personnel, government plantations, etc., (ii) release to the market with a view to stabilize the consumer rice price, and (iii) supply to the poor. If domestically procured rice is insufficient, BULOG imports rice and store it in DOLOG/SUB-DOLOG warehouses. Rice stored at DOLOG/SUB-DOLOG is in part for reserve purposes and serves as a buffer stock.

Distribution to public servants, etc., has served as a stable outlet for purchased rice to support the producers' price. Although there is an argument that such distribution should be replaced by the provision of cash or that the scope of distribution should be more restricted, it is realistic to maintain the present system in the light of the fact that many public servants came to belong to the poor. In this connection, the issue of provision to the poor will be discussed in detail in Chapter 3.

BULOG releases rice onto the market when the market price exceeds the upper limit on the consumer rice price, which is set in consideration of market trends. In this release, the Delivery Order (DO) method is adopted. Bills called DO are issued to the designated distributor when it is confirmed that they have deposited the money for the purchase of rice with the designated bank, and the distributor receive rice by presenting the DO at a DOLOG/SUB-DOLOG warehouse. Although a standard for distributors qualified to obtain DO has been established, the criteria for selecting qualified distributors are not clear.

With regard to rice imports until 1998, BULOG was the exclusive importer. At present, BULOG selects importers through open tender. In the past, large Chinese Indonesian companies, such as the Salim Group were said to mainly conduct the rice import business on behalf of BULOG, using their subsidiaries in Singapore, etc.*¹¹ Chinese Indonesian distributors have a considerable influence over rice imports unlike in the case of domestic distribution.

1-4 DISTRIBUTION OF RICE BETWEEN ISLANDS

In Indonesia, movement between provinces, especially logistics between islands, is important in ensuring the smooth distribution of rice. Even if rice production is self-sufficient at the national level, it does not mean that the supply of sufficient rice throughout the country is achieved. Table 1-3 shows the annual per capita milled rice production for each province based on the population and actual production of paddy rice in 1995, identifying the provinces where the per capita production is lower than per capita consumption estimated by FAO/WFP for 1997 (149 kg p.a.). Since dietary habits differ from province to province*¹², it cannot necessarily be assumed that there is a rice shortage in the provinces where production is less than 149 kg p.a. However, among the 12 provinces (excluding Jakarta) where rice production was lower than 149 kg/capita/year, 7 provinces were pointed out as highly possible provinces of food shortage in the survey report of FAO/WFP published in April 1998. So, this table may provide an indicator of regions where rice shortages are likely to occur.

Rice is shipped to regions of rice shortages by the private and public sectors. It is not possible to ascertain the volume of inter-province transactions by the private sector due to lack of statistics. However, if one estimates the overall movement on the analogy of actual shipments by the government (actual business is managed by DOLOG), the trend can be assumed to be similar. Table 1-4 shows the planned and actual shipments of rice between islands by DOLOG for 1998/99 (April 1998~March 1999). Rice is shipped from Java Island and South Sulawesi, surplus regions, to Kalimantan, etc., regions short of rice.

More specifically, the notable feature is that while the shipments from South Sulawesi were substantially less than the planned and that while the overall volume of distribution declined, the shipments to Kalimantan Island increased slightly. The decline in the shipments from South Sulawesi have been caused by the effects of a poor harvest and by the fact that even if there was rice to sell, it was diverted to the private sector because the purchase price offered by the government was lower than the market price. It

*¹¹ Based on a hearing of Mr. Yasuyuki Matsumoto of the Central Cooperative Bank for Agriculture and Forestry; the Salim Group has, under its corporate umbrella of India food Corp, engaged in noodle making and, is seriously interested in the rice market which competes with noodles using wheat as the main ingredient from the viewpoint of deploying its own business. According to the Kompas newspaper dated September 8, 1998, approximately 70% of rice imported in fiscal 1997/1998 was through importers affiliated with the Salim Group.

*¹² It is said that starch from sago palms is the staple food for many of the inhabitants of Maluku and Irian Jaya.

Table 1-3: Per capita milled rice production by province in 1995

Province	Production of paddy rice (tons)	Milled rice equivalent (tons)	Population (thousand persons)	Per capita milled rice (kg)
Aceh*	1,368,074	864,623	3,848	224.69
North Sumatra	3,134,533	1,981,025	11,115	178.23
Riau	458,756	289,934	3,900	74.34
West Sumatra	1,829,192	1,156,049	4,323	267.42
Jambi	593,502	375,093	2,370	158.27
South Sumatra*	1,557,944	984,621	7,208	136.60
Bengkulu*	377,337	238,477	1,409	169.25
Lampung*	1,943,709	1,228,424	6,658	184.50
Jakarta	19,309	12,203	9,112	1.34
West Java	10,722,717	6,776,757	39,207	172.85
Central Java*	8,198,084	5,181,189	29,653	174.73
Jogjakarta	642,120	405,820	2,917	139.12
East Java	8,572,668	5,417,926	33,844	160.09
West Kalimantan	827,669	523,087	3,646	143.47
East Kalimantan	362,193	228,906	2,314	98.92
South Kalimantan*	1,189,062	751,487	2,893	259.76
Central Kalimantan*	378,129	238,978	1,627	146.88
North Sulawesi	397,113	250,975	2,649	94.74
Central Sulawesi	539,648	341,058	1,938	175.98
Southeast Sulawesi*	287,355	181,608	1,587	114.44
South Sulawesi*	3,727,081	2,355,515	7,558	311.66
Bali	831,172	525,301	2,896	181.39
West Nusa Tenggara*	1,235,882	781,077	3,646	214.23
East Nusa Tenggara*	419,929	265,395	3,577	74.19
Maluku*	35,151	22,215	2,087	10.64
Irian Jaya*	49,115	31,041	1,94	15.98
East Timor*	46,696	29,512	840	35.13

Note: Milled rice equivalents have been derived by multiplying production of paddy rice by 0.632. For the highlighted provinces, milled rice consumption per capita is lower than that for 1997, estimated by FAO/WFP (149 kg/year). The provinces with an asterisk are those for which a FAO/WFP's study report published in April 1998 indicated that there is a strong possibility of the occurrence of a food shortage.

Source: Statistik Indonesia 1995, Central Bureau of Statistics, FAO/WFP

Table 1-4: Actual rice shipments between islands by DOLOG (1998/99)

Shipments from \ Shipments to		(unit: 1,000 tons of milled rice)													
		Jakarta		West Java		Central Java		East Java		South Sulawesi		West Nusa Tenggara		Total	
		Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Java		0	0	0	0	0	0	9	0	60	0	0	0	69	0
Sumatra		28	75	3	0	64	4	276	66	101	7	4	0	476	152
Kalimantan		16	62	23	4	4	3	69	116	86	28	0	0	198	213
Sulawesi		0	2	0	0	0	0	52	62	13	16	0	0	65	80
Nusa Tenggara		0	5	0	0	0	0	38	45	4	0	29	0	71	50
Maluku		0	0	0	0	0	0	46	39	5	0	0	0	51	39
Irian Jaya		0	7	0	0	0	0	85	38	0	0	0	0	85	45
East Timor		0	5	0	0	0	0	8	28	20	6	7	0	35	39
Total		44	156	26	4	68	7	583	394	289	57	40	0	1,050	618

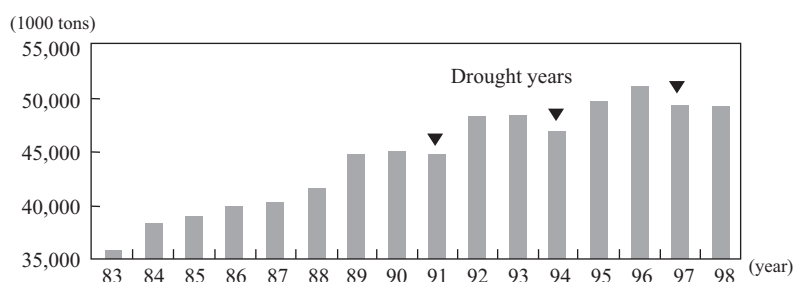
Source: BULOG

is conjectured that the shipments to Kalimantan Island were secured because it was essential for the government to supply rice to the island in order to resolve the rice shortage caused by the severe drought which hit the region. In 1998/99, the government sector procured some 840,000 tons of domestic rice. However, only 250,000 tons were actually procured from April to December 1998; during the three months from January 1999 to March 1999 alone, when the good harvest from a rainy season crop started to be gathered, close to 590,000 tons were procured. Thus, it is assumed that imported rice accounted for a considerable portion of the rice shipments in 1998/99. In particular, the shipments from Jakarta seem to have consisted mainly of imported rice.

CHAPTER 2: DROUGHT AND THE INFLUENCE OF THE ECONOMIC CRISIS

In this chapter, we will first survey the extent to which the rice production of Indonesia declined due to droughts taking into consideration of the actual production levels in the past, regional differences, etc. We will then explain the background to the confusion in the rice distribution system and the sharp rise in the rice price due to the economic crisis and analyze the actual situation of the shrinking of activities especially in the private sector. Furthermore, we

Figure 2-1: Trend in production of paddy rice in Indonesia



Source: Central Bueau of Statistics

will give an outline of the sharp increases in the numbers of the poor.

2-1 POOR RICE HARVEST

In Indonesia, a nationwide campaign to increase rice production, called the “green revolution,”^{*13} was launched in the 1970s, resulting in a remarkable rise in the production of rice. As Figure 2-1 shows, the production rose steadily between 1984, when achievement of self-sufficiency was declared, and 1990, but in the 1990s, the country suffered damage off and on due to droughts. In 1997~98, in particular, the nation was hit by a drought caused by El Nino and suffered poor harvests for 2 consecutive years. In 1997, the harvest declined by 3.4% (49.4 million tons harvest) compared to the previous year because the harvesting time for the rainy season crop (normally March~April) was delayed due to the drought, which had an adverse impact on the dry season crop. In 1998, although the dry season harvest exceeded expectations, production was 0.3% lower (49.2 million tons) than the previous year because transplanting for the rainy season crop (December 1997~March 1998) had been delayed^{*14} due to the impact from the previous year.

Table 2-1 shows the trend of production from earlier time. The rice harvest increased sharply at an annual average of 5.8% and 5.7% for 1975~80 and 1980~85, respectively. Between 1985 and 1990 also, after the achievement of self-sufficiency, production continued to rise at an annual average of 3.0% and the production of paddy rice reached 45.1 million tons in 1990. This increase rate was substantially higher than that of the population for the same period.^{*15}

The yield per ha^{*16} rose substantially, recording an average annual increase rate of 4.6% and 3.8% for 1975~80 and 1980~85 respectively, due to the introduc-

*13 It was intended to increase rice production by increasing the yield per ha using high-yield varieties developed by IRRI (International Rice Research Institute) from around 1967~1968 and inputting fertilizer, pesticides, machinery, etc. In Indonesia, the “green revolution” was promoted through the food increase program (BIMAS) and the agricultural promotion program (INMAS). Details of the situation at that time in Asia, including Indonesia, are given by the Japan Committee of the Japan/United States/Europe Committee (1978), etc.

*14 Usually, farmers adopt something like a block rotation system, dividing the rainy season (rendeng) and the dry season (gadu) into 4 planting time blocks, respectively, with each block beginning at an interval of 15 days. However, because the farmers delayed their tilling work until it started to rain (the dry season in 1997 was unusually long), this rotation system was thrown into confusion, and tilling, planting and harvesting were all done at once at a certain period. For this reason, a series of cycles, such as supply of input goods, water supply, pest control, employment of labor, sale of harvested rice, etc., were said to be thrown into major disorder compared with normal years, leading to a drop in the harvest.

*15 1971~80: an annual average of 2.32%, 1981~90: an annual average of 1.98%. National Statistics Agency (1996).

*16 Rice yield (tons/ha) is calculated as “number of ears per ha” x “average number of grains per ear” x “maturity ratio” x “ratio of number of grains in full maturity in an ear (%)” x “weight of 1,000 grains (g).”

tion of hybrid seeds, an increase in the input of chemical fertilizer, a rise in the irrigation rate, etc., although the increase rate declined to an annual average of 1.6% during the period 1985~90. On the other hand, the harvest area increased at an annual average of 1.2%, 1.9% and 1.2% for 1975~80, 1980~85 and 1985~90 respectively due to paddy field development in outer islands, etc.

In the 1990s, however, the production of rice continued to fluctuate due to bad weather, etc. The increase rate during the seven years from 1990 to 1997 was only an annual average of 1.3% for the production of paddy rice, 0.4% for the yield and 0.8% for the harvest area.^{*17} Since the population increase rate in Indonesia was 1.66% for 1990~95 at an annual average, it can be said that the in-

crease in rice production did not manage to catch up with the outstrip increases in the population. The yield per ha has hit its peak not only due to bad weather but also several factors such as cultivation expanded to outer islands where the yield is low, low level of agricultural technology^{*18} and application of fertilizer^{*19} not in a proper way.^{*20}

For reference, to look at the trends in production region by region, Java Island and Bali Island, where yield is high, still account for about 60% of the nationwide production despite the fact that conversion of farmland into residential and industrial sites has been in progress there in recent years and that rice production is on the increase in outer islands (Figure 2-2).^{*21}

Table 2-1: Trends in rice harvest area/yield per ha/production in Indonesia

Year	Harvest area (1000 ha)		Average yield per ha (in the husk) (tons/ha)		Production of paddy rice (1000 tons)	
	Area	Compared to previous year (%)	Yield per ha	Compared to previous year (%)	Production	Compared to previous year (%)
1975	8,495		2.63		22,331	
1980	9,005	(Annual average) 1.2	3.29	(Annual average) 4.6	29,652	(Annual average) 5.8
1985	9,902	(Annual average) 1.9	3.97	(Annual average) 3.8	39,033	(Annual average) 5.7
1990	10,502	(Annual average) 1.2	4.30	(Annual average) 1.6	45,179	(Annual average) 3.0
1991	10,282	-2.1	4.35	1.2	44,689	-1.1
1992	11,103	8.0	4.34	-0.2	48,240	7.9
1993	11,013	-0.8	4.38	0.9	48,181	-0.1
1994	10,734	-2.5	4.35	-0.7	46,641	-3.2
1995	11,439	6.6	4.35	0.0	49,744	6.7
1996	11,569	1.1	4.41	1.4	51,101	2.7
1997	11,141	-3.7	4.43	0.5	49,377	-3.4
1998	11,730	5.3	4.20	-5.2	49,237	-0.3
1999 (Estimates)	11,624	-0.9	4.26	1.4	49,534	0.6

Note: The increase rate compared to the previous year (%) for 1975~1990 represents the average annual increase rate for the preceding 5 years and that for 1999, the second estimates.

Source: Prepared from data of the Ministry of Agriculture and the Central Bureau of Statistics.

*17 According to Oda (1999), the average yield in terms of milled rice was 2.82 tons/ha for the first half of the 1990s for the entire country. This was the highest in Asia after Korea (4.47), Japan (4.35) and China (4.04). In other Asian countries, the yield was 2.25 tons for Viet Nam, 1.86 tons for the Philippines, 1.80 tons for India, 1.76 tons for Bangladesh, 1.64 tons for Myanmar and 1.44 tons for Thailand.

*18 Oda (1999)

*19 According to the World Bank (1999), Indonesia is self-sufficient in urea fertilizer; although sufficient urea fertilizer is used in Java Island, its use remains insufficient in outer islands. The country relies on imports for phosphatic and potash fertilizer and that the use of such fertilizer is particularly insufficient in the outer islands.

*20 On the other hand, according to Takase (1999), the yield per ha had reached its limits by 1990 in Indonesia; further increases cannot be expected without giving a further incentive to farmers through agricultural land reforms as have been introduced in Japan, Korea and China.

*21 In July 1998, the Indonesian Ministry of Agriculture drew up an emergency program for increasing the production of rice, soybeans and corn, called "GEMA PALAGUNG 2001," in order to increase production nationwide by increasing the yield per ha through increased input of fertilizer, etc., and replacing single-cropping with double-cropping and double-cropping with triple-cropping.

2-2 INCREASE IN RICE PRICES AND REDUCED ACTIVITIES OF THE PRIVATE SECTOR

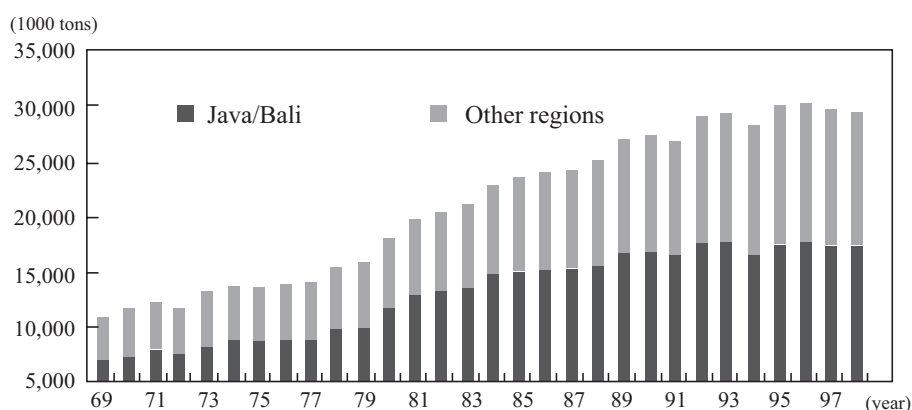
2.2.1 Increase in rice prices

In the mid-1990s, the rice price was stable at more or less Rp 1,000/kg (national average). This level was always higher than the international price of rice. Figure 2-3 shows the change in the retail rice price in Indonesia, the international price of rice and the exchange rate against the dollar.

The retail price of rice began to rise sharply after the end of 1997 when the rupiah tumbled due to the economic crisis. Thereafter, since the riot in May 1998, consumers have started to store rice and farmers and collectors to hold

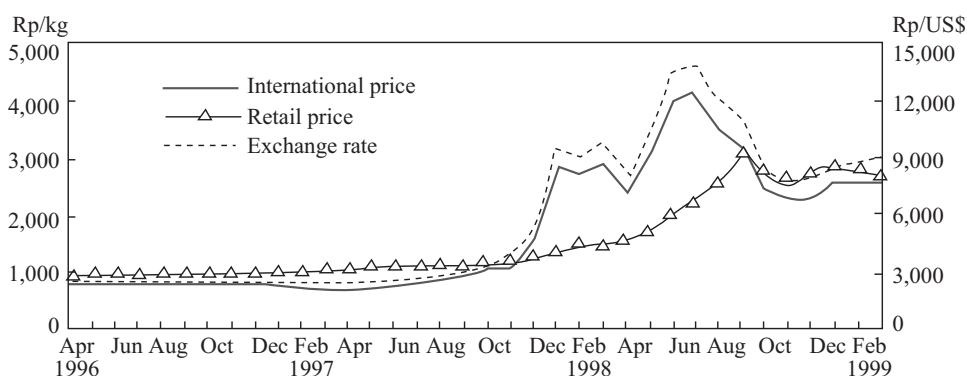
it back from the market, which resulted that the retail rice price rose to Rp 3,000/kg in September 1998. It appears that such situation was mainly caused by a decline in the volume of rice distribution derived not only from a bad harvest of rice but also from hoarding of farmers and collectors who were anticipating the rise in price and cornering of the rice by consumers. Moreover, a reversal of the domestic and external rice prices due to a fall in the rupiah seems to have been a factor which lead to the hike in the domestic price. In reality, as rice imports had been monopolized by BULOG till September 1998, high-priced imported rice did not appear in the market. However, it was reported in local newspapers that smuggling export was rampant during the period when the international price

Figure 2-2: Trends in the production of milled rice in Java and Bali Islands and other regions



Source: Central Bureau of Statistics

Figure 2-3: Trends in retail price/international price of rice and the exchange rate



Note: The international price is the estimated import price consisting of the FOB price in Thailand (annual average) plus the ocean freight and marine insurance premium to Jakarta.

Source: BULOG for retail prices, World Bank for international prices (Thai rice, CIF Jakarta) and IFS for the trends in the exchange rate.

was considerably higher than the domestic price, therefore, the possibility cannot be denied that the price of the rice smuggled abroad might affect the pricing of rice in the domestic market. BULOG tried to hold down the sharply rising price by releasing more rice onto the market from Oct 1997 but it met with limited success. Although it is not possible to know the accurate volume of rice distribution for lack of statistics on the volume of rice distributed in the private sector, those concerned in the Chipinang Central Rice Market in Jakarta have said that the volume of rice fell sharply after the riot in May 1998.*²² It seems highly likely that the volume of rice distributed, both of the private sector and the government sector declined substantially during the period.

Figure 2-4 shows the movement in the volume of rice released to the market by BULOG and the retail price of rice. BULOG has released rice onto the market every month since October 1997 nearly 10 times of the corresponding month of the previous year, but the price has continued to rise. Since the volume of rice distributed through the private sector for the period is unknown, it would be too hasty to conclude that BULOG's release of rice to the market did not have a price stabilizing effect. However, in an emergency situation like this, it seems that the impact of measures in the government sector has been somewhat limited.*²³

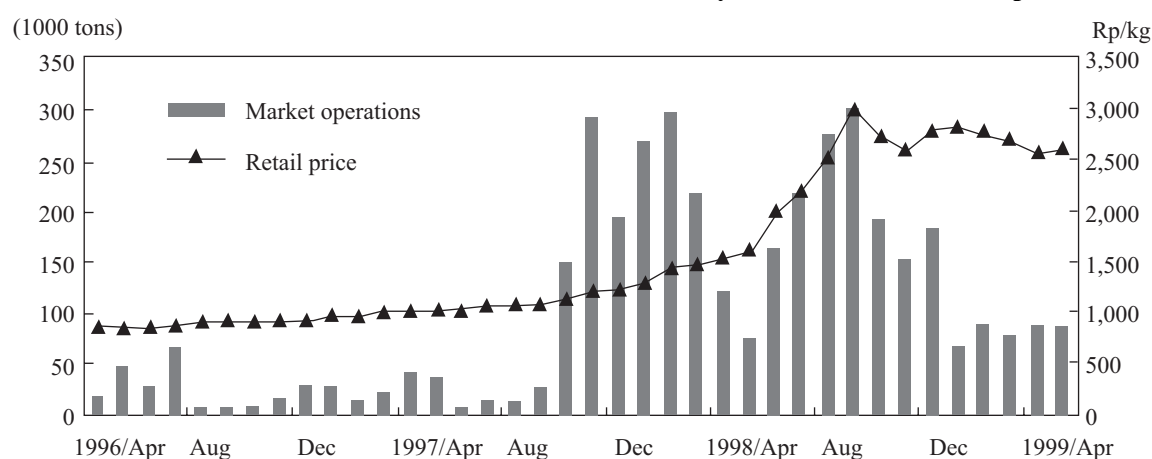
2.2.2 Shrinking of Activities in the Private Sector

As has been mentioned earlier, rice distribution is mainly carried out by the private sector in Indonesia. In particular, Chinese Indonesian are engaged in relatively large-scale transactions. These large distributors are engaged in transactions outside their own provinces and in distribution between islands as well. On the other hand, smaller distributors are run mainly by pribumi. The accurate number of small to medium sized distributors is not known, but according to BULOG, as of October 1998 the number of millers registered in the National Association of Rice Millers is about 77,000. The number of operators engaged in rice distribution should be much larger if collectors and traders are included.

The private sector has suffered the adverse effects of the economic crisis and deterioration in public order and its activities have reduced. Table 2-2 summarizes the results of the hearing from 3 wholesalers in Central Lampung District, Lampung Province, Sumatra Island. In Central Lampung District, where the droughts have not been seen and the production of paddy rice increased from 467,000 tons in 1997 to 508,000 tons in 1998. Nevertheless, the volume of milled rice handled by the three wholesalers was only 13-30%, respectively, of that in 1997.

The substantial decline in the volume handled by the wholesalers of the above hearing was caused by, in par-

Figure 2-4: Trend in the volume of rice released to the market by BULOG and the retail price



Source: BULOG

*²² Based on a hearing at the Chipinang Central Rice Market.

*²³ According to JICA (1999), BULOG released rice onto the market till the beginning of 1998 at a price lower than the international market price with a view to stabilizing the consumer rice price, but in June 1998, following the riot in May, the government abandoned the price stabilization policy permitting the rice price to rise to the international level. However, the release volume, which began to decrease in March, again started to increase in June, and in the present survey it has not been possible to ascertain whether there was such a policy decision in June 1998.

ticular, (i) the fact that farmers/collectors held off selling rice in anticipation of a rise in price leading to the reduced supply to rice millers/wholesalers, and (ii) that wholesalers were obliged to reduce purchases volume of rice due to difficulty in securing working capital. As is shown in Table 2-2, in 1998 the purchase price from rice millers was about 3 times higher than in 1997, which means that the volume that could be bought with the same amount of money for 1997 was about 1/3 of that in 1997. Moreover, the interest rate for the working capital borrowed by private businesses rose from 18.72% in the second quarter of 1997 to 32.16% in the second quarter of 1998*²⁴, so the circumstances were not so favorable that wholesalers were likely to increase working capital borrowings. The actual purchase funds of each of the three distributors are seemed to be on a decreasing trend.

In Central Lampung District, the volume handled by retailers has also fallen sharply as is shown in Table 2-3.

In the private sector, the contraction of activities is estimated to have been severer for large distributors than for smaller ones. For example, in Karawang District, West Java, cases have been reported where rice transactions by large collectors/millers were temporarily suspended because a decrease of the rice handling volume made them

judge that various expenses for operating equipment/facilities, such as polishing equipment, drying machines and warehouses, and the interest for borrowing working capital might exceed distribution earnings. Also, there have been cases where large distributors, active in the sale of high-quality rice, deliberately reduced the rice handling volume for fear that final consumers would switch from high-quality to low-quality rice due to the hike in the rice price. In West Java and Lampung, however, cases have been reported where large collectors/millers continue to maintain their equipment/facilities and employees even when they temporarily withdraw from rice transactions. Accordingly, if rice production/distribution volume returns to the normal, large distributors will likely return as core distributors in rice distribution.*²⁵

Deterioration of public order is also one of the factors that lead to the decrease in rice distribution volume. For example, rice traders in Bandung, West Java, who had purchased rice from Central Java Province before the economic crisis, have stopped such purchases since the crisis. Probably, they decided that it was better to completely suspend their deal with Central Java Province than risk the danger involved in going there to purchase rice carrying large amounts of money, as well as the danger of being attacked

Table 2-2: Examples of contraction in transactions in the private sector (wholesalers in Central Lampung District)

Outward shipments	Sample 1		Sample 2		Sample 3	
	1997	1998	1997	1998	1997	1998
Inward shipments						
(1) Milled rice handled (tons/year)	3,600	900	2,000	600	5,400	720
(2) Unit purchase price from rice millers (Rp/Kg)	1,000	2,900	1,000	2,950	1,000	2,950
(3) Unit wholesale price (Rp/Kg)	1,050	3,000	1,050	3,150	1,075	3,100
(4) Profits (Rp/Kg)	50	100	50	200	75	150
(5) Purchase funds ((1) x (2), million Rp)	3,600	2,610	2,000	1,770	5,400	2,124

Source: Field surveys

Table 2-3: Examples of contraction in transactions in the private sector (retailers in Central Lampung District)

Outward shipments	Sample 1		Sample 2		Sample 3		Sample 4	
	1997	1998	1997	1998	1997	1998	1997	1998
Inward shipments								
(1) Milled rice handled (tons/year)	600	72	500	80	300	90	250	80
(2) Unit purchase price (Rp/Kg)	1,050	3,000	1,075	3,150	950	2,700	900	2,700
(3) Unit retail price (Rp/Kg)	1,125	3,250	1,175	3,250	1,000	2,900	1,000	2,900
(4) Profits (Rp/Kg)	75	250	100	100	50	200	100	200
(5) Total income ((1) x (2), million Rp)	45	180	50	8	15	18	25	16

Source: Field surveys

*24 A weighted average of interest rates for lending work capital to private businesses; IFS (February 1999).

*25 All cases have been drawn from field studies.

by robbers on their way back to Bandung even if the purchase was successful. Cases have also been reported in Lampung and South Sumatra Province where distributors narrowed the area of their activities for reasons of deterioration in public security. It is assumed that in areas where means of communication are inadequate, distributors tend to be more hesitant in their purchasing activities because they are not certain how much danger there is or how much rice they can collect.

Furthermore, the rice shortage has invited indirect control by local government agencies with the resultant effect of restricting activities of private distributors. The following cases have been brought to light through the field survey. In Lampung, government officials denounced the storage of rice normally carried out by rice collectors/millers as an act of hoard and urged them to deliver their rice. Thereafter, collectors/millers are refraining from storing rice. In South Sumatra, delivery of rice outside the province has eventually been prohibited. On the part of local governments, on the understanding that the existence of too many small rice milling unit (RMU), collecting rice from farmers, led to inefficient distribution and, furthermore, to low levels of rice procurement by SUB-DOLOG, an attempt was made to reduce the number of RMU to 1 per 500 ha, as is the case with KUD (village-based cooperatives). The difficulties experienced by SUB-DOLOG in procuring rice are mainly due to the fact that their minimum purchase price was lower than the purchase price in

the private sector and is not directly related to the number of RMU. Moreover, no reasonable explanation was made by local governments concerning the reduction of the number of RMU. It may be assumed that control by local government agencies was one of the factors of the contraction of activities in the private sector.

2-3 INCREASE IN THE NUMBER OF THE POOR

Due to the rapid economic growth since the 1970s, the number of the poor in Indonesia has been steadily on the decrease in terms of the absolute number as well as in the ratio to the total population. In 1976, the poor numbered 54.2 million and the ratio of the poor was 40.1%. In contrast, by 1996, the number of the poor had declined to 22.5 million and the ratio of the poor to 11.3%. Due to the economic crisis, however, the country's poor population increased abruptly. According to the survey conducted jointly by the Central Bureau of Statistics and UNDP/UNSFIR in December 1998*²⁶, the number of the poor increased sharply to 49.5 million and the ratio of the poor to 24.2% (Table 2-4).^{*27}

The impact of the economic crisis is more severely felt in urban areas around Java Island than in rural areas,^{*28} and it is said that many of the poor in urban areas are even unable to buy rice at the price of 1,000 rupiahs per kilogram under the Targeted Rice Subsidy Program.

Table 2-4: Increase in the poor population

(unit: million persons)

Time of survey	Poverty line (rupiahs)		Urban areas	Rural areas	Total
	Urban areas	Rural areas			
February 1976	4,522	2,849	10.0 (38.8%)	44.2 (40.4%)	54.2 (40.1%)
February 1980	6,831	4,449	9.5 (29%)	32.8 (28.4%)	42.3 (28.6%)
February 1984	13,731	7,746	9.3 (23.1%)	25.7 (21.2%)	35.0 (21.6%)
February 1987	17,381	10,294	9.7 (20.1%)	20.3 (16.1%)	30.0 (17.4%)
February 1990	20,614	13,295	9.4 (16.8%)	17.8 (14.3%)	27.2 (15.1%)
February 1993	27,902	18,244	8.7 (13.5%)	17.2 (13.8%)	25.9 (13.7%)
February 1996	38,246	27,413	7.2 (9.7%)	15.3 (12.3%)	22.5 (11.3%)
December 1998	96,959	72,780	17.6 (21.9%)	31.9 (25.7%)	49.5 (24.2%)

Note: In parentheses are shown component ratios to the Indonesia's total population, those in urban areas and those in rural areas respectively. The unit for the poverty line is rupiahs/person/month.

Source: Central Bureau of Statistics homepage

*26 Homepage news release of the Central Bureau of Statistics (No. 04, July 9, 1999).

*27 According to the calculation made by the Indonesian government in mid-1998 using a macroeconomic model with the high inflation rate/high unemployment rate/decline in real income as variables, the poor population in 1998 was 79.4 million (39.1% of the total population) indicating the possibility of half of the population becoming poor by the end of 1998. As a result of the survey in December 1998, however, it became clear that the poor population was estimated too high in this calculation. It is assumed that the excessive calculation was caused by treating the impact of the economic crisis too pessimistically.

*28 Sumarto et al. (1999).

CHAPTER 3: COUNTERMEASURES TAKEN BY THE INDONESIAN GOVERNMENT AND THE CURRENT SITUATION OF RICE DISTRIBUTION

In the preceding chapter, we surveyed the impact of the droughts and the economic crisis on the distribution of rice. In this chapter, we will study the measures taken by the Indonesian government for emergency imports of rice, market interventions, provision of rice to the poor, etc., and analyze the situation of rice assistance from Japan. The present situation of rice distribution will also be discussed.

3-1 MEASURES TAKEN BY THE GOVERNMENT

3.1.1 The Urgent Import of Rice

BULOG purchased rice domestically and provided it to public servants and others at normal times. In 1998, how-

ever, the producers' rice price rose so high, exceeding the minimum purchase price (the floor price), that it was almost impossible to procure rice domestically. BULOG, therefore, imported about 6 million tons of rice, the highest level in history as is shown Figure 3-1. Some 3 million tons of rice were imported in 1995 also due to a poor harvest on account of the unseasonable weather, but in 1998, rice imports had almost doubled.

Figure 3-2 shows the monthly movement of the procurement and stock of imported/domestic rice in fiscal 1998 (April 1998–March 1999). At the end of March 1998, when a rice shortage became evident, BULOG's rice stock level was approximately 1.16 million tons. BULOG imported some 1.9 million tons of rice in the 3-month period from April to June 1998, pushing back the stock level to 2.37 million tons at the end of June in the same year. Rice imports continued to increase even after that, bringing total imports during the 9-month period from April to December 1998 to some 4.29 million tons. On the other hand,

Figure 3-1: Trends in actual rice procurement by BULOG

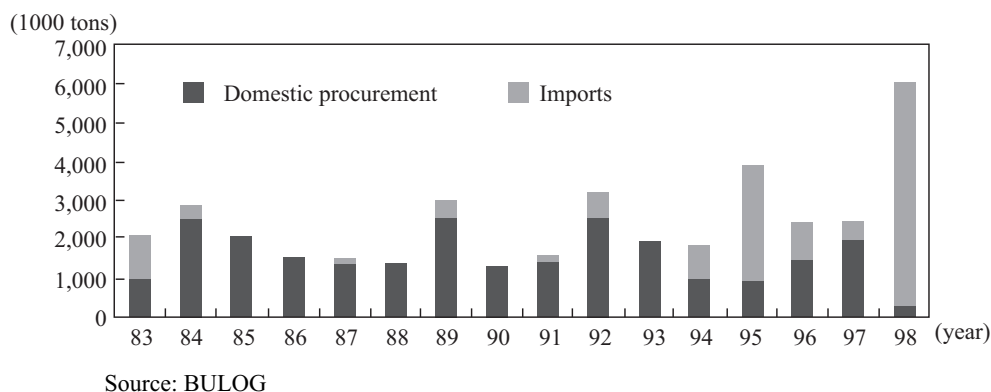
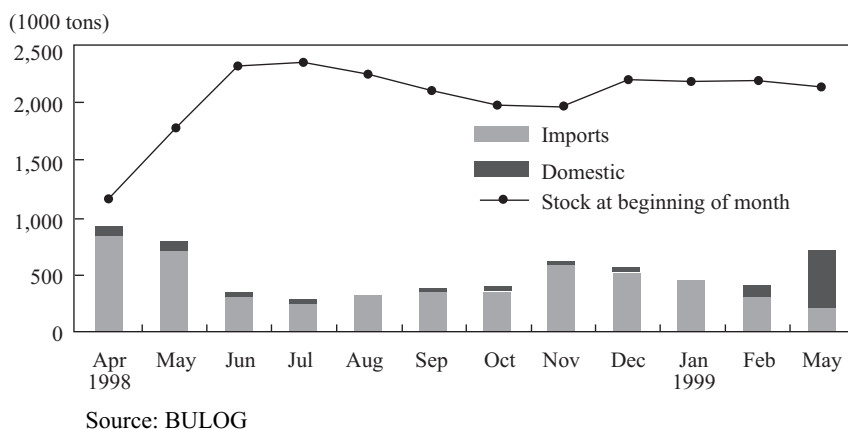


Figure 3-2: Trends in actual procurement by BULOG of imported/domestic rice and in the stock at the beginning of the month



actual domestic rice procurement during the same period was only 250,000 tons. While the rice imported by BULOG played a substantial role in solving the rice shortage, it is said that the loss between the cost of imported rice and its sales price for domestic constituted a major fiscal burden on BULOG and the Government of Indonesia.*²⁹

As is shown in Table 3-1, in 1998, rice was imported from Viet Nam, Thailand, China, and so forth, mainly under commercial contracts concluded by BULOG. The rice under assistance from Japan (loan and grant in aid), totaled 750,000 tons in 1998 and 1999 combined.

3.1.2 Situation of Rice Assistance from Japan

In order to cope with the worsening rice shortage, the Indonesian government requested assistance from the Japanese government of one million tons of rice. In response to this request, the Japanese government extended urgent rice assistance through a loan of rice and grant in aid. This

emergency assistance was decided as part of the overall economic measures announced by the Japanese government on April 24, 1998 in response, in particular, to the announcement by FAO/WFP on April 9, 1998 that there was a major possibility of Indonesia suffering from record food shortages in the course of fiscal 1998.*³⁰

As is shown in Table 3-2, the first rice lending contract concerning government rice was signed between the Japanese Food Agency and BULOG in June 1998 based on the exchange of notes. The ocean freight and port charges were covered by the emergency grant. Of the 50,000 tons of Thai rice provided under the Japanese grant, 40,000 tons were to be provided through WFP and 10,000 tons using a local NGO on a bilateral basis, for which the exchange of notes was signed in June as well.

Thereafter, in response to an additional request from the Indonesian government, as well as the announcement of FAO/WFP*³¹ that the food shortage would likely become more severe, an additional rice lending contract was

Table 3-1: Places from which rice was imported (1998)

(unit: 1000 tons)		
Country	Volume of imports	Assistance portion
Viet Nam	1,866 (31%)	of which 100 were on loan
Thailand	1,765 (30%)	of which 5 were on donation
China	1,254 (21%)	of which 250 were on loan
Pakistan	524 (9%)	
Japan	455 (8%)	all on loan
Myanmar	58 (1%)	
Taiwan	18 (0%)	all on loan
United States	4 (0%)	all on loan
Total	5,944 (100%)	

Notes: The rice from Japan in the table indicates the amount that was contracted in June 1998, to be delivered within the same year. A part of the Sector Program Loan was appropriated as payment of the imported rice.

Source: BULOG material

Table 3-2: Breakdown of rice assistance from Japan

Form of aid	Quantity	Remarks	
The rice lending contract by the Japanese government*		Domestic rice	Minimum access rice
The quantity signed for in December 1998	500	300	200
The quantity signed for in June 1998	200	120	80
Subtotal	700	420	280
Donation	50	Thai rice	
Total	750		

Notes: * The amount was converted to the as brown rice. The conditions for lending: to be returned within 30 years (grace period 10 years); the fee for lending (equivalent to the interest rate) is 2% of the amount lent (3% of the amount remaining from the 11th year onwards). Aside from these, a part of the sector program loan is used as payment for the imported rice.

Source: Ministry of Foreign Affairs and Food Agency of Japan

*²⁹ According to World Bank estimates, rice (Thai rice, of which 25% was broken rice) was being imported at a cost of about US\$ 245/MT as of October 1998. It is equal to Rp 2,030/kg if converted by the average exchange rate for October, US\$1=Rp 8,287. On the other hand, the price at which imported rice was released to the market by BULOG at that time was Rp 2,000/kg, so if various charges after unloading (Rp 200-300/kg) are included, a back lash is likely to have resulted.

*³⁰ For the overall economic measures, see the homepages of the Ministry of Foreign Affairs and the Economic Planning Agency.

*³¹ FAO/WFP (1998)

signed in December of the same year. The first vessel carrying part of the rice contracted in June 1998, arrived in Indonesia at the end of August 1998; thereafter, approximately 100,000 tons were shipped every month. By the end of March 1999, all 700,000 tons, including the rice contracted in December 1998, had been delivered. Of the rice loaned by Japan, about 530,000 tons were brown rice^{*32} and the remainder was milled rice.

As is shown in Table 3-3, the rice assistance from Japan was delivered throughout Indonesia. To be more specific, the rice was delivered to 17 of the 27 Indonesian provinces. 5,000-ton-class vessels were used for the transportation and the rice was unloaded at as many as 22 ports. Since Japanese rice was reported to suit the tastes of the Javanese, it was mainly delivered to Java Island and the minimum access rice mainly to outer islands.

In January 1999, the Japanese media reported delays in the release of rice from Japan. In fact, full scale release to the market of the rice from Japan was only begun in January 1999. While several reasons for this are conceivable, the major factor seems to be that the initial price of Japanese assistance rice released by BULOG was higher than the market price of medium-quality rice. It was BULOG's policy to release the high-quality Japanese rice to the market at a price matching its quality, but the quality of Japanese rice was valued in the marketplace as being medium or even somewhat lower. Moreover, the atmosphere of a rice shortage had been disappearing from the

market since September 1998. Thus, it may be assumed that BULOG was compelled to reconsider the timing of the release of Japanese rice, as well as its pricing.

Since January 1999, the portion for release to the market was resumed with the price lowered to that of medium-quality rice, in response, in particular, to appeals from the Japanese side.^{*33} Moreover, since March 1999, Japanese rice was released to the market as brown rice, which was favorably received. Of the approximately 530,000 tons of brown rice, 20% to 30% appear to have been released to the market unpolished. Meanwhile, provision for the poor through the Targeted Rice Subsidy Program (OPK program), which will be explained below, has progressed smoothly. As a result, as of the end of July 1999, approximately 90% of the Japanese rice had been distributed through releases onto the market and the OPK program in urban and rural areas, particularly in Java Island, thus contributing to the stability of the rice price and support for the poor. Provision through the OPK program accounted for about 60% of the loaned rice and the release to the market for some 40%.

3.1.3 The Beginning of the Targeted Rice Subsidy Program (OPK Program)

To cope with the increases in the numbers of the poor, the Indonesian government has introduced the OPK for the poor by BULOG since July 1998 as part of the social safety

Table 3-3: Destinations of Japanese assistance rice

Destination	Volume imported	
Sumatra	155	(23%)
Java	385	(57%)
Kalimantan	10	(1%)
Sulawesi	55	(8%)
Bali	15	(2%)
Nusa Tenggara	25	(4%)
Maluku	15	(2%)
Irian Jaya	20	(3%)
Total	680	(100%)

(unit: 1000 tons)

Notes: The amount converted to the brown rice was 700,000 tons, but the total amount was actually 680,000 tons because milled rice was mixed into it. This figure does not include the rice that was donated.

Source: OMIC

*32 According to the Japanese Ministry of Foreign Affairs, the rice loaned by the Japanese government is basically stored in the form of brown rice and it was necessary to polish it either in Japan or in Indonesia when the emergency assistance was extended; since the Indonesian government strongly desired an immediate delivery of the rice and explained that Indonesia had sufficient rice polishing facilities, it was decided to deliver the brown rice.

*33 For example, the Japanese rice milled in Indonesia was released at Rp 3,800/kg as of September 1998, but the price was reduced to Rp 3,000/kg in November 1998 and to Rp 2,550/kg in February 1999. The price of Rp 2,250/kg set in March 1999 was maintained through the end of July 1999.

net (SSN).^{*34} The outline of SSN is shown in Table 3-4. OPK was begun on July 1, 1998 targeting 179,000 households in the Jakarta metropolitan area (Jabotabek). On September 1 of the same year, the target was expanded to cover 53 districts in 15 provinces where suffer from rice shortages. As a result, the number of households covered by the program rose rapidly to 1.6 million at the end of September 1998 and to about 7.35 million nationwide from October 1998.^{*35}

The targets of the Targeted Rice Subsidy Program were initially the households identified as being poor based

on the income survey conducted by the Ministry of Labor and the National Family Planning Coordination Agency (BKKBN) between May and July 1998. Based on the survey, the requirements for OPK in each region would be determined by SUB-DOLOG, local governments and BKKBN. In principle, the rice to be provided is transported by SUB-DOLOG once a month to the locations designated at the county level (KUD, etc.). Rice is then directly handed over to the housewives (or heads of a family) of the target households based on the lists of the poor confirmed by the heads of towns or villages known as RT/RW. However,

Table 3-4: Outline of Social Safety Net (SSN)

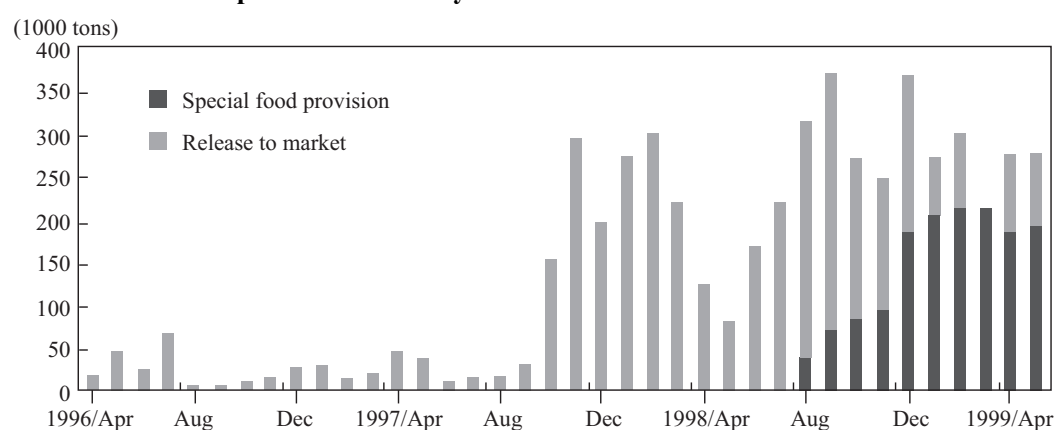
Area	Program	Outline	Major donor
Food	special food provision	provision of rice to the poor at a low price through subsidies	World Bank*/JBIC**/ WFP
Employment	job creation	contribution to community funds support for labor-intensive training projects	World Bank/JBIC
Education	scholarships for elementary and junior high school students cash support for elementary and junior high schools	awarding scholarships to elementary and junior high school students provision of maintenance expenses for elementary and junior high schools	World Bank/ADB/JBIC
Insurance	assistance in medicines improvement of nutritional conditions basic medical service access	provision of medicines to public health centers improvement of nutritional conditions of target groups, such as pregnant women and children provision of medical service to the poor	ADB/JBIC

Note: * Covered by Social Safety Net Adjustment Loan: approved by the Board, but not yet implemented.

** Covered by Social Safety Net Adjustment Loan: the Japanese government announced the intention of contribution in July 1999.

Source: World Bank and JBIC

Figure 3-3: Trends in the provision of rice by BULOG



Source: BULOG

*34 WFP also expanded its Food for Work Program (rice is given in consideration of work done for civil engineering works, etc.; implemented in cooperation with NGOs, etc.) which had been implemented mainly in rural areas, starting it in major cities in Java Island as well with the period July 1999~June 2000 in perspective.

*35 Yonekura (1999)

there are different ways of distributing rice; in some regions, for example, rice is allocated evenly among the entire population of the village.

At present, the weight of the target for the Targeted Rice Subsidy Program is shifting from rural to urban areas, and the poor households which have not been confirmed, such as illegal residents in urban areas, have come to be covered by the program. Each household covered by OPK is now able to purchase 20 kg of rice every month at Rp 1,000/kg.^{*36}

While BULOG uses imported rice mainly for release to the market for the purpose of stabilizing the rice price, it started distributing some 200,000 tons (for about 10 million households, though distribution was planned for 13 million households) per month under the program from 1999 (Figure 3-3).

3.1.4 Other Measures

As has been mentioned above, various factors hindering rice distribution have become conspicuous in this respect, such as the deterioration in public security and prohibition of rice shipment across provinces. To respond to this, the Indonesian government has focused on ensuring the smooth distribution of rice as part of the measures to cope with the economic crisis and implemented a variety of measures in addition to those already mentioned, such as simplified approval/authorization procedures for inter-provincial transactions.^{*37} An outline of the measures is also reported (Table 3-5) in its Letter of Intent (LOI) to IMF. The seven measures incorporated in the LOI dated September 11, 1999, in particular, are considered to have contributed to bringing to an end of the disorder in rice distribution and to the stabilization of the rice price. The "direct sale of medium-quality rice" included in the seven items refers to a system under which employees of DOLOG/SUB-DOLOG sell rice directly to retailers and consumers, rather than releasing rice onto the market through wholesalers and retailers as has been done in the past. This is known as the Satogasu (business team) method. It was the intention of DOLOG/SUB-DOLOG, using the Satogasu method, to make full use of their monitoring function by obtaining information on the rice supply and demand situation in various parts of the country and to set an appropriate retail price by quickly ascertaining the trends in the rice price. As of October 1998, the retail price of medium-quality rice

offered by Satogasu in Karawang District was Rp 2,000/kg.

In addition, with regard to the food policy in general, the Indonesian government abolished subsidies for fertilizer in December 1998 and has adopted measures to expand rural finance and reduce interest rates. The abolition of subsidies for fertilizer was decided taking into account the criticism that the subsidies were not necessarily effective, one of the reasons being that some of the fertilizer, priced low for the protection of farmers, was being diverted for use in plantations. Along with the abolition, the agricultural credit (Kredit Usaha Tani: KUT) budget was substantially increased from 1.7 trillion to 6.5 trillion rupiahs and the interest was reduced from 14% p.a. to 10.5% p.a.

3.2 GOVERNMENTAL REFORM

BULOG used to monopolize the exports/imports not only of rice but also of wheat flour, sugar, soybeans, garlic, etc. However, because of criticism that the system was being managed in an extremely non-transparent way, imports of agricultural products excluding rice were liberalized by February 1998 and of rice in September the same year in response to the recommendations of the IMF/World Bank. On the other hand, under the guidance of the World Bank, the Indonesian government started to review the role of BULOG and consider ways of restructuring it.^{*38} A kind of subsidies have been granted to BULOG by setting a special exchange rate for rice imports, but this system was scheduled to be abolished at the end of 1998 and an explicit fiscal subsidy for rice will be disclosed in a budget for BULOG.^{*39} At the same time, BULOG has been urged to create an audit system in accordance with the international criteria as in the case of other state-owned enterprises/funds such as PERTAMINA (the public petroleum corporation), PLN (the public power corporation) and the Afforestation Fund. As has been shown in Table 3-5, BULOG has already received an international audit by Arthur Andersen and the future of BULOG will be studied based on the audit results.

The following points will likely be discussed concerning the reform of BULOG. First, it will be necessary to study on what type of organization should be suitable for BULOG to match its functions, which have become limited to rice transactions, and further on the type of management/maintenance system that should be adopted in

*36 In December 1998, the maximum purchase volume per household was increased from 10 kg to 20 kg.

*37 However, the effects of various measures have not been verified in the present research.

*38 IMF. "A Letter of Intent of the Government of Indonesia," Jakarta, September 11, 1998.

*39 IMF. "A Letter of Intent of the Government of Indonesia," Jakarta, November 13, 1998.

Table 3-5: Transition of Policies Relating to Rice Distribution

The Letter of Intent addressed to the IMF concerning economic and financial policies	Emergency measures	Structural reforms
As of January 15, 1998		Liberalization of imports of all basic foodstuffs except rice ¹⁾
As of April 10, 1998	Continued import and sale of basic foodstuffs by BULOG ²⁾	
	Continued subsidies for basic foodstuffs in a limited period ³⁾	
	Food for Work Program implemented by WFP (mainly in areas heavily affected by drought)	
As of June 24, 1998	The target amount for rice imported by BULOG expanded from 2.85 million tons to 3.1 million tons (for the year 1998/1999)	BULOG is audited by international auditing standards
	The Ministry of Industry and Trade has set up a monitoring team to observe the distribution of food	
	The Ministry of Home Affairs has ordered provincial governments to support retailers and wholesalers and to simplify the procedures for certifying the transactions among the different provinces	
	Subsidies on basic foodstuffs to continue for a limited period of time ⁴⁾	
As of July 29, 1998	Distribution of low price rice to the poor expanded beyond Jakarta to other parts of the country ⁵⁾	
	Safety of the property of merchants such as warehouses, trucks and containers, secured.	
	BULOG intervention, in importing, maintaining stocks and releasing into the market, strengthened.	
	A special task force, headed by the Minister of Food and Horticulture, starts directing the overall monitoring of the distribution of food.	
	The export of basic food stuff including rice halted temporarily (from July 26, 1998) ⁶⁾	
As of September 11, 1998	Seven basic strategies concerning the distribution of rice announced: (1) BULOG will release a large amount of rice of all degrees of quality onto the market. (2) Released prices will be set lower than market prices. (3) BULOG will increase the direct sales of medium quality rice to retailers and cooperatives. (4) The VAT on rice and other basic foodstuffs is to be postponed to lower rice prices. (5) The inexpensive rice provided to low income families is to be expanded quickly with the cooperation of provincial governors. (6) BULOG will actively sign new contracts for imports in order to secure sufficient stocks of rice. (7) The import of rice by the private sector is to be liberalized.	Subsidies for basic foodstuffs except rice to be terminated. ⁷⁾ The auditing of BULOG based on international auditing standards to be completed by the end of December 1998.
As of October 19, 1998	The amount released into the market by BULOG to be maintained at high levels until the harvesting season (February and March 1999) begins.	
	The provision of low priced rice to the poor to be expanded with Rp. 1,000/kg. and 10-kg per household. ⁸⁾	
	Improvements to targeting and monitoring systems for providing rice to the poor to be examined in consultation with the World Bank.	
	The WFP Food for Work Program to be expanded.	
As of November 13, 1998	The amount of low priced rice provided to the poor raised from 10 kg per month per household to 20 kg. (from December 1, 1998)	The exchange rate subsidies for the rice imported by BULOG to be terminated and clear financial subsidies given. (end of December 1998)
	The amount of rice imported by BULOG to be reduced from the original plan due to a drop in market prices	The schedule for the auditing of BULOG to be changed: the accounting office to be decided by the end of November 1998 and auditing completed by the end of June 1999.
	The prices of low cost rice released by BULOG to be raised to the standard of market prices.	
As of March 16, 1999	The minimum buying prices of BULOG to be maintained so that the gap between domestic rice prices and international rice prices does not widen excessively.	The auditing of BULOG is being implemented for FY 1993, the period between 1994 and 1997 and FY 1998.
As of May 14, 1999	The provision of low cost rice to the poor in urban areas including those that are not registered, to be expanded.	The auditing of BULOG expected to finish by the end of June 1999 as scheduled.
	The distribution of low cost rice will be conducted with the cooperation of NGOs and citizen's groups (in the area of program designing and the improvement of monitoring).	
As of July 22, 1999		The auditing of BULOG was completed at the end of June and the results are being currently reviewed by the Indonesian government.

- Notes: 1) BULOG monopolies over the import of wheat (flour), sugar, soy beans and garlic were abolished as of February 1, 1998.
2) Rice, soy beans, sugar, flour, corn, soy bean meal and fish flour
3) Sugar, flour, corn, soy bean meal and fish flour subsidies were planned to be terminated on April 1, 1998 and those for rice and soy beans on October 1, 1998.
4) The abolishment of basic foodstuff subsidies has been postponed until March 1999.
5) This program began in July 1998 targeting the low income households in Jakarta and expected to be extended to 750,000 households nationwide by September.
6) Exports of rice, wheat, flour, soy beans, sugar, kerosene and fish flour have been prohibited. This was abolished in September 1998 when basic food stuff subsidies, excluding rice, were terminated.
7) Wheat and sugar subsidies were terminated at the beginning of September. Those on soy beans will be abolished gradually. Import subsidies for sugar, fish flour and corn were also terminated.
8) The actual number of households to which rice was rationed was 5.6 million as of the end of September. The goal set for the end of October was 9.5 million but it reached only 6 million households.

Source: Based on the Indonesia: Memorandum of Economic and Financial Policies (downloaded from the IMF homepage)

order to efficiently use the warehouses owned by BULOG nationwide. Second, in line with the abolition of the monopoly of transactions in soybeans, wheat, sugar, etc., which used to be the sources of BULOG's revenue, it would be necessary to review the subsidy for rice transactions, as well as the way in which BULOG's revenue should be generated. Third, it would be necessary to examine the level at which rice stock should be reserved in connection with the issue of food security. The extent to which the function of stabilizing the rice price should be retained by the government sector is also an important issue. In any event, the direction of the reform of BULOG can become clear only when the Indonesian government has firmly established a national food policy. Thus, it would seem realistic to make a gradual examination based on the arguments received from various fields, rather than undertaking a reform of BULOG in a rash manner.

3-3 PRESENT SITUATION OF RICE DISTRIBUTION

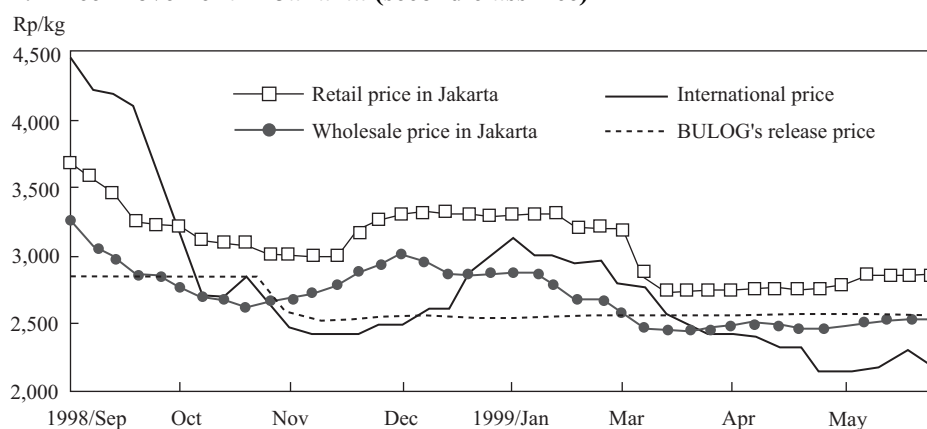
The rice price has started to fall after peaking in September 1998. The major factors for the decline in the price appear to be (i) that emergency import rice from Japan and other countries has arrived and, together with this, (ii) that the concern about the rice shortage has been wiped out because the dry season rice has been arriving on the market since September with better harvest than expected^{*40}. As is shown in Figure 3-4, the retail price for second-class

rice in Jakarta remained around Rp 2,850/kg as of June~July 1999. This level is about 40% higher than that in 1996 after taking into account the inflation rate (if the consumers price index of 100 is taken for 1996, it is 204 for June 1999).

It is considered that the trend in the exchange rate also had a considerable impact on the market price. However, since the volume of privately imported rice was limited till around April 1999 (about 120,000 tons during the 1st quarter of 1999), it may be assumed that the trend in the market price during the period largely depended on the volume of rice flowing into the market. According to the World Bank, on the other hand, imports by the private sector have started to increase since May 1999 because of the recovery of the rupiah (according to the estimates of the World Bank, at the pace of about 100,000 tons every month),^{*41} having an effect of pushing down the domestic rice price. It is expected that in future, the trend in the volume/price of privately imported rice will have a greater influence on the domestic price and the production of rice in Indonesia.^{*42}

Production in 1999 is estimated to be 49.53 million tons (31.20 million tons in terms of milled rice), not reaching the government target of 52 million tons. BULOG had stock of some 2.7 million tons as of the end of July 1999 and is expected to procure 1.8 million to 2 million tons of domestic rice in 1999. However, a certain volume of rice imports is still required to fill the supply/demand gap.^{*43}

Figure 3-4: Price Movement in Jakarta (second class rice)



Source: World Bank Jakarta Office

*40 FAO/WFP estimated Indonesia's production of paddy rice in 1998 to be 47.5 million tons (-3.4% compared to the previous year) in April 1998 and 45.4 million tons (-8.1% compared to the previous year) in October 1998. However, 49.2 million tons (-0.3% compared to the previous year) were actually produced, exceeding the estimates in October by close to 4 million tons.

*41 Based on a telephone interview with the Jakarta Office of the World Bank.

*42 According to local newspaper reports, the retail rice price in July was lower than that of the preceding month.

*43 According to the Jakarta Post dated August 9, 1999, BULOG signed contracts in July 1999 with IndSing Thai Trading in Singapore and King Sun Co. in Hong Kong under which 800,000 tons of rice are to be supplied between August 1999 and May 2000. The volume and procurement period for rice imports are not generally announced for fear of affecting the international market.

CHAPTER 4: ISSUES FOR SMOOTH DISTRIBUTION OF RICE

As has been described above, the distribution of rice in Indonesia is mainly carried out by the private sector. Although large distributors were greatly affected by a poor harvest extending over 2 years and the economic crisis, the distribution system as a whole was able to continue functioning by small to medium sized distributors who complement the large distributors. In an emergency, however, the role of BULOG, an agency in the government sector, is extremely important in such areas as the management of the Social Safety Net (SSN). It can be said that Japan's rice assistance has played a certain role in meeting the rice shortages. In this chapter, we will examine the issues in ensuring the smooth distribution of rice for the future in the light of the various factors mentioned above.

4.1 THE ROLE OF THE PUBLIC SECTOR

In essence, the private sector has been acting based on market mechanisms and is functioning properly under the normal circumstances. However, in an emergency case such as the one that arose this time, it is impossible for the private sector to deal with the situation in isolation. Therefore, the role of the public agency, BULOG, remains important in terms of complementing the private sector in such area as implementing the targeted rice subsidy program (OPK), or transporting rice to remote areas.

Therefore, when the Indonesian government reviews the function of BULOG as a part of the stated-owned enterprise reform based on the results of the international auditing, it is necessary to consider supplementing the function of the private sector by improving the monitoring system of rice distribution in the country as well as improving the efficiency of the organization. OECF also needs to follow the reform of BULOG.

4.2 PLANS FOR THE TARGETED RICE SUBSIDY PROGRAM (OPK)

Since natural conditions in each region differ substantially in Indonesia, it is highly likely that food shortages will occur and the number of the poor will increase again as a result of future natural disasters even after the country over-

comes the present economic crisis. Therefore, it is advisable that Social Safety Net (SSN) programs such as OPK and others, be further established as emergency measures.

OECF will support the SSN programs, including OPK, by co-financing them with the World Bank. In order to help build an SSN program which should be efficient and sustainable, the project will take the following measures in addition to support of SSN program using the counterpart fund. (i) Implementing appropriate targeting of the recipients of the project. (ii) Strengthening the partnership among the government, aid organizations and NGOs. (iii) Preparing the monitoring system for the program.

4.3 THE IMPACT OF RICE IMPORT

It is considered that the liberalization of rice imports by private traders is an effective complement to the shortages in times of poor harvest. This has also enabled large distributors, who have been distributing rice among the islands, to provide inexpensive rice to consumers on different islands by delivering it directly and thus reducing costs.

However, if the price of the Rupiah rises and rice imports increase when international prices become lower than domestic prices, the latter will plummet, affecting the income and motivation of the rice farmers, leading to another social problem. It might also cause conflict with the government policy of protecting farmers guaranteed by the floor prices. Therefore, it is essential that the Indonesian government needs to examine the measures concerning this issue from various perspectives.

4.4 PREPARING STATISTICS ON FOOD SITUATION

The statistics on production, distribution and consumption will be the base when the public sector tries to make an assessment on policies regarding the amount of rice to be imported and so on. In Indonesia, however, the technology, the systems and the organizations dealing with statistics are behindhand. Accordingly, the data on the distribution of rice is not only inadequate, but unreliable.^{*44} Thus, it is important that efforts are made to fill in gap of the statistical data as well as improving the degree of accuracy and speed at which such data is compiled.

*44 According to JICA, for example, when the area under rice cultivation was estimated based on the Japanese method, it proved to be only about 80% of the estimates based on the Indonesian statistics.

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