

# **FOOD SECURITY IN INDONESIA SHORT RUN AND THE LONG RUN ISSUES**

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### Introduction

1. During the past three decades, Indonesia made remarkable progress in improving food security. Increasing food production during the first three five years development plan of 1969-1984 was dominated by the effort of achieving self-sufficiency of rice. The successful achievement of rice self-sufficiency in 1984 has improved the status of food availability. The domination of rice in agricultural development was quite understood, since rice was contributed about 18% to Indonesia's GDP in 1968 and shared more than 30% of consumer budget in urban area. Rice became a dominant factor to the formation of inflation and placed the prime attention in the maintenance of economic stability. Rice was also poses a strategic role in employment generation for the rural sector.
2. Until 1996 food policy followed by the Indonesian Government was oriented toward improving the nutritional status of population through increasing the availability of food items. Increasing domestic production has been the main instrument for the maintenance of sufficient food availability, while import was considered as complementary sources. Although the share of rice in the consumer expenditure sharply declines, but rice still dominant in the carbohydrate's source of the people's diet. Up to now self-sufficiency of rice remains a national goal for agriculture development aimed at maintaining food security.
3. The development of food supply in aggregate terms indicates a progressive achievement, where the energy availability has exceed 3200 kilo calorie/person/day, and this is considerably high

compared with other developing nation. However the high availability of energy does not followed by the composition food items in accordance with balance diet principle. On the other hand the impressive aggregate availability does not reflect the achievement of food security at the household level.

4. In 1996 Indonesia for the first time promulgated the food law number 7/1996 on food related mater. The law basically outlined the basic regulation on food safety and food security issues. The formal definition of food security that been adopted by Indonesia is the condition that food should be sufficient for all household as indicated by availability of food supply sufficiently in terms of quantity and quality, that food is safe, equitably available and affordable. The food law no. 7/1996 is enacted since November 4, 1996 prior to the holding of the World Food Summit in Rome. This food law has provides the legal basis for food security regulation in the future.
5. The year of 1997 recorded as the worst food crisis in history of Indonesia's economic development in the post independence. The first half of the year 1997 still dominated by optimism on the stability of food production as experienced in the previous year of 1996. That achievement resulted the amounting domestic rice surplus available in domestic market where the domestic purchase of rice by government exceeded 2 million tons. However entering the second half of the year Indonesia faced double disasters. The disasters to the Indonesian economy are the prolonged drought which has serious effect on food production, and the monetary crisis started since the end of July 1997. The long drought persist until early 1998 which caused delay of rice planting for the main crop season and harvesting in the consecutive year. Therefore rice production has below the target for two consecutive years of 1997 and 1998.
6. The double disaster has worsened the food security situation in these two consecutive recent years. The insecurity of food in Indonesia exists in terms of aggregate supply as well as the ability of the community to access the limited supply of food. Recent food

insecurity situation in Indonesia has produced an important lesson, because it's also produced creative thought on food security solution, where in the past solely depend on market oriented subsidy and government's intervention mechanism. This paper trying to review the achievement in food security development and outlines the possible approaches for food security development under the free trade regime when the cloud of exchange rate crisis is over.

### **Food Security Status: Policy and Progress**

7. Food and nutrition development in the six five year development plan (1994/95-1998/99) have been oriented toward achieving certain goals as follows:**a.** improvement of food security status; **b.** Improvement in the Balance Diet of the population as indicated by the improvement Balance Diet Index (known as score of PPH = Pola Pangan Harapan or desirable dietary pattern) at direct household consumption and aggregate availability levels; **c.** achievement of average direct energy consumption by household at minimum of 2150 kilo calorie/person/day and the protein consumption of 46.2 grams/person/day, while at the availability level are 2500 kilo calorie and protein of 55 grams (40 grams from plan source and 15 gram from animal source); **d.** free from food items that dangerous to human health; **e.** better institutional supports; **f.** increased people awareness and understanding on nutrition; and **g.** reduced for basic nutrition prevalence.
8. To achieve the above-mentioned goals the government adopt five basic policy namely: **a.** improving food security status; **b.** Diversification of food consumption; **c.** improving food safety condition; **d.** institutional development; and **e.** improvement of nutritional status. Based on this policy three basic programs have been adopted namely: maintenance of food sufficiency, food diversification, and improvement of nutritional status and supported

with several programs related to education, training, extension and research and development. During this five year development plan, especially up to the year of 1997 has been implemented following the set guidelines.

9. As reported earlier that in aggregate term Indonesia has accomplished her task to meet the need of the basic food for the population. One of the achievement is the improvement in average energy availability has exceed 3,000 calorie/person/day. The energy availability has increased from 2,899 calorie in the end of 1993 into 3,208 in 1996. In addition the availability of protein has improved as well. Provision of sufficient food supply has been made possible because of increased domestic production couple with increasing import of all food items. This effort has made possible for Indonesia to acquire impressive improvement in aggregate food supply.
10. Judging from supply side, the effort of maintaining absolute food self-sufficiency, particularly rice, Indonesia has fails to manage it as import increases. There diverge arguments on the failure to maintain absolute self sufficiency in rice, ranging from declining rice field, macro policy bias that causes disincentive to rice farming, and the growing competition in land utilization within the agricultural uses themselves. On the other hand the record on food trade balance appears with different story, where Indonesia has enjoyed continues surplus trade balance for food since 1983 and still gains favourable aggregate surpluses even this day.
11. During the period of 1990-1998 rice import is increasing and the average quantity of import is 794,408 matrix ton. Other basic food items have also increased with the same trend. The average annual imports for other food commodities are: corn 470,000 mt, soybean 607,000 mt, wheat 2,883,000 mt and sugar 553,000 mt. On the other hand the food trade balance during 1990-1997 has increased with the amount annual average surplus of trade balance for all food items amounted to more than 1,775.5 million US \$. This contradiction indicates that food sector has increasingly poses

competitive strength, however cereal production is not necessarily to be forced into absolute sufficiency.

12. This split trend between absolute sufficiency and monetary food trade balance has invites a big debate in formulating food security policy for the future, whether Indonesia should fight for rice self sufficiency or neglect it. The sixth National Workshop on Food and Nutrition held in 1998 has recommended the new approach that food security is the prime objective and self reliance is the way to achieve it. Self reliance has allow some flexibility in managing domestic production and the maintenance of sufficiency in food supply and provided with row for healthy competition in resource utilization as well as the achievement of food diversification.
13. The number of people experiencing the undernourished status also declined significantly in terms of proportion to the total population and in absolute number. The most promising feature is the result that distribution of food consumption is more even as compared to the income distribution, hence income inequality do not appear as the barrier to the improvement of nutritional status (Jatileksono, 1997). This study also reported the progress of food security development as evaluated from the perspective of the risk of being fall into food insecurity situation using the aggregate household food security index introduced by FAO. In fact the progress on nutritional status has placed Indonesia into the group of highly secure country in terms of aggregate food security index as reported by FAO (1996). The improvement of the nutritional status of the population has been the direct impact of poverty reduction from 70 million people in 1970 into 27.2 million in 1990. The farther reduction of poverty incidence has gone down as far as 22.5 million in 1996 or 11% of the population before worsened back due to recent economic crisis. The lessons from Indonesia's development also support the argument that poverty is the prime caused of food insecurity.

14. The number of urban household experiencing undernourished has declined from 44 % in 1984 into 20.40 in 1996. On the other hand seems to have a slower progress in the reduction of undernourished people, where during the same period the percentage of undernourished household declined from 37 % to 23.2 %. This calculation has include the estimate of food consumption outside the house (Jatileksono, 1997). Nutrition experts usually only considered the real observable consumption in the household for accuracy purposes.
15. Surprisingly up to 1996 the evidence of energy inadequacy or energy deficiency is dominant in Java that has well known as the food surplus's regions. Being the food producing regions East and Central Java have dominated the feature of energy deficiency similar to what happening in Nusa Tenggara's provinces. The explanatory factor to the heavy incidence of undernourished in the situation of plenty supply is the poverty incidence. This argument is confirmed by the evidence of vocational distribution of poor family within the region, where the locations with poor resources are suffer more than the other part.
16. The progress on improving food security during the last decade is actually contributed by two important factors, firstly increased food availability resulted from increased domestic production and import of wide range of food items, and secondly increased per capita income coupled with speed poverty reduction. However in macro terms the burden of the country on maintaining food availability remain unease, since population growth remains positive and caused continues growth in food demand. Rice as the main staple food economically has become less important to macro economic consideration as per capita consumption started to decline and its share the consumer expenditures become smaller made it less sensitive to inflation formation. The Central Bureau of Statistic (CBS) has reported that direct household consumption for rice has consistently decline over the three periods of national socio

economic survey in 1990 (118.14kg/cap), 1993 (116.38kg/cap) and 1996 (111.49kg/cap).

17. The concept of food security adopted in the food law no 7/1996 is basically consistent with the principle of self reliant adopted in the Rome Declaration of the 1996 World Food Summit. The law basically considers that food is fundamental human right having strategic position in human resource development, that it should be safe, better quality, sufficient in quantity and variety oriented for the welfare of the community, and food should be viewed as traded commodity. On the food security matter the law also provide a basis for national food reserve that are consists of government reserve and community reserve. The government is obligated to promote community base food reserve. Over the last three decades of food price stabilization policy the orientation only limited to stabilizing market prices and do not involve directly in addressing food insecure group. The enactment of this food law is an important step in the development of institutional support to the food system.
  
18. Before embarking into other section the high light of the status of food security development up to the period of the economic crisis come can be summarize as although there are significant increased in food availability and improved the aggregate household food security status, the number of undernourished people are still relatively high. Rice self sufficiency facing a severe challenges to maintain it, but economically Indonesia shows stronger in managing food trade balance surpluses. This suggest that sufficiency is no longer the sole determinant for food security improvement. Rising income and more opening up economy will suggest greater variety of people diet.

## **The Impact of Double Disasters**

19. The rice production has enjoyed a high growth in the year of 1995 and 1996 when recorded increase of 6.65 % and 2.76 % consecutively. This impressive brought rice production exceed the trend required to maintain on trend self-sufficiency. However due to heavy drought in the second half of 1997 rice production felt by 3.64% and the impact was even longer until the early quarter of 1998 which caused 2-3 months delay in planting of the main crop season of 1997/98. It caused the forecast for 1998 production down below the 1997 level, earlier forecast indicated that 1998 production only slightly lowering down by 2.45%. But as the second harvest was not quite successful the second forecast is even worst indicated that the production is expected to decline further by 6.4%.
  
20. The rice situation in 1997 was considerably abnormal, since the first half of the year the optimistic feature there. This was indicated by the performance domestic procurement by BULOG exceeded 2 million ton, but during October-December rice price increased about 10-15% in a very short period and another increase experience in the next first quarter of 1998. Using the production-supply-consumption-stock movement reported by CBS (1998) indicate that the carry over stock in the community by the end of December 1997 was only 1.19 million ton or two weeks consumption. In the normal year the average stock during the off-harvest season about 1.5 x monthly consumption, hence the government market injection needed to stabilize market price only about 10-15 % of monthly consumption.
  
21. The situation in the first half of 1998 is worst as the forecast of rice production seriously decrease due to late planting and lower productivity. The situation may be the worst during the post 1984, where net production-consumption balance is deficit. Over many years there are a margin to cover stock replenishment and additional demand for new households and expansion of rice trading activity. The forecast for rice flow during the year of 1998 can be presented as follow:

Table 1: Forecast of Rice scale flow 1998

No	ITEMS	Quantity (million ton)	Expl
1	Production in rice equivalent (CBS 2 <sup>nd</sup> forecast)	25.95	
2	Consumption (Base on SUSENAS 1996 in and outside household)* -Balance	26.94 0.99	
3	Stock-production-consumption flow a. Carry over stock at community level in Dec 31,1997 b. Harvested up to August 31,1998 (78% of annual production) c. BULOG's domestic procurement (as of 31/8/1998) d. BULOG's distribution to the market (1/1/98-31/8/98) e. Total rice available at the community (trade, industry & household) f. Consumption utilization (Jan-August) g. Carry over stock at the market as of 31/8/98 h. Incoming harvest expected (1/9/98-31/12/98) i. Consumption (1/9/98-31/12/98) j. Forecast of BULOG's distribution (1/9/98-31/12/98) k. Expected ending stock at community as of 31/12/98	1.19 20.24 0.13 3.38 24.66 17.96 6.72 5.98 8.96 2.60 6.37	+ - + + - +

Looking at from the stock flow of rice, the rice supply shortage was seriously affect the market during the first quarter of 1998, where no harvest was available like in the normal situation. Delay in planting in the end of 1997 has a serious effect rice supply, particularly during the depreciation of rupiah that caused import on other food items also disrupted. Actually the total food supply during that period was not as serious as recent period, because some basic foods other than rice i.e. wheat flour, sugar and soybean remain at the same price and remain subsidized by government, hence pressure on high price of rice economically and socially has been arose again.

22. The total rice supply through out the year of 1998 seems considerably sufficient, although December-January will be many big event related to Christmas and New Year, Idul Fitri and Chinese new year. This optimism is based on the forecast for ending stock of more than 6 million tons will be sufficient for two month consumption before the fresh rice from main crop harvest enter into the market in late February 1999. The weather forecast also indicated the rainfall will above the normal days, hence people are asked to prepare for the possible damage cause by the existence of LA NINA this year. Therefore the macro rice situation is considerably will be no much problem, but micro level there are still many obstacles to be confronted by the government if household food security is the prime concern.
  
23. In the short run there are three principal food security challenge faces by Indonesia, these are:
  - ❖ to ensure that adequate supplies of food are available, through domestic production and trade, to meet the national needs;
  - ❖ to protect the food consumption of the poor (food affordability challenge); and
  - ❖ to reduce the volatility of availability at the household and national level.

The three objectives are inter related and required two pronged strategy at macro and micro level to give the instrumental inputs to the maintenance of peaceful situation at the grassroots level.

24. Looking from different angle, more specifically from accessibility of the people there are some factors constraining them to access the available food supplies. Negative economic growth during this year coupled with the collapse of the private banking sector has brought significant effect on unemployment in urban areas. At present many reports are estimating that the number of unemployment has reached nearly 17 million. The urban poor and poor family in Java is suffering more than those are in outside Java. This partly due to the nature of the economic activity, those who involve in the export oriented agribusiness are gaining from the rupiah crisis. The increasing number of unemployed worker has significant effect on jobs availability in the urban sector.
25. The data on the household condition organized by the National Family Planning Board also indicated that the number of the poorest family (Pra Sejahtera) has increased due to recent economic crisis. The total number of household falls into category of poorest (KPS) are 7.998 million households and the poor (Sejahtera 1) are 9.478 million households, make in total of 17.476 million households (BKKBN, August-Sept Report). The CBS estimate on poor population at present is nearly 80 million people. Both data are match each other and complementary in identifying the poor. The BKKBN data provide individual household list on the status of household, although there are different approach in identifying the poor. However it's still lack of capability in identifying urban citizenshipless that are not in the list of poor family.
26. In approaching the food insecurity situation Indonesia has developed a Food and Nutrition Surveillance System (FNSS) which was originally implemented in the areas facing hunger and malnutrition. Since 1994 the system has been adopted as a part of improving the effectiveness of food insecurity monitoring system. This system is basically consists of three sub-system namely (i).

production and availability surveillance sub-system (MOA); (ii). distribution surveillance subsystem (BULOG); and (iii). consumption and nutrition sub-system (MOH). This team coordinated by Ministry of Food and Horticulture (MOFH). The system has able to identify the food insecure areas base on three basic category of the record in production failure, existence of food shortage and the evidence of undernourished. However this approach does not provide any information concerning the list of household facing the famine threat. For the purpose of improving the effectiveness in targeting the on household has adopted in monitoring the food security situation.

## **Policy for Confronting Food Crisis**

27. The economic crisis has brought Indonesian sign a moratorium as economic policy reform package with the International Monetary Fund for securing foreign loan and assistance. One importance aspect under the moratorium is the liberalization of several marketing board for food commodities and schedule for reduction of subsidy. Starting from November 1, 1997 schedule for trade liberalization has been made among others are:
  - (i). Dismantling monopoly of food importation for sugar, wheat grain, corn, feeds and soybean. The government has consistently implementing this program and to some extend has been done faster than it's schedule. The completion of full trade liberalization was done on September 1, 1998.
  - (ii). BULOG still responsible for importing rice and distribution to the market, however some new arrangement has been made by the Reform's Government in performing better transparency on rice importation. At present importation of rice by the private sector is allowed for 6 months period starting September 1998.

- (iii). Ban on export of subsidized food items to avoid supply shortage in domestic market. This policy considered important during the situation where sharp price differential between domestic and neighbouring country exists. This policy will automatically relaxed when exchange rate of rupiah has come to its parity value.
  - (iv). In view of securing the second rice crops of 1998 and 1998/99 main crop the government has right off the outstanding loan of farm credit, keeping fertilizer subsidy and expanding the absorption of farm credit. In addition government through MOH has organized an accompanying program for increasing food production. About 5,000 students and university graduates has been recruited and currently living in the field with the farmer.
28. In coping with shortage and food insecurity problem the Government of Indonesia has introduced new distribution package of rice for the poor households. Starting on July 1, 1998 at pilot scale the special rice sale to the poor household has been implemented in Jakarta Metropolitan Province and the Suburb of Bogor, Tangerang and Bekasi. Starting August 1, this year the operation has been expanded into 53 districts scattered in 15 provinces those are facing potential food insecurity. And starting October this year the operation is expected to cover all the poorest household all over Indonesia. The province of East and Central Java who have the highest rank in the number of poor household has started to do the special sales operation and reported very successful compared to other region.
29. The special rice sale serve as the base for addressing the potentially food insecure group, where each family only eligible to buy 10 kilograms of medium quality of rice every month at subsidized price of Rp. 1,000.00. The rice is provided by BULOG down into the village area or distribution point that are agreeable by the parties concern.
- The local government act as the leader in special rice sale, while the family planing officers responsible for providing the list of the

household eligible for special rice sale. The idea of the sale is basically an embryo for developing such food stamp network. This new scheme has been considered as an instrument for targeting the subsidy. One important feature of this new scheme is transparency, where the government invites NGOs and local universities to serve as an independent evaluator for the operation of the new scheme. The local community organization and self-reliance group promoted by different NGOs or institution to take a part in securing the distribution of rice from the distribution point to the beneficiaries. This approach is expected to improve the effectiveness of the distribution to the needy.

30. The evaluation done by Bogor Agricultural Institute and Institute for Agribusiness Development has indicated the superiority of the scheme in targeting the subsidy. Some flaws in the implementation has been tackled by government through improvement of the operational guideline and intensifying the coordination with the local government. The availability of the data at different level of administration is considered very important in assuring the process of distribution. The local authority is suggested to provide special card to the poor family that in the future can be integrated with the other purposes such as health services. The study done in Lombok West Nusa Tenggara reported that the 10 kg per month is equal to cash transfer of roughly Rp. 12,000.- per month for each participating household (Wibie, 1998). This amount is significant to the small family, but decline in significance for larger households. The study also suggests that for the time being where infrastructures for food stamp limited, the superiority of discounted rice sale as compared to cash transfer is persists if nutrition is the concern.
31. In addition to special rice sales the government also expand the allocation for social food assistance program, where under the normal situation only been given to the Victims of natural disasters.

But due economic crisis the program also include the hunger family who do not have the capacity to pay, even at reduced price. To make them having better access the special rice sales also allow different arrangement for organized poor group to be able to buy at consignment basis. In a more systematic approach the social safety net programs has been arranged. The projects under this program has been designed to be a quick yielding, empowering, employment and income generating, and using available local resources. The program is basically provide an integrated effort to promote self reliant food security.

32. In response to the need for the crisis center the government has also formed a National Team for Food Security Monitoring with the main tasks to coordinate three aspects in handling the food crisis. These are: **(i)** identification of food insecure areas and targets group; **(ii)** identification of sources of food assistance; and **(iii)** coordination and monitoring of distribution food aids provided by all parties including the distribution by NGOs using the local and domestic sources of assistance. The team is lead by Minister of Food and Horticulture and reported to the Cabinet monthly on the food indicators.
33. The handling of programs to address the impact of the crisis has accumulated some experiences including introduction of new packages that not been introduced before. Among others the relaxation of the institutional support to increase the absorption of financial facilities and the participation of NGOs in confronting the problem. This in turn will affect the design of future programs that should be well targeted and food security oriented. Therefore the community base food reserve should be promoted and strenghtened by giving more attention on assisting them to organize the local food security arrangement. This idea also persuant to the mandate of the food law no 7/1996.

## **Medium and Long Term Food Security Perspectives**

34. The existence of present crisis should not shift the direction of addressing long-term food security objectives. The recent food problem is fundamentally in macro economic problem and more specifically an exchange rate problem and not food supply constrains. Economic growth, food security, poverty reduction and resource management always be the key of rural development. That is why there is a need for a market oriented environmentally sustainable agriculture. This direction will bring the consequence of whether self sufficiency and input subsidy is necessary when food trade sector has been liberalized.
35. The long-run direction of food policy addressed for solving a comprehensive food security has been recommended by the Sixth National Workshop on Food and Nutrition 1998. The workshop recommend four area of policy formulation as follows:
- (i). Food availability and distribution, where the policy on food availability and distribution should be directed toward the maintenance of stable food supply (either produced domestically or imported) base on self reliant principle, strengthening national food reserves both private (community) and public, improving distribution system and specific food security program for the food insecure groups.
  - (ii). Diversification of food consumption, where diversification of consumption is oriented toward improvement quality of the diet in accordance with desirable dietary pattern with sufficient quantity and nutritional quality.
  - (iii). Food Safety, where food safety development is oriented toward reduction of contamination, improvement of infrastructure for food production, processing, trade and distribution that meet the sanitary requirements and reduction contamination cases nation wide.
  - (iv). Institutional development, institutional support is aimed at setting organization, rules and regulation, administration and human resources development.

36. The above-mentioned policy package suggested by the workshop specifically address the introduction of non market model for food security purposes, while the mainstream of agriculture development should be commercially oriented in nature. The non market approach aimed at utilizing the locally available resources and empowering the rural poor, this may include the food and nutrition program, marginal area development program and rural cottage industry.