# CASE STUDY ON FRUIT EXPORT IN INDONESIA: PRODUCTION AND ITS POTENTIAL EXPORT

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## I. Background

Indonesia is characterized as an agrarian country for its around 41 million houshold farmers depend on agriculture for their lifes. The role of agriculture on Indonesian economy is undoubtedly very important, not only as a source of income for the family but also because historically agriculture has been considered as a way of life of most of Indonesian people. Its importance as a source of life can also be depicted from its share on GNP which was amounted to 16-17% during 2002-2004, the second biggest contributor after industrial sector. In a broader range of agribusiness system, this share raises up and serves as the first contributor to the national GNP.

So far, efforts had been made to attain the state of high agriculture competitiveness from existing comparative advantages. In its development, however, the government has ordered the development priority to food crops in the first category, and other such as horticulture, estate crops, and livestock in the next priority. Contribution of food crops including horticulture to the agriculture GDP was amounted to 52%, while others were 18%, 16%, and 14%, respectively for estate crops, fisheries, and livestock (Agricultural Statistics, 2004). From the national point of view, food crops cultivation is mainly aimed at fulfilling the need of the nation for food (staple food), while others such as estate crops, livestocks, and horticulture, have been expected for foreign earning through export. For this reason and due to the budget limitation, agriculture development priority has long been focused more on food crops especially rice, and less to others. In fact, around 75% farmers are rice-cultivating farmers, subsequently, rice has been deemed as a political crop. Therefore, it is expected that through such strategy, Indonesia could provide foods for the nation (food sel-sufficiency) and at the same time, safeguard the farmers' source of income. However, due to the extreme external disturbances, which are the presence of El Nino during 1997-1998 and in 2001; and the economic crisis 1998 led to socio and political crisis up to 1999, the food self-sufficiency stage was only achieved in 1984.

Considering the domestic market absorbtion and its potential for export earning, horticulture would one of the most promising source of income for the farmers. Among other crops (food crops, vegetable oils, and livestock), horticulture is the most beneficial crop in generating income for the farmers. According to the Agriculture Census (2003), however, only 9.3 or 22.36% out of 41.6 million farmers, are horticulture farmers, while the rest 77.64% involve on other crops, namely food crops (43.5%), estate crops (18.5%), and livestock (15.63%). This is to show that in general, only 9.3 millions household farmers in Indonesia could reach high income reaching US$ 1400/year/HH, while others receive much lower income (US$ 300/year for food

crop farmer; US$ 780/year for estate crop farmer, and US$ 650/year for livestock farmer). Indonesia has grown different kinds horticulture crop, fruits and vegetables. Fruits, either tropical and sub tropical origin have been cultivated in Indonesia, the scale, however, is in general small or even subsistence.

In the current market liberalization era, every country joining the liberal or free trade arrangement under multilateral, regional, or bilateral commitment, has to open its market for products including agricultural products coming from any other member countries. This implies that the issue of competitiveness would be the only key factor in facing the present trading system. Thus, the government, has to, anyhow, build the state of competitiveness on agriculture as well as other sectors, or else, the country will loose its opportunity to capture the maximum benefit resulted from the liberal trading system.

This paper will elaborate the potential of Indonesian horticulture especially fruits in serving the consumer needs inside the country as well as taking the market opportunity outside the country. Problems hampering the competitive farming performances of fruits and assenting programs or activities to obtain the competitive level of playing fields against import fruits, will be further discussed.

# II. CURRENT SITUATION OF FRESH FRUITS

## 2.1. Harvested land, Production, and Consumption

**Harvested land.** Total harvested land of fruits in Indonesia is less than 1 million Ha (± 0.7 million Ha), much lower than the harvested land of paddy, a single commodity of food crops, which is amounted to nearly 12 million Ha. During 2000-2003, the harvested land of fruits was constantly increasing from 0.41 million Ha in 2000 to 0. 72 million Ha in 2003, but it was then slightly down to 0.70 in 2004. The decreasing harvested land of fruits was due to attributed to the decreasing harvested land of durian, rambutan, mangoes teen, and other local-traditional fruits cultivated under small-scale and even back-yard practices. Although the land areas for harvesting those fruits have been decreasing from 2003 to 2004, in average however, the harvested areas are positively increasing every year during the period of 2000-2004. The harvested land of mangoes is growing at the highest rate (80.2%/year), and the lowest growth was found on bananas. In 2004, the largest harvested land is accredited to mangoes (0.185 million Ha in 2004), and then followed by banana, rambutan, oranges, and other oranges (approx. 95, 80, 72, and 66 thousands Ha, respectively).

In general, the average size of agriculture including fruits farming is small (± 0.3 Ha/HH farmer), and in most cases, the fruits farmings are practiced in back-yards of the family. This condition has been for a long time, the critical factor impeding the achievement of acceptable international quality standards demanding by developed importing countries. Establishing new cultivated lands for fruits is a must in order to increase fruit supply and cost efficiency in the country, thus Indonesian fruits will be able to compete with imported fruits.

**Table 1. Harvested Land and Production of Fruits, 2000-2004**

| Commodities | Year | | | | | % Grwth 04-03 | % Avg Growth |
|---|---|---|---|---|---|---|---|
| | 2000 | 2001 | 2002 | 2003 | 2004 | | |
| **Harvested Land (000Ha)** | | | | | | | |
| Mangoes | 44.18 | 44.21 | 184.66 | 158.90 | 185.77 | 16.92 | 80.18 |
| Oranges | 37.12 | 35.37 | 47.82 | 69.14 | 72.31 | 4.58 | 19.91 |
| Banana | 73.54 | 76.92 | 74.75 | 85.69 | 95.43 | 11.37 | 6.95 |
| Durian | 23.02 | 49.81 | 41.03 | 53.77 | 48.28 | (10.21) | 29.89 |
| Mangoes teen | 5.19 | 4.61 | 8.05 | 9.35 | 8.47 | (9.42) | 17.56 |
| Other Fruits* | 223.22 | 272.03 | 294.27 | 345.12 | 296.86 | (13.98) | 8.33 |
| **TOTAL** | **406.27** | **482.94** | **650.59** | **721.96** | **707.12** | **(2.06)** | **15.62** |
| **Production (million Tons)** | | | | | | | |
| Mangoes | 0.87 | 0.92 | 1.40 | 1.53 | 1.44 | (5.82) | 15.08 |
| Oranges | 0.64 | 0.69 | 0.97 | 1.53 | 2.07 | 35.38 | 35.19 |
| Banana | 3.75 | 4.30 | 4.38 | 4.18 | 4.87 | 16.69 | 7.17 |
| Durian | 0.24 | 0.35 | 0.53 | 0.74 | 0.67 | (8.89) | 32.56 |
| Mangoes teen | 0.03 | 0.03 | 0.06 | 0.08 | 0.06 | (21.44) | 36.04 |
| Other Fruits | 2.88 | 3.67 | 4.32 | 5.50 | 5.23 | (4.91) | 276.55 |
| **TOTAL** | **8.41** | **9.96** | **11.66** | **13.55** | **14.35** | **5.88** | **14.39** |
| **Productivity (ton/ha)** | | | | | | | |
| Mangoes | 19.83 | 20.89 | 7.60 | 9.61 | 7.74 | (19.44) | (12.82) |
| Oranges | 17.35 | 19.55 | 20.24 | 22.13 | 28.64 | 29.45 | 13.74 |
| Banana | 50.95 | 55.91 | 58.65 | 48.75 | 51.08 | 4.78 | 0.63 |
| Durian | 10.29 | 6.97 | 12.80 | 13.60 | 14.00 | 1.48 | 15.14 |
| Mangoes teen | 5.08 | 5.60 | 7.71 | 8.45 | 7.33 | (13.27) | 11.06 |

Source: CBS and DG of Horticulture Production

* Other fruits including pineapples, rambutans, durian etc.

**Production.** Different kinds of tropical and sub tropical fruits have been grown in Indonesia. Out of many kinds of Indonesian fruits, bananas, mangoes, pineapples, durians, and mangoes teen are those fruits that are most demaded by consumers. Only few, such as pineapples and oranges, are grown in a quite large scale, the rest is grown under small scale and back-yard farming. The highest production can be found in banana, followed by oranges and mangoes. Since 2001, Indonesia has produced above 4 million tons of banana ( 4.87 million tons in 2004), though its average growth rate from 2001 to 2004 was the smallest (7.2% per year) among other fruits. The production of mangoes in 2004 was 2.07 million tons, the highest production during 2000-2004. Significant growth of oranges occurred from 2003 to 2004, this is due to the investment on orange plantation in Kalimantan during that period. In 2004, the production of oranges, which was in 2003, had similar production with mangoes, has reached 2 million tons, surpassing the production of mangoes. Durian production in 2004 is lower than the production of 2003, however, it was nearly 3 times higher than the production in 2000. Nevertheless, it was not enough to supply the domestic needs for durian (Figure 1, Annex 2), thus since 2004, durian from Thailand has overflowed Indonesia (Table 5).

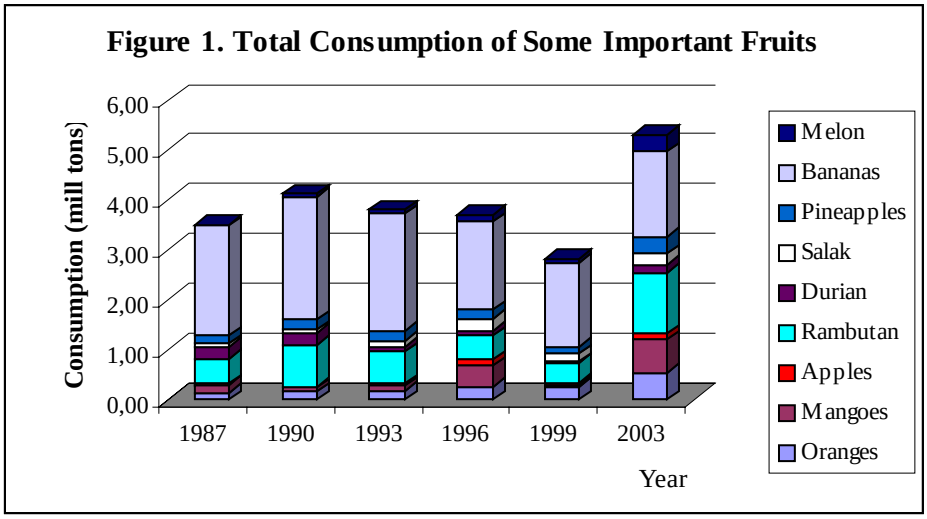
In general, the total production of fruits in Indonesia have been continually increasing from 8.41 millions ton in 2000 reaching 14.35 million tons in 2004 (Table 1). However, out of many kinds of tropical fruits grown in Indonesia, only oranges showing constant trend of increase (average growth rate is amounted to 35.2% per year during 2000-2004), while other fruits showing irregular growth, and negative growth was found from 2003 to 2004 (except banana). Nonetheless, compared with the production yielded during 1993-1997, the growth rate of fruits during 2000-2004 was much better; it grew at a rate of 5.88% during 2003-2004 and 14.4% per year during 2000-2004.

**Consumption.** Based on the National Survey and Census (Susenas) conducted every 4 years showed that total consumption of fruits in Indonesian during 1990-2003 was increasing at a rate of 5.55% every year. The small increase in total fruits consumption was likely to be due to the slow increase in incomes and also the decreasing consumption on banana, rambutan, pinepples, and other local-tropical fruits such duku and durian. On the other hand, the consumption on water melon, apple, oranges, mangoes, and salak increases quite significant. The increase consumption on apple and oranges has activated the importation of both fruits. Imported apple and oranges can be easily found in all region of Indonesia, either in traditional or super market. The increase consumption on both fruits could be related with the increase on the income of middle-upper consumers, in addition to the relatively cheaper price of imported ones compared with the local production.

**Table 2. The Consumption of Some Important Fruits in Indonesia (kg/capita)**

| Commodity | Year | | | | | | Avg Growth (%) |
|---|---|---|---|---|---|---|---|
| | 1987 | 1990 | 1993 | 1996 | 1999 | 2003 | |
| Oranges | 0.73 | 0.88 | 0.94 | 1.30 | 1.20 | 2.44 | 32.26 |
| Mangoes | 0.99 | 0.42 | 0.52 | 2.13 | 2.60 | 3.12 | 257.61 |
| Apple | 0.10 | 0.10 | 0.21 | 0.68 | 0.16 | 0.52 | 96.47 |
| Rambutan | 2.96 | 4.78 | 3.48 | 2.44 | 1.98 | 5.72 | 34.89 |
| Durian | 1.46 | 1.25 | 0.52 | 0.52 | 0.16 | 0.73 | 42.85 |
| Salak | 0.31 | 0.42 | 0.62 | 1.20 | 0.73 | 1.04 | 35.99 |
| Pineapples | 0.99 | 1.09 | 1.04 | 0.94 | 0.68 | 1.56 | 19.53 |
| Banana | 12.95 | 13.83 | 12.58 | 9.05 | 8.27 | 7.96 | (8.53) |
| Melon | 0.10 | 0.31 | 0.47 | 0.78 | 0.47 | 1.56 | 103.95 |
| Other Fruits | 6.30 | 6.86 | 5.62 | 5.47 | 2.40 | 5.06 | 8.57 |
| **Total** | **26.89** | **29.94** | **26.00** | **24.51** | **18.65** | **29.69** | **5.55** |

Source: BPS (Central Bureau for Statistics)




## 2.2. Fruit Processing Industries

Fruit processing industries have not been well developed in Indonesia, especially for the large or industry scale. Fresh fruits are still the main products demanded.by domestic consumers. This condition has caused Indonesia to mainly fresh fruits, only pineapples are exported in the processed product. Recently, the government has facilitated the development of fruit processing units in the village level. The purpose is to provide villagers employment opportunity as well as farmers additional income. The program is yet to be move forward, intensive guidances and facilitation such as provision of credit, technology, and access to market are urgently needed if the purpose is to be met.

## 2.3. Marketing Facilities and Institutions

Marketing facilities and institutions are of critical instruments for an efficient marketing of agricultural products. However, the needed marketing facilities and institutions are poorly developed. Farmer producers have very limited access to market in order for them to sell their products. Farmers are normally price taker in the poor marketing distribution system, it is therefore they have very bargaining position. The case is even worse for the farmers since they are small-scale andeven landless farmers. In Indonesia, traders coming to the village, known as ‘tengkulak’, are the main player in marketing agricultural products. Their role in marketing the products are essential and needed by farmers, however, since the system becomes monopoly, farmers, in all cases, have no bargaining power. In the case of that farmers have to use credit provided by the tengkulak, the situation becomes even worse, the products have been sold before harvesting, normally with lower prices. Many efforts have been made in an effort to bring farmers access to the market, however, the expected condition is yet to be achieved with specific and focus programs.

## 2.4. Export of Fruits

Different kinds of fruits have been exported to neighboring countries like Singapore and Malaysia, Middle East Countries, China, and others. Not only fruits recognized as tropical

fruits but also some sub tropical fruits that can be grown in Indonesia, though in small amount, have been sold to those countries. However, based on the export share, only some of them can be deemed as important sources of national revenue (Table 3 and 4). In general, the trend of total fruits export is slightly improved (Figure 1). In 1999, fruits export has already reached 0.26 million tons, however the amount of export is not improving after 5 years, export volume of fruits in 2005 amounted Based on data on Table 3 and 4, almost all of the exported fruits of Indonesia is in the fresh form except for pineapples and oranges, the export share of processed products is higher than the fresh products. Moreover, the share of export volume and value of pineapples (mostly canned processed products) in 2005 is amounted to 0.23 million ton and US$ 129 million. North Sumatra, West Kalimantan, East Java, and East Nusa Tenggara are the main region for producing fruits for export.

**Table 4. Export Volume of Fruits, 1999-2005 (thousand Ton)**

| Commodity | Year | | | | | | | Avg Grwth,% |
|---|---|---|---|---|---|---|---|---|
| | **1999** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | |
| **Pineapples** | 163.76 | 154.76 | 158.76 | 181.10 | 148.05 | 169.76 | 231.99 | 7.37 |
| Fresh | 1.13 | 2.98 | 2.02 | 3.73 | 2.28 | 2.43 | 0.64 | 18.37 |
| Processed | 162.63 | 151.78 | 156.74 | 177.36 | 145.77 | 167.32 | 231.35 | 7.50 |
| **Banana** | 76.14 | 2.22 | 0.29 | 0.58 | 0.24 | 1.19 | 3.65 | 76.65 |
| **Tamarin** | 6.22 | 7.33 | 5.69 | 7.02 | 8.67 | 20.97 | 15.80 | 26.59 |
| **Other juice fruits** | 5.15 | 5.08 | 7.55 | 4.69 | 4.67 | 3.09 | 0 | (20.81) |
| **Other fruits** | 5.08 | 5.18 | 4.96 | 16.80 | 7.22 | 5.21 | 7.34 | 32.08 |
| **Mangoes teen** | 4.74 | 7.18 | 4.87 | 6.51 | 9.30 | 3.05 | 8.47 | 34.39 |
| **Mangoes** | 0.64 | 0.49 | 0.45 | 1.57 | 0.58 | 1.88 | 0.94 | 54.73 |
| **Citrus** | 0.61 | 0.74 | 1.04 | 0.89 | 0.86 | 0.27 | 0.57 | 14.43 |
| **Oranges** | 0.59 | 0.40 | 0.84 | 0.60 | 0.38 | 1.30 | 0.77 | 35.65 |
| Fresh | 0.28 | 0.31 | 0.67 | 0.48 | 0.15 | 0.64 | 0.52 | 56.54 |
| Processed | 0.31 | 0.09 | 0.16 | 0.12 | 0.23 | 0.66 | 0.25 | 33.05 |
| **Grapes** | 0.42 | 0.41 | 0.43 | 0.07 | 0.25 | 0.19 | 0.04 | 12.16 |
| **Rambutan** | 0.23 | 0.23 | 0.20 | 0.37 | 0.60 | 0.13 | 0 | (7.37) |
| **Total Export** | **264.95** | **187.34** | **188.04** | **225.37** | **189.65** | **210.18** | **270.66** | **2.45** |

Source: BPS, compiled by Directorate of International Marketing

**Table 4. Export Value of Some Important Fruits, 1999-2005 (million USD)**

| Commodities | YEAR | | | | | | | Avg Grwth,% |
|---|---|---|---|---|---|---|---|---|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | |
| **Pineapple** | 103.19 | 72.600 | 76.73 | 101.57 | 87.29 | 99.60 | 128.92 | 6.32 |
| Fresh | 0.73 | 1.12 | 0.89 | 2.78 | 2.32 | 0.53 | 0.22 | 15.51 |
| Processed | 102.47 | 71.48 | 75.84 | 98.78 | 84.97 | 99.07 | 128.70 | 6.44 |
| **Banana** | 11.17 | 0.53 | 0.087 | 1.08 | 0.51 | 0.78 | 1.29 | 171.35 |
| **Tamarine** | 1.88 | 0.95 | 0.63 | 1.19 | 1.49 | 3.98 | 2.82 | 28.15 |
| **Other juice fruits** | 6.58 | 8.60 | 14.24 | 9.65 | 10.35 | 3.74 | 0 | (15.43) |
| **Other fruits** | 2.95 | 3.19 | 1.88 | 6.46 | 6.57 | 3.42 | 5.46 | 37.35 |
| **Mangoes teen** | 3.89 | 5.88 | 3.95 | 6.96 | 9.31 | 3.29 | 6.38 | 26.26 |
| **Mangoes** | 0.63 | 0.46 | 0.30 | 2.67 | 0.48 | 2.01 | 0.99 | 152.37 |
| **Citrun** | 0.26 | 0.22 | 0.22 | 0.29 | 0.58 | 0.20 | 0.40 | 25.15 |
| **Oranges** | 0.51 | 0.15 | 0.34 | 0.29 | 0.28 | 1.23 | 0.49 | 52.84 |
| Fresh | 0.07 | 0.09 | 0.19 | 0.16 | 0.05 | 0.52 | 0.28 | 158.16 |
| Processed | 0.43 | 0.06 | 0.15 | 0.13 | 0.24 | 0.71 | 0.21 | 43.21 |
| **Grapes** | 0.31 | 0.37 | 0.37 | 0.03 | 0.28 | 0.56 | 0.12 | 130.37 |
| **Rambutan** | 0.42 | 0.33 | 0.17 | 0.59 | 0.97 | 0.12 | 0 | 8.99 |
| **Total** | **132.97** | **94.70** | **100.63** | **138.37** | **131.50** | **122.84** | **148.30** | **4.03** |

Source: BPS, compiled by Directorate of International Marketing

## 2.5. Import of Fresh Fruits

Indonesia is a big market for horticulture crops especially fruits. Average national fruit consumption is still around 40 kg/cap/year, much lower that recommended by FAO, which is 65 kg/capita/year. To fulfill the domestic demand for fruits, the total production has to be double increased. During 2000-2005, the amount of fruits import has significantly increased from year to year in a much higher amount than that of export ( % vs %). That is why the trade balance of fruits has been continually deficit during that period, though in 1999 it was surplus. This indicates that the outcome of the development efforts is not as expected because the increase in export is in fact much lower than the growth of import.

The kinds of fruits that its import is fast growing and absorbing the national revenue are those sub tropical fruits especially apples, mandarin, pear, dates, and grapes (Table 5 and 6). The highest amount of import was found on apples, and respectively followed by pear, mandarin, dates, oranges, and grapes, however the highest import increase in 2005 was found on durian, around 9 times of import volume in 1999, then folowed by repectively pears (7 times), grapes (7 times), apples (4 times), oranges (4 times), madarin (2 times), and tamarines (2 times). The total increase on fruits export in 2005 is 4 times as of import in 1999. This is somehow threathening the national producers, which are mainly small-scale famers. It also implies that the limited effort given through farmers empowering program for tropical-local fruits was not effective to bring those ropical fruits to substitute those fruits in the countries.

**Table 5. Import Volume of Fruits (000 Tons)**

| Commodity | Year | | | | | | | Avg Grwth,% |
|---|---|---|---|---|---|---|---|---|
| | **1999** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | |
| **Apples** | 34.24 | 74.48 | 83.23 | 85.06 | 72.24 | 115.31 | 129.01 | **28.28** |
| **Mandarin** | 27.09 | 59.73 | 62.77 | 54.88 | 32.9 | 43.47 | 53.66 | **19.21** |
| **Pear** | 12.33 | 33.37 | 41.61 | 43.58 | 32.74 | 74.31 | 80.42 | **41.73** |
| **Dates** | 10.95 | 13.32 | 8.82 | 10.27 | 10.11 | 10.62 | 11.52 | **40.53** |
| **Oranges** | 9.05 | 21.38 | 14.38 | 23.5 | 25.79 | 54.57 | 37.32 | **49.67** |
| Fresh | 7.44 | 19.51 | 12.46 | 21.64 | 24.25 | 50.94 | 29.72 | **30.14** |
| Processed | 1.61 | 1.87 | 1.92 | 1.86 | 1.54 | 3.63 | 7.6 | **66.39** |
| **Grapes** | 3.74 | 11.21 | 11.68 | 18.11 | 16.26 | 30.74 | 27.04 | **12.58** |
| **Other Juicy Fruits** | 1.3 | 1.69 | 2.45 | 1.77 | 2.29 | 4.16 | 0 | **-** |
| **Durian** | 0.19 | 0.83 | 3.78 | 7.27 | 3.1 | 11.09 | 11.35 | **114.46** |
| **Tamarin** | 0.42 | 6 | 0.81 | 0.15 | 2.81 | 1.69 | 0.85 | **51.42** |
| **Other Fruits** | 7.3 | 21.14 | 14.62 | 23.26 | 22.49 | 38.54 | 51.95 | **50.26** |
| Fresh | 6.44 | 19.55 | 13.09 | 21.33 | 20.53 | 35.29 | 42.64 | **64.58** |
| Processed | 0.85 | 1.59 | 1.53 | 1.93 | 1.96 | 3.25 | 9.31 | **32.44** |
| **Total Fruits** | **110.41** | **246.62** | **250.62** | **274.78** | **228.65** | **393.35** | **410.49** | **28.28** |

**Source:** BPS, compiled by Directorate of International Marketing, Ministry of Agriculture

**Table 5. Import Value of Fruits (million US$)**

| Commodity | Year | | | | | | | Avg Grwth,% |
|---|---|---|---|---|---|---|---|---|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | |
| **Apples** | 20.02 | 43.29 | 47.82 | 69.13 | 62.46 | 64.39 | 67.58 | **28.28** |
| **Mandarin** | 13.05 | 30.74 | 33.36 | 37.05 | 29.21 | 24.84 | 23.91 | **19.21** |
| **Pear** | 7.54 | 21.41 | 26.32 | 40.21 | 27.83 | 28.44 | 33.93 | **41.73** |
| **Dates** | 5.16 | 12.8 | 8.16 | 15.27 | 18.8 | 27.75 | 20.40 | **40.53** |
| **Oranges** | 3.17 | 10.89 | 6.62 | 13.93 | 17.63 | 25.47 | 15.86 | **49.67** |
| Fresh | 1.45 | 1.9 | 1.55 | 1.34 | 1.16 | 2.28 | 4.53 | **30.14** |
| Processed | 3.24 | 11.84 | 10.66 | 19.93 | 19.3 | 26.8 | 32.21 | **66.39** |
| **Grapes** | 2.52 | 3.36 | 2.19 | 2.82 | 3.2 | 4.22 | 4.34 | **12.58** |
| **Other Juicy Fruits** | 0.82 | 1.16 | 1.67 | 1.38 | 1.76 | 2.83 | - | **-** |
| **Durian** | 0.4 | 1.1 | 4.06 | 10.07 | 4.04 | 11.73 | 7.53 | **114.46** |
| **Tamarin** | 0.08 | 1.09 | 0.13 | 0.04 | 0.52 | 0.47 | 0.34 | **377.99** |
| **Other Fruits** | 5.46 | 15 | 9.17 | 18.53 | 20.31 | 26.82 | 34.58 | **51.42** |
| Fresh | 4.78 | 13.85 | 8.21 | 16.6 | 18.17 | 23.84 | 26.14 | **50.26** |
| Processed | 0.68 | 1.15 | 0.96 | 1.93 | 2.14 | 2.97 | 8.44 | **64.58** |
| **Total Fruits** | **61.35** | **145.06** | **147.1** | **220.25** | **195.01** | **224.59** | **232.14** | **32.44** |

**Source:** BPS, compiled by Directorate of International Marketing, Ministry of Agriculture

**Table 7. Trade Balances of Fruits During 1999 - 2005**

| Ex - Imp | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|---|
| **Export** | | | | | | | |
| **(000 Tons)** | 264.95 | 187.34 | 188.04 | 225.37 | 189.65 | 210.18 | 270.66 |
| **Million US$** | 132.97 | 94.70 | 100.63 | 138.37 | 131.50 | 122.84 | 148.30 |
| **Import** | | | | | | | |
| **(000 Tons)** | 110,41 | 246,62 | 250,62 | 274,78 | 228,65 | 393,35 | 410,49 |
| **Million US$** | 61,35 | 145,06 | 147,1 | 220,25 | 195,01 | 224,59 | 232 |
| **Balances** | | | | | | | |
| **(000 Tons)** | **154,54** | **-59,28** | **-62,58** | **-49,41** | **-39** | **-183,17** | **-139,83** |
| **Million US$** | **71,62** | **-50,36** | **-46,47** | **-81,88** | **-63,51** | **-101,75** | **-83,84** |

Source: BPS

# III. STATUS AND PROBLEMS HAMPERING FRUITS EXPORT

Our main problem is mismanagement of our resources. Many projects funded by government fail to reach objectives. Facts show that most part of the project budget is allocated to generate additional income for government employee. Limited budget if used wisely will certainly bring good result. Therefore, the condition of fisical infrastructure for farming (inputs and irrigation), marketing facilities and institutions, and the availability of information is not in proper manner.

Small land holding per household is another foremost problem. Income from farming is not enough for source of living. Most of them are actually "part time" farmers. Income from farming contributes only less than 30% of the total house-hold income. Small-scale farmers (land < 0.5 ha per house hold) have limited capital and low formal education. Small land size in many cases is not suitable for capital intensive system.

All of the above problems resulted in low quality of fruits products, uncontinuous supply or unpredictable outputs, which make difficult to establish long term contracts with buyers. Lack of public investment in facilitating the farmers such as transport facilities, storage, and market information made this business unattractive. Long bureaucracy, imposing of export tariff and corrupted system causes high economic cost for export. With such situation only few businessmen participate in export businesses. Our export performances, not only for fruits but also for all agricultural products will grow faster only if those hampering factors are eliminated, our comparative advantages could be turned in to competitive advantages and Indonesia has the capacity to produce the competitive fruits and other agricultural products.

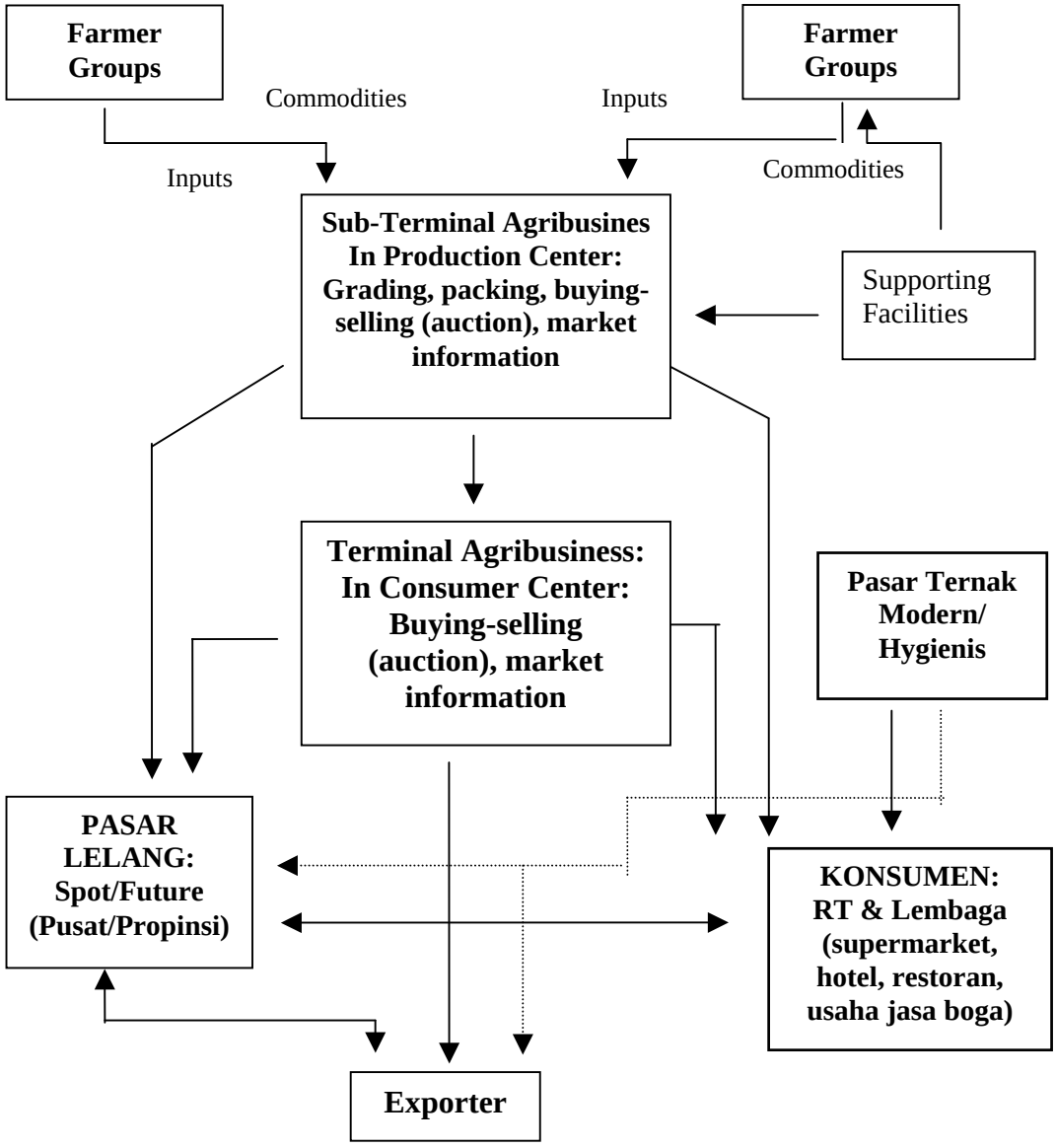
# IV. SUB-TERMINAL AND TERMINAL AGRIBUSINESS FOR MARKETING OF AGRICULTURE COMMODITIES

Government's effort to push export of fruits and also vegetables has been intensified by expanding area of development into a large area called *kawasan*. The kawasan is developed through networking of several provinces. In Sumatra, a kawasan for vegetables (Kawasan Agribusiness Sayuran = KAS), is developed through net working of 4 provinces (North Sumatra, West Sumatra, Riau and South Sumatra) to push export of vegetables to Singapore. Traditionally, North Sumatra is the main supplier of vegetables to Singapore because its location closes to Singapore. North Sumatra exports vegetables such as cabbage, lettuce, chesin, spinach to Singapore. Vegetable Kawasan are also developed in West Java, including Sukabumi and Cianjur; and in Central Java surrounding Wonosobo districts. There are 13 vegetable Kawasan are now being developed in Indonesia. The main purpose for vegetable Kawasan development is to fulfill the domestic demand and to gain market for export. Similarly, fruit Kawasan is also developed throughout Indonesia. There are 17 Kawasan for oranges; 13 Kawasan for Mangoes, 9 Kawasan for Rambutan; 4 kawasan for pineapple; and 6 Kawasan for banana. All of these Kawasan are developed through joint-cooperation between central and provincial government.

In each Kawasan, crop production is increased through increasing productivity and quality of crops in achieving competitive products. For this purposes, budget for

research and development will be increased. In addition, farmers will be organized in group for technological transfer / diffusion. They will be also facilitated with credit subsidy. In some places, infrastructures for market facilities such as terminal and sub-terminal agribusiness have been built by the government. Due to budget constraint, the past priority have been given to crops which have great potential for export such as potatoes, cabbage, red chilly, rambutan, and mangospin. While orange, mango, banana area mainly developed for domestic market. However, in the coming future, the priority would also be given to fruits which are potential become export products of Indonesia. The government aims to increase fruits and vegetables yield at the rate of 5 – 10% per annum (Program Pembangunan Pertanian 2001-2004).

On marketing sub system, the goverment are now giving effort to establish and empower the Terminal and Sub Terminal Agribusiness both for domestic and international marketing purposes. Terminal agribusiness will be developed in central consumers, while sub terminal will be established in farmers areas (centra production). It is expected that farmers will sell their products directly to the sub terminal agribusiness, and subsequently, the sub terminal agribusiness will sell the products directly either to Terminal Agribusiness or other markets such as traditional, super- and hyper market. This way, we expect the farmers to have better bargaining power, thus increase their incomes. Terminal agribusiness is then expected to sell the products not only in domestic markets, but also export the products. The flow of the products from farmers (producers) to the market (consumer) levels and the relation among marketing falities and institutions is given in Diagram 1.




## V. Past and Current Strategy

Government investment in agriculture development decreased since rice self sufficiency achieved in 1984. Government decided to invest in a high-tech industry such as aircraft. This "jumping" strategy, i.e. from agrarian country to high-tech industrialized country was a failure. The strategy exhausted our resources and foreign exchanges. It causes Indonesia as one of the three most indebted countries in the world. Agricultural sector has been neglected lead to substantial decreased in export performances.

Furthermore, during the last 30 years, the government program was biased to rice to achieve self sufficiency as discussed above. The consequences of that policy are that

other commodities such as fruits and vegetables have been neglected. The government contribution to the success of export during that period is minor. It is mainly attributed to the role of private sectors.

Strategy for export of horticulture including fruit products is first focused on fulfilling the needs of the domestic market. While fulfilling domestic market, strategies to promote international market have to be also prepared. Efforts to improve the quality of products and the efficiency of production, and also export promotion are continually carried out not only by the government but also private sectors.

## REFERENCES

1. Agricultural Statistics, 2004. Ministry of Agriculture, Republic of Indonesia
2. Agriculture Census, 2003. Indonesian Central Bureau for Statistics.

**Annex 1. Fruits Consumption in Indonesia (kg/capita)**

| Commodity | Year | | | | | | Avg Growth (%) |
|---|---|---|---|---|---|---|---|
| | 1987 | 1990 | 1993 | 1996 | 1999 | 2003 | |
| Oranges | 0.73 | 0.88 | 0.94 | 1.30 | 1.20 | 2.44 | 32.26 |
| Mangoes | 0.99 | 0.42 | 0.52 | 2.13 | 2.60 | 3.12 | 257.61 |
| Apple | 0.10 | 0.10 | 0.21 | 0.68 | 0.16 | 0.52 | 96.47 |
| Avocado | 0.16 | 0.26 | 0.16 | 0.21 | 0.26 | 0.21 | 11.97 |
| Rambutan | 2.96 | 4.78 | 3.48 | 2.44 | 1.98 | 5.72 | 34.89 |
| Longam | 1.14 | 1.14 | 0.16 | 0.16 | 0.05 | 0.73 | 241.06 |
| Durian | 1.46 | 1.25 | 0.52 | 0.52 | 0.16 | 0.73 | 42.85 |
| Salak | 0.31 | 0.42 | 0.62 | 1.20 | 0.73 | 1.04 | 35.99 |
| Pineapples | 0.99 | 1.09 | 1.04 | 0.94 | 0.68 | 1.56 | 19.53 |
| Banana | 12.95 | 13.83 | 12.58 | 9.05 | 8.27 | 7.96 | (8.53) |
| Papaya | 2.76 | 3.12 | 3.02 | 2.86 | 3.12 | 2.44 | (1.63) |
| Guava | 0.57 | 0.62 | 0.62 | 0.31 | 0.26 | 0.21 | (15.32) |
| Sawo | 0.16 | 0.16 | 0.16 | 0.10 | 0.05 | 0.10 | 2.50 |
| Star fruits | 0.10 | 0.10 | 0.10 | 0.10 | 0.05 | 0.05 | (10.00) |
| Kedondong | 0.21 | 0.31 | 0.31 | 0.16 | 0.16 | 0.05 | (13.90) |
| Melon | 0.10 | 0.31 | 0.47 | 0.78 | 0.47 | 1.56 | 103.95 |
| Jack-fruits | 1.04 | 0.99 | 0.88 | 0.99 | 0.42 | 0.68 | 0.18 |
| Tomat fruits | 0.16 | 0.16 | 0.21 | 0.16 | 0.16 | 0.16 | 1.49 |
| Others | - | - | - | 0.42 | 0.21 | 0.42 | - |
| **Total** | **26.89** | **29.94** | **26.00** | **24.51** | **18.65** | **29.69** | **5.55** |

**Source: BPS (Central Bureau for Statistics)**

**Annex 2. Total Fruits Consumption in Indonesia (Million Tons)**

| Commodity | Years | | | | | |
|---|---|---|---|---|---|---|
| | 1987 | 1990 | 1993 | 1996 | 1999 | 2003 |
| Oranges | 0,12 | 0,16 | 0,18 | 0,25 | 0,24 | 0,53 |
| Mangoes | 0,17 | 0,07 | 0,10 | 0,42 | 0,05 | 0,67 |
| Apples | 0,02 | 0,02 | 0,04 | 0,13 | 0,03 | 0,11 |
| Rambutan | 0,50 | 0,85 | 0,65 | 0,48 | 0,40 | 1,23 |
| Durian | 0,25 | 0,22 | 0,10 | 0,10 | 0,03 | 0,16 |
| Salak | 0,05 | 0,07 | 0,12 | 0,23 | 0,15 | 0,22 |
| Pineapples | 0,17 | 0,19 | 0,19 | 0,18 | 0,14 | 0,34 |
| Bananas | 2,21 | 2,47 | 2,35 | 1,76 | 1,68 | 1,71 |
| Melon | 0,02 | 0,06 | 0,09 | 0,15 | 0,10 | 0,34 |
| **Total Fruits** | **4,58** | **5,34** | **4,85** | **4,78** | **3,79** | **6,39** |

Source: BPS (Central Bureau for Statistics)