

## **Review on Timber Industry: Under Scheme of EPA-Indonesia and Japan**

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Prior to 'economic crisis' in 1998 for timber industry, especially plywood sector was capable of contributing significant annual foreign exchange earnings. Its production reached 8,574 million m<sup>3</sup> in 1996, which its values US\$ 4 billion and absorbed almost 2.5 million employees. Japan as a leading industrial country is one of the largest plywood import from Indonesia. Therefore, by implementation of EPA scheme (Japan and Indonesia) on July 1, 2008, timber industry, especially plywood sector must be maintained as one of leading commodities to be exported in Japan market.

This paper attempts to discuss some key of strategies of that have been used for the development of plywood industry in the 1970s-1990s. For instance, how important role of Soeharto government to launch her policy on credit banking incentives and integrating wood processing into the plywood industry base. On the other hand, plywood holders cooperated with APKINDO (Indonesian Panel Wood Association) and MPI (Indonesian Timber Communities) that eventually supported by government for their consolidation and intensify access to foreign market. These policies apparently succeeded in building the plywood industry.

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Received, 3 October 2009

Accepted, 16 November 2009

### Introduction

The EPA (*Economic Partnership Agreement*) signed in Jakarta by both leaders *Susilo Bambang Yudoyono* (Indonesian President) and Shinzo Abe (Prime Minister of Japan) on August 20, 2007 showed 'remarkable' relationship between two countries. It happened, because both countries Indonesia and Japan as well are commemorating 50 years of diplomatic relation this year, 1958-2008 (*Kompas*, June 30, 2008). The essence of the agreement more closely related on economic matters between the two countries, through trade *liberalization and investment* in order to achieve 'social welfare' in Asian region. Particularly, the ultimate goal of the agreement encourages 'economic integration' in East Asia in the near future.

The real meaning of EPA subsequently becomes direct benefit of trade, namely to lift non-tariff barrier that totally reach about 92 percent. Free tariff officially released from July 1, 2008 for certain materials such as *mineral, agricultural, forestry and fishery products*, which Indonesia exports to Japan. Indonesian Trade Minister, Mari Elka Pangestu in Jakarta said on June 26, that fiscal cost entering about 80 per cent tariff post Japan for Indonesian products to become zero since July 1.

In contrast, on Indonesian side, that fiscal cost for 58 per cent from tariff post to become zero for import products from Japan. And the rest 35 per cent from tariff post others gradually reduce in 3-10 years until zero per cent. Hopefully, from EPA lesson both trade relations between Japan and Indonesia subsequently increase in the future. Certainly, the impact from EPA implementation not just totally increases the trade volume, but also encourages *strategic partnership* among companies both countries and more variety export Indonesian products to Japan. Japan appears as the main target of Indonesian products export. It was listed that Japan-Indonesia trade amounted to US\$ 24.96 billion in 2005 (20-25 *per cent* from total value of Indonesia export) and rapidly increased to become US\$ 30 billion in 2007. Indonesia's exports to Japan totaled US\$ 18.05 billion and imports from Japan stood at US\$ 6.91 billion.<sup>1</sup> As registered that bilateral trade between Japan and ASEAN totaled about US\$ 149.1 billion (Y 17.15 trillion) in 2005.<sup>2</sup> Indonesia contributed shares about 16.74% from total amount of ten ASEAN countries. Among of this export to Japan, is forestry industries (*plywood, sawnwood, pulp and paper*), that contributed almost US\$ 2.5 billion-3.5 billion (13.85%) of US\$ 18.05 billion foreign revenue

obtain from Japan in 2005.

Prior to the crisis of 1998 the 'forest industry' sector was capable of contributing significant annual foreign revenue. The national wood panel industry (*raw plywood, paper, particle board, blockboard, Floor Base, etc.*) alone contributed US\$ 3.5 billion per annum or equivalent 63.15% of the total revenue received from the whole Indonesian forest industry sector, it represented 9.29% of total national foreign revenue. During the five years period prior to the crisis, the foreign revenues contributed by the national wood panel industry reached a figure of US\$ 20.42 billion. Forestry industry, especially plywood and pulp and paper replaced the second largest national income after the oil and gas sectors. Nevertheless, during the five years period after the 1997 crisis the figure was only US\$ 11.51 billion resulting a decrease of 43.66 %.<sup>3</sup> In this case, such of gloomy appearance subsequently has had a significant negative affect on the role and ability of the national wood panel industry to provide business growth, employment chance and other positive multiplier affects, which is one of the prominent parts for socio-economic growth for Indonesia as a nation.

According to Yasuo HAYASHI, Chairman and COE Jetro by signing of EPA,

Japan has fully commitment for improvement cooperation on Indonesian product commodities by keeping quality standard. It consequences that Indonesian product commodities has widely access in Japan market. As known that in 'globalization' era appears on competitive commodities among nations. Although Indonesia and Japan fully aware-have close economic and political relationship since a long time (*Kompas*, August 20, 2007). On the other hand, Makoto OKITSU, Co-Chairman of Japan-Indonesia Economic Committee Nippon Kaidanren said, that Indonesia is necessary to focus 'strategic development' on national industries in order to enhance 'economic growth' and how energy and natural resources inherently managed to support the growth. By focusing on 'national industries', Japanese companies could easily cooperate with Indonesian partners' (*Kompas*, August 21, 2007). For Indonesia EPA with Japan is the first, but for Japan her self, Indonesia was eight ranked, who really desired to sign EPA scheme. In contrast, Derajad H. Wibowo, a member of Indonesian parliament and Arianto Patunru, a researcher from Economic and Management Research Center, Indonesia University-worried about the EPA scheme, because of three rationales. Firstly, the domestic Indonesian economic condition

is not well prepared for global and regional competition. The condition related to government and private sectors economic policy since 2000s do not emphasize priority on 'industries strategic' to implement of economic sustainability for providing energy, human resources development, good governance, accountability, transparency, marketing strategy for medium and long term plan. Secondly, the reform of bureaucratic in Indonesia considered to be late, especially for investment matters, which eventually cause on economic high cost because of permission fees, regulation, taxes, employees/workers affairs, etc. Thirdly, competent leadership and focusing to get things done should be realized-for investment implementation policy in the field.

Aforementioned above on the implementation of EPA and bureaucratic constraints in Indonesia, This paper attempts to discusses on timber industry, especially 'plywood sector' that could be included as one of strategic industry on forestry product that has been agreed to be developed under EPA scheme. The paper focusing on the significant role of Indonesia government and private sector's policy on *plywood industry* development in 1970s-1990s, strategy of its development, marketing program, and conglomeration program. Besides, how the response of Japan as

the largest wood import launched her strategy on wood trade, wood import's policy in 1990s, diversification of countries of origins, and conclusion.

### **Plywood Industries in (1970s)**

This was a different strategy for the New Order regime in its development steps. The first decade (1966-1976) of the Soeharto government was a period of rather ad hoc moves toward the establishment of political order and economic growth, which emphasized rehabilitation and stabilization programs. The second decade (1976-1986) under the Soeharto regime emphasized a more systematic integration of its political, ideological and economic goals for the growth of industrialization. From a political point of view, its character became more strident and authoritarian towards corporatism, in which the state apparatus either incorporated its critics or potential opponents from the middle-class who called for more transparency on economic policy, good governance, and higher appreciation for democratic values. Economically, the New Order was able to move closer to state-led industrialization (Robinson, 1986: 176-177). During the second period, Pelita II (1974-1979), the government focused on the processing of raw materials to a higher stage of

value-added (timber, rubber, oil and minerals) materials. Therefore, economic policies after 1974/1975 may partly be interpreted as a direct response to foreign economic dominance, involving the transfer of capital ownership from foreign to domestic bourgeois in those sectors in which domestic capital was most highly developed: in import-substitution manufacture of consumer goods and intermediate goods, in trade and distribution and the timber industry. New regulations governing the formation of joint ventures and assigning levels of exclusion and priority for foreign investment were the mechanisms for such a transfer.

The government launched two significant aspects for economic development: (1) economic incentives provided by the state and (2) state control over economic development in Indonesia. Firstly, in terms of economic policies, the state launched various economic incentives, such as export credit and foreign exchange and interest regulations. By these regulations, the state encouraged the process of industrialization in many sectors. For example, in the forestry sector, one of the programs was the

promotion of industrialization and Indonesiation<sup>2</sup>. Following growing public criticism, the state enforced stricter controls over timber processing. At the macro level, state-led industrialization was characterized by an effort at facilitating Indonesiasation (Samego, 1992: 195). As Hill commented, 'the big push for greater controls came after violent protests erupted in Jakarta on January 15, 1974, accompanying the visit of Japanese Prime Minister Kakuei Tanaka (Hill, 1988: 31). The demonstrations then became violent riots in which many Japanese cars, motorcycles and commercial buildings were burnt and the armed forces and many student leaders from various universities were arrested and eleven demonstrators were shot.

Among the political elite in Jakarta, there were many comments pro and contra the demonstrations. Those that were pro had concluded that the Soeharto regime was selling the country's resources for short-term gain and making the country a sweatshop for industrialized countries. Those that were against the demonstrations argued that economic development is intended to provide social

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<sup>2</sup> The term 'Indonesiation' is related to the economic ownership policy. It means reducing the number of foreign investor shares in companies and transferring some of their shares to domestic capitalists.

welfare for all people needs political stability. Those among these groups tended to be from the bureaucratic apparatus in official government offices. The lesson from the Malari demonstration<sup>3</sup> was that the government, on 22 January, just one week after the riots, drastically changed its economic policies, which supported Indonesian capitalists; all new investments were to be joint ventures; tax incentives were to be reduced, the list of industries closed to foreign investments was to be extended and the number of foreign personnel was to be restricted. Corresponding to these changes were new measures affecting domestic investors, principally that ‘pribumi’<sup>4</sup> firms were to be given preferential access to state bank loans (Jenkins, 1976: 48-49; Dhaniarto, 1996: 32-33; Cribb & Brown, 1995). This latter resolution was in accordance with requirements that 75% equity in all national companies be transferred to indigenous owners within ten years, preferably by selling shares through the stock exchange. These regulations emanated,

not from the technocrats themselves, but from the President (Robinson, 1986: 189). The government strategy stressed reducing Indonesia’s reliance on imports and building up domestic technological capacity, by paying more attention to the processing of raw materials obtained from within the country. Indeed, President Soeharto stated that the growth strategy of the Indonesian government for the 1970s and 1980s should be led by this sector (Koehler, 1972: 93). The government also launched employment initiatives by inviting investors to (1) expand their capital investment in rural areas and (2) the outer islands through lower taxes for outer islands cooperating with foreign firms in building infrastructures such as ports, harbors and highways.

It was hoped that these rural industries would absorb employment opportunities outside the agriculture sector and stimulate further development in Indonesia. Therefore, in 1975-1979, the emphasis of the industrialization policy was not merely economic production,

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<sup>3</sup> Malari demonstration: ‘Malari’ is an Indonesian term referring to the demonstration that occurred on 15 January 1974 in Jakarta.

<sup>4</sup> ‘Pribumi’: means indigenous Indonesian. Initially, under the Soeharto regime, the pribumi firms had very limited access to economic resources, such as those in the forestry, mining and fishery sectors.

but, and more importantly, to increase the value-added of natural resource-based products. A highly influential Foreign Ministry official queried at the time commented:

‘Why can’t we refine some of the oil here, instead of just exporting crude oil? Why not process wood products here, instead of having it done only in Japan? And we should insist that foreign investors replant after they have cut down trees. There is a real danger that foreign investment will become exploitation, the way it is being implemented now’ (Weinstein, 1978: 496; Samego, 1992: 197).

This statement was obviously aimed at foreign and domestic investors in the forestry industry to build wood processing, such as a plywood industry. This condition assisted the Indonesian government to receive additional value through transfer of technology, taxes, capital investment and rapidly increased employment among Indonesian people.

The state facilitated wood processing industries during this period also with the intention of protecting the country’s forests from over-logging. As Walhi (The Indonesian Environmental Forum) mentioned, deforestation during the 1970s was 300,000 hectares annually and rapidly increased to 600,000

hectares in the 1980s. As mentioned by a former Minister of Agriculture, Toyib Hadiwidjaja, timber exports were not the main focus of the state’s development policy in the forestry sector. In fact, the forestry sector policy tasked the state with the control of forest conservation by enforcing various regulations that led businessmen to following conservation programs. In reality, most regulations were not followed by the private sector because they had access to political elite and sometimes colluded with forestry bureaucrats, leading to a lack of hard sanctions on these businessmen. Even Emiel Salim, the Minister of Environment, observed “skilled people and socially prominent figures have actively taken part in illegal deforestation” (*Kompas*, 17 July 1978).

The results of these programs were insufficient to control deforestation activities. As Table 1 indicates, the reforestation program conducted by the Department of Agriculture applied to only a very small number of areas compared to those, which were deforested in many districts in Indonesia. This occurred because of mechanization of the industry and market-oriented cutting for the high demand of logs, causing deforestation to grow faster than reforestation.

**Table 1** Reforestation and greening programmes, 1975-1979

<b>Years</b>	<b>Reforestation (ha)</b>	<b>Greening (ha)</b>
1974/1975	45,600	149,800
1975/1976	83,900	70,600
1976/1977	125,400	304,300
1977/1978	204,100	632,700
1978/1979	265,100	689,300
1979/1980	301,300	680,100

Source: Directorate of land and forest rehabilitation, 1979; Series of the Bank Indonesia report 1980.

The main problems of reforestation and greening programs during the second five-year development plan (1974-1979) were the limitation of financial resources. As the head of the Research and Development Office of the Department of Forestry acknowledged, the state was unable to enforce consistent and equitable payment of the various levies. An important consideration was the cost of reforestation, since the replanting of trees was expensive. The cost of one reforestation project, for example, in Southeast Sulawesi, covering around 2,000 hectares was US\$ 1,767,000.<sup>5</sup> According to Soedjarwo, the Director General of Forestry in 1990,

the reforestation budget was Rp.1 billion or US\$ 2.4 million annually, but financial resources were inadequate to facilitate this program. On top of this, logging concession holders often ignored the Forestry Act and Forestry agreement.

Secondly, the state also attempted to increase its involvement in economic activities because the state received much revenue from the oil and gas and forestry sectors. For example, the government received 20.74% (the proportion of the government's annual budget provided by oil and gas revenues) in 1969/1970 to a high of 53.27% at the beginning of the oil boom in 1974/1975. Based on its political strength

<sup>5</sup> See, Hidayat, Herman. 2004. Dynamism of Forest Policy in Indonesia: Focusing on the Movement and Logic of Stakeholders under the Soeharto Regime and Reformation Era (Ph.D Dissertation). The University of Tokyo.

and economic resources, state-led industrialization during this Pelita II was directed to facilitate:

- a. processing industries, such as timber, minerals and basic industries such as steel, paper and cement;
- b. the emergence of domestic entrepreneurs by providing more opportunities for them and reducing the role of foreign investors in economic development;
- c. the development of infrastructure and the provision of credit and indirect investment (The Indonesian Hand book, 1978).

Because of this, the industrialization policy during the second Pelita was oriented towards promoting exports by concentrating on primary resource processing industries, particularly the plywood industry. The long-term objective of this strategy was to facilitate a high rate in output (Samego, 1992:199). As Kuyvenhoven and Jansen have argued, "in an export-led industrialization strategy, high rates of output growth are expected to be realized through sales

at the international market (Kuyverson and Jansen, 1990: 15).

#### **By Granting Credit facilities**

The government also concentrated on providing not only granting working capital to weaker economic groups and indigenous businessmen, but also providing credit for those involved in the production of export commodities<sup>6</sup>. The forestry sector utilized available funds for the intensification of economic development activities and provided assistance to timber exporters who faced financial difficulties as a result of government restrictions on logging exports. In this case, the state provided credit facilities (about 25% of working capital) to businessmen who were involved in priority projects. This was a positive strategy of the government enabling plywood businessmen to develop this industry due to the availability of 'soft' credit granted by the government<sup>7</sup>.

Another act by the government was to provide more opportunities to domestic timber producers by instructing foreign timber

<sup>6</sup> See Bank of Indonesia report, Financial Year 1973/1974, p. 19.

<sup>7</sup> Cited by Samego, Indria, interviewed with Koentjono, marketing Executive of Kayu Lapis Indonesia, 8 February 1991.

companies to practice ‘Indonesianisation’<sup>8</sup>. Otherwise, they were told, they would be banned from the logging industry in Indonesia. In fact, the state policy of promoting Indonesianisation in the wood-processing industries was not very successful for Pribumi, because indigenous Indonesian businessmen lacked capital, market knowledge and access to the political elite compared to Indonesian-Chinese businessmen. State officials trusted the Indonesian-Chinese because of their loyalty and their contributions to the ruling Golkar party. Therefore, as the state closed this sector to direct foreign capital investment, the role of the ethnic Chinese in encouraging industrialization, especially in the plywood industry, became more significant. Indonesian-Chinese businessmen profited significantly from the policy of Indonesianisation, such as Liem Sioe Liong,<sup>9</sup> Prayogo Pangestu, Bob Hasan, Burhan Uray (*Bong Sun On*), Lie Siong Thay and Yos Soetomo. However,

as long as domestic investors ran the plywood industry, most of the profits would remain in Indonesia.

President Soeharto and his closest associates played active roles in directing the development of the timber industry. As one interviewee noted, due to the political interest of the New Order in its early period of consolidation, the army used forest resources as its main source of finance. Therefore, many army generals played dominant roles in distributing forest concessions<sup>10</sup>. Accordingly, as Mackie has commented, due to the mutual interest of the state and Indonesian-Chinese businessmen, the latter have been able to run their businesses easily (Mackie, 1976: 3). Therefore, the exploitation of the forestry sector was related to the political and economic motives of state officials. For example, the creation of PT. ITCI (International Timber Corporation Indonesia) as a joint venture in 1971 between PT.Tri Usaha Bakti

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<sup>8</sup> Bob Hasan is the adopted son of General Gatot Soebroto, a senior army officer who helped the then Colonel Soeharto. Liem Sioe Liong (father of Anthony Salim) controls companies in many sectors from banking, the forestry sector, palm oil, the automotive and motorcycle assembling industry, Cibinong cement, wheat imports, and more. He was introduced to Soeharto in the 1950s, when Soeharto became head of the regional army in Semarang and became close friends with Soeharto when he came to power in 1966.

<sup>9</sup> Liem Sioe Liong is familiarly called Indonesian name ‘Soedono Salim’. He was born in 1916 Fuqing, China. He owned 225, the largest companies in Indonesia since 1980s (See Sato Yuri, Op Cit, pp. 122).

<sup>10</sup> Interview with Ibrahim Madylao (Former activist of Secretary General of Islamic Students Association in 1950s), on 15 March 2000.

(Army foundation) and George Pacific of the United States with an area of more than 600,000 ha in Kenanga, Balik Papan, East Kalimantan..

The joint Ministerial Decree on 1 May 1979, of the Ministers for Agriculture, Trade and Industry, the government attempted to strengthen previous regulations issued by the Director General of Forestry. The policy was that logs should be primarily allocated to those who had already obtained permission to develop a wood processing industry (Samego, 1992: 208-209). Moreover, export certificates were to be provided to loggers who processed some of their production domestically. Those who made an effort to export only logs were no longer free to determine prices. The Minister of Trade and Cooperatives Decree No. 371/Kp/V/I/1979 set the price of Meranti (*Shorea Bracteolata*) and export logs no more than Rp. 35.000 (equivalent US\$ 50) per cubic meters.<sup>11</sup>

Thirdly, in order to promote the domestic industry and reduce dependence on imported

goods, in 1975 the state introduced a regulation 'banning plywood imports. Although the market price of imported plywood was about 20% cheaper than domestic plywood, the government encouraged domestic capitalists to develop the plywood industry<sup>12</sup>. So, the state also guaranteed a secure supply of timber to the domestic market by, among other things, gradually restricting log exports until 1985. This policy was begun by increasing export taxes on the most marketable species and rare woods, such as Ebony trees, in particular (*FEER*, July 4, 1975: 43). For these species, export taxes were increased to about 20% or US\$ 30 per cubic meters, encouraging exporters to process timber rather than export it. Also, the government obliged businessmen to pay higher levies on exported wood. In this case, the royalties for the timber trade were increased threefold, and in January 1979 a scheme was established whereby US\$ 1 per cubic meters was collected as a compulsory saving levy<sup>13</sup>. As a result,

<sup>11</sup> Meranti wood, is one the most favorable trees for raw material of plywood industry. It grows very much in Sumatra and Kalimantan. See also, R.Coats, "Indonesian Timber", in *Pacific Research*, Vol. 2, No.4, 1971, p. 9.

<sup>12</sup> The statistic recorded that in the mid 1960s almost 95 per cent of Indonesian wood-panel commodities imported from abroad. There were 5 mills, two in Java and one in Sulawesi and two in North Sumatra. Their production was very small (see Oie Hong Lan, 1969, 53).

<sup>13</sup> See Paul Zach, "Indonesia's timber take root", in *Far Eastern Economic Review*, November 10, 1978, p. 57.

the government ban on the importation of plywood, the lack of competition from foreign companies in the plywood industry and credit incentives from the government, finally created a monopoly, which was then able to determine the price of plywood on the domestic market. The timber business association, on 12 February 1976, built an association familiarly called APKINDO (Asosiasi Panel Kayu Indonesia). This association aims to consolidate and strengthen domestic timber businesses and promote wood processing industries for export. Initially, this association did not work efficiently, however when Bob Hasan became head of Apkindo from 1983-1990, the association cooperated closely with the government to rapidly promote plywood industries.

### **The Rise of Plywood Industry**

The Indonesian plywood industry grew continuously and steadily. For example, plywood factories grew in number from 8 in 1975 to 21 by 1979 (Table 2), producing 151,333 m<sup>3</sup> in 1977 with an income of US\$ 3,282 million to 1,250,446 m<sup>3</sup> and US\$ 287,072 million by 1982 (an average increase of 9 times per annum), as seen in Table 3, 4, 5 (the development of plywood industry by production). Another important issue was the growing number of

logs exports, although in 1985 the government placed restrictions on this. The problem was the involvement of a significant portion of state apparatus and institutions, particularly senior military officers and civilian officials, who had an interest in production for export. For example, according to George Wayerhauser, there were 75 generals dependent on PT.ITCI, a joint venture between Wayerhauser and PT.Tri Usaha Bakti (army foundation) in exploring forest resources in Balikpapan.

What was the effect on the employment sector from the development of plywood industries in the outer islands? In this case, the demand for labor increased rapidly. Unfortunately, since industrialization required certain skills not fulfilled by local people, only relatively skilled migrant laborers could fulfill these employment opportunities. As Vargas has commented, there were 3,000 people from outside Kalimantan who worked in the ITCI Company in the mid 1970s, while there was only one local Dayak. As a consequence, the increasing number of Javanese in Kalimantan has provoked resentment among local laborers.

What was the impact on smaller businessmen? As has been mentioned, the politics of the state-led plywood industrialization supported the growth of already large Indonesian-

**Table 2** The development of the plywood industry, by number of factories 1975-1979

Years	Number of factory	Production capacity (m <sup>3</sup> )
1975	8	305,000
1976	14	405,000
1977	17	535,000
1978	19	799,000
1979	21	1,809,000

Source: APKINDO report, 1979.

**Table 3** The Development of the plywood industry by production, export volume and values, 1977-1982

Years	Volume (m <sup>3</sup> )	Income (US\$)	Average
1977	151,333	3,282,474	21.69
1978	68,130	13,330,256	195.66
1979	140,611	33,458,239	237.95
1980	282,711	60,278,365	213.22
1981	764,268	162,781,910	212.99
1982	1,250,446	287,073,096	229.58

Source: Apkindo (Indonesian Plywood Association), 2000; Tropis Magazine, September 2000.

Note: In 1977-1982 (Before Trade Order Commence). Ave, the abbreviation from “average” annually per m<sup>3</sup>.

**Table 4** The development of the plywood industry by production, export volume and values, 1983-1992

<b>Years</b>	<b>Volume (m<sup>3</sup>)</b>	<b>Values (US\$)</b>	<b>Average</b>
1983	2,023,332	483,229,012	238.83
1984	3,021,145	663,120,085	219.49
1985	3,240,197	651,242,711	200.99
1986	3,873,401	865,170,264	223.36
1987	5,951,369	1,892,489,182	317.99
1988	6,901,504	2,310,892,570	334.84
1989	8,051,210	2,709,094,299	336.48
1990	8,513,332	3,023,833,314	355.19
1991	8,969,993	3,165,125,206	352.86
1992	9,782,718	3,557,085,785	363.61

Source: Apkindo, 2000; Tropis Magazine, September, 2000.

Note: in 1983-1992 this period after Trade Order.

**Table 5** The development of plywood industry by production, export volume and values after IMF 1993-2000

<b>Years</b>	<b>Volume (m<sup>3</sup>)</b>	<b>Values (US\$)</b>	<b>Average</b>
1993	9,713,127	4,589,235,187	472.48
1994	8,917,797	4,035,727,836	452.67
1995	8,750,710	3,886,943,896.	444.19
1996	8,574,836	4,029,477,732	469.92
1997	8,353,906	3,887,962,855	465.41
1998	8,043,635	2,486,165,999	309.08
1999	7,767,979	2,704,740,868	348.19
2000	6,972,500	2,419,118,475	346.95

Source: See Apkindo Report. 2000; In 1993-2000 period (Post International Monetary Fund Trade Order).

Chinese businessmen (conglomerates). In fact, it created more problems for smaller businessmen (indigenous businesses), because they did not have much working capital, technology and market opportunities. So, as a result of timber logging occurring at ever-increasing distances from the area of wood processing, the transportation of logs became too expensive for small factories. Apparently, this problem was exacerbated by bad weather, particularly in the rainy season, and by deteriorating transport infrastructure (*Kompas*, 21 January 1975). In 1977, for instance, 70 concession holders lost all or part of their concessions for failing to utilize processing industries near the concession areas (*Far Eastern Economic Review*, December 2, 1977: 66). For example, a company that was controlled by the Soriano group of the Philippines Kayan River Timber Company left Indonesia after failing to obtain a US\$ 3 million loan for new equipment (Samego, 1992: 233).

To sum up, initially the state was the main actor in creating economic and industrialization policies. This was because the political stability and economic income from the improvement of income from the oil and gas sector rapidly increased in 1974/1975. Therefore, since capital formation was insufficient to develop the plywood industry Indonesian businessmen looked to the

government for capital assistance and conducive regulations to develop this sector. Then, mutual cooperation in developing the plywood industry in the 1980s between the government and the private sector produced positive results for the industrialization of wood-based processing. There were some that said that by providing more chances to domestic capitalists to develop the plywood industry, the government cultivated their political support. As a result, the policy of Indonesianisation improved the standing of the government, particularly the President, to businessmen and society at large.

### **The Plywood Industry in the 1980s and 1990s**

During Pelita IV 1979-1984 (the Forth Five-Year Development Plan) the government focused on secondary processing, plus the establishment of capital goods (engineering) industries. The Soeharto government concentrated on three strategic steps in the forestry sector. Firstly, the state began to focus on the plywood industry as an essential export substitution commodity; ranking second after oil and gas export revenues. It was noted in Table 3 that the plywood industry contributed foreign exchange earnings US\$ 60,278,365, with total exports of 282,711 m<sup>3</sup> in 1980, rapidly

increasing in 1984 to US\$ 663,120,085 and 3,021,145 cubic meters (Table 4). This was a necessary approach, as foreign exchange revenues from oil and gas started to decline in 1983, as oil prices decreased to US\$ 25 per barrel from US\$ 30 per barrel in 1980. Also, as the recession struck industrial countries, the demand for raw materials from developing countries, including Indonesia, dropped. Therefore, a program for promoting non-oil export commodities was significant. Based on Forestry Act (UUPK) no. 5/1967 and the 1968 Forestry Agreement discussed previously, both logging concession holders and other non-concession loggers were ordered to gradually establish a 'wood processing industry'. Secondly, in the last Five Years Development (Pelita III), the government promotion of the plywood industry contributed substantially to Indonesia's balance of payments and economic growth. Because of this strategy the contribution of the plywood industry to the manufacturing sector, as a proportion of GDP (Gross Domestic Product), rose from less than 9% in 1971 to more than 15% in 1980 (Robinson, 1986: 171-172). More than 60%-70% of development activities were funded through revenues, particularly from oil and gas, logging and plywood. Thirdly, the government consistently carried out appropriate

economic policies in the early 1980s to enforce the implementation of an export oriented industrialization strategy, especially in the wood-processing industry, such as the banning of logs for export in 1985. Initially, the World Bank and advanced countries - including Japan and the United States - opposed this decision, based primarily on free-market arguments. However, Indonesia ignored these pressures, concluding that it was essential to control the market and develop a timber processing industry. Three key reasons were given for this decision: first, to add value and diversify the economy away from a heavy emphasis on oil exports; second, to create employment opportunities; and third, to provide incentives for long-term forestry investments (Dauvergne, 1997: 78).

These policy initiatives were expected to foster wood-based manufacturing industries. Firstly, the state effort to eliminate the problem of lack of raw material supplies for manufacturing, especially timber. Secondly, in the production process, state business was directed to increase the efficiency of the plywood industry. Thirdly, the state made substantial efforts to assist the marketing of Indonesian plywood (interview with Apkindo officer, June 8, 2001). Therefore, state organizations for forest enterprises and plywood businesses were strengthened. Certainly

the role of the Indonesian Forestry Society (MPI: Masyarakat Perkayuan Indonesia) and the Indonesian Wood Panel Association (APKINDO) have played dominant roles in determining the development of the forestry industry in Indonesia. For example, the government cooperated with APKINDO concerning the potential lack of logs in the near future. As APKINDO's executive chairman in the early the 1980s, Karsudjono Sinduredjo said before the Indonesian Parliamentary Meeting, due to the existing process of deforestation, in the near future the Indonesian plywood manufactures would find difficulties in obtaining logs for their industry. If this trend were to continue, Indonesia would depend on logs from other countries (*Kompas*, 3 February 1983). Based on his views, the rapid rate of deforestation was generally caused by two major factors: (1) demand for logging had increased rapidly as Indonesian markets grew. Apart from foreign markets, demand for logs could not be avoided as domestic wood-processing industries had also been established; (2) logging holders were not interested in conserving forest resources. Rather, they paid more attention to generating profits. Consequently, it would be difficult to force them to adopt the reforestation programs they had

previously agreed to. On this issue, R. Ropetto that particularly since deforestation proceeded more rapidly than reforestation commented it; the development of the plywood industry in the long-term could be expected to be blocked by a shortage of wood resources. Unless the state's strict controls over forestry management were followed, the state-led plywood industrialization would result in, to borrow Repetto's words, "forests without trees" (Repetto, 1998). For example, Barito Pacific Company, the biggest group in the forestry industry, had only reforested about 1,500 ha since acquiring almost 600,000 ha in forest concessions 16 years ago (1967-1983), even though it had already logged an area of 60,000 ha (*The Jakarta Post*, 14 January 1985). On the other hand, as commented by the General Manager of Tanjung Raya Timber Group Company, reforestation would be better done through 'a third party' rather than the government or logging concession holders. His company was willing to pay a reforestation fee of US\$ 15 per m<sup>3</sup> to a professional third party. His company was willing to pay this fee, instead of US\$ 7, as long as they were not burdened with having to carry out reforestation themselves (Samego, 1992: 322). Unfortunately, due to weak management and control and also hard sanctions from the Forestry Agency at the provincial and district

levels to logging concession holders, these reforestation programs were not successful.

To overcome a reduction in log exports, the state introduced another decree, which aimed to phase out log exports and promote the development of the plywood industry as the core of the new wood processing industries, in a Joint Decree of four Director Generals: Forestry, Multifarious Industry, Domestic Trade and Foreign Trade. The government allowed loggers to export their products as long as this helped to develop integrated wood-processing industries. Apparently, through this regulation the government expected to see a reduction in log exports and the development of integrated wood-processing industries from May 1981 onward<sup>14</sup>. This policy stipulated that for a period of two years businessmen that had already invested in the plywood industry were permitted to export logs at a rate of 25% of their total production. New investors in plywood were able to export up to 50% of their total production. Those investors who were not able to develop their own processing plants were required to merge with companies that could do so. In other words, this

above policy was expected to serve the interests of both actors in the plywood industry, namely state and private sectors. The state hoped that the growth of the plywood industry would have a 'multiplier effect' on the economy, supporting domestic industry, assisting in job creation and increasing the production of value-added products. Producers were also to benefit from stable domestic supplies in terms of logs and prices as well increased export prices. Higher prices and stable cheaper inputs would assist businessmen in borrowing or in accumulating capital needed to maintain their business activities (Samego, 1992: 255).

Drawing from the above description, the development of the plywood industry in the 1980s did not run smoothly, reaching only 21 factories in 1979/1980 (Table 2). Therefore, state intervention in this sector was necessary for several reasons: (1) the emerging plywood industry was restricted by technical difficulties. Obstacles appeared in the form of inadequate marketing networks and a lack of capital and technology. In terms of a lack of capital, the state launched various incentives, including

<sup>14</sup> This regulation familiarly known Surat Keputusan Bersama Empat Dirjen (SKBED), was issued on 22 April 1981. The additional notes of the Director General of Forestry, 4 May 1981, stated that this regulation encouraged those who were not able to comply with the minimum conditions of developing wood processing industries (less than 250,000 m<sup>3</sup> of allowable cut forest) to merge with others.

low interest, export credit facilities, the provision of export credit guarantees and export insurance. Barito Pacific staff mentioned that initially Barito used almost all Japan machines, such as Hashimoto, Meinan, Kikugawa and Unoko. Then, Japanese instructors taught Indonesian workers how to operate the machines<sup>15</sup>.

### Competition with other players

As the newcomers, Indonesian businessmen encountered strong competition from established producers, like Japan, South Korea, Taiwan and Singapore. For example, in the 1980s Japan owned 450 plywood factories, South Korea, 60, Taiwan, 135 and Singapore, 46 (*Tropis*, September, 2000). They enjoyed many profits from the 'logging bonanza' in Southeast Asia, especially Indonesia, in the 1970s and 1980s. In contrast, Indonesia just owned 21 plywood factories in 1979. The Indonesian plywood industry required the capital and technology monopolized by those countries; (2) investment in the plywood industry was very costly. In the late 1970s the cost of building an average size plywood

factory was often over US\$5 million. A few years later, in the 1980s, this figure rose again. According to UNIDO, the investment costs in terms of machinery and equipment for plywood factories were US\$ 80 for every 480 per m<sup>3</sup> <sup>16</sup> In addition, taxes, duties and levies imposed on the timber firms led to high production costs (Samego, 1992: 266); (3) a lack of infrastructure, such as electricity, communications, water, roads and other transport infrastructure, also increased costs. Due to the state's limited capacity to provide these facilities, plywood manufactures were asked to develop their own infrastructure. Consequently, their production costs went up continually. Overhead costs also intensified through this period, as Indonesia still faced the problem of a lack of regular and reasonably priced shipping (Dick, H.W, 1990) and (4) the Forestry Basic Law (UUPK) in 1967 did not explicitly restrict concession owners from contracting their logging concession areas to other groups, for an unlimited period of time. Finally, concessions had not been allocated on merit. In this case, it was considered more a 'distribution of favors' (*pembagian rizqi*)

<sup>15</sup> Interview with Simon, marketing manager of Barito Pacific plywood industries, June 19, 2001, in Jakarta.

<sup>16</sup> The former figure is derived from the FEER (Far Eastern Economic Review), 2 December 1977, p. 66. For the latter, see UNIDO, Indonesia Industry Sector Study, 1983, p. 67.

than a profit-based distribution of resources. Consequently, those who had close relationships to the center of power obtained concessions at the expense of real entrepreneurs.

To overcome these technical problems in the plywood industry, the government made to facilitate such development, by encouraging the private sector's involvement in maintaining economic development. In other words, the state aimed to create a more open economic policy. Nevertheless, there was 'disagreement among the leadership concerning the extent to which the challenge could be met by increasing foreign and domestic economic openness'<sup>17</sup>. It was obvious that the state, under the leadership of President Soeharto during Pelita III, was eventually directed to provide more opportunities for the domestic private sector. While state-owned resources declined, economic participation by the private sector was encouraged to secure the political survival of the Soeharto regime through initiating the following development programs:

'Increased job opportunities, which means that labor intensive investment proposals will be favored; more import substitution to

increase self sufficiency; encouraging the manufacture of low cost consumer items and discouraging the production or import of luxury goods; strengthening the export base; encouraging industries which process raw material into finished or semi-finished goods; giving priority to goods producers for the agricultural sector, such as farm implements and fertilizers; promoting agro-based industries'<sup>18</sup>.

In terms of the import substitution industry (ISI) strategy in the preceding Five-year Development Plan (Pelita II), on entering the Third Five-year Development Plan (Pelita III), the state's industrialization policy emphasized export-oriented industry (EOI). This means that the state aimed to create a conducive climate for economic expansion. Particularly as the state's revenues from oil had begun to decline in 1983, an outward-looking economy was considered the best solution for maintaining economic growth and political stability. On the other hand, instead of exporting unprocessed raw materials, the Soeharto government declared that exporting finished products would be one of the high priorities of the Third Five-year Development Plan (Pelita III). This policy was a significant

<sup>17</sup> For further information see Bruce Glassburner and Mark Poffenberger, "Survey on Recent Developments", in BIES (Bulletin of Indonesian Economic Studies), Vol.19, No.3, 1983, p. 1.

<sup>18</sup> See: Economists intelligence Unit, Indonesia Annual Supplement, 1981, p. 5.

shift from of the previous period, when it had been a lower priority because expanding oil export earnings and a logging ‘bonanza’ had promised sufficient export revenues. Then, in the Third Five-year Development Plan (Pelita III), the government was forced to make up for falling oil revenues. It could not expect to do attain this from the logging sector. Instead, the state encouraged a shift towards manufacturing. The most significant efforts in developing the export sector were the government’s economic package on January 1982. This policy, which ultimately became known as the ‘export certificate’ (*sertifikat ekspor*), was designed to assist domestic businessmen in promoting exports activities. Therefore, in order to strengthen the position of national exporters, the government introduced a ‘counter purchase policy’ that indirectly forced foreign investors to buy the products needed for their projects, in Indonesia<sup>19</sup>. Both of these economic policies were expected to strengthen the competitive position of Indonesian producers in international markets<sup>20</sup>.

What was the marketing program of the plywood industry? The government and private sectors cooperated to facilitate marketing. Firstly, the state implemented several promotional strategies and reforms in the export-import sector. This step began with the revision of the 1979 export certificate system. Apart from increasing the number of commodities eligible for export certificates, a new policy introduced in January 1982 provided export incentives designed to provide low interest export credit facilities, export credit guarantees and export insurance. The government offered a simplification of export procedures. Foreign exchange regulations were also relaxed for holders of export certificates. In addition, the government reduced its harbor service fees at the primary export ports (Bank Indonesia, Fiscal Year 1981/1982: 63). On the other hand, to increase the volume of plywood exports, the government worked on both breaking market barriers and facilitating the entry of plywood exporters into a new market in various parts of the world. A major tool for overcoming

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<sup>19</sup> See Toshihiko Kinoshita, “Japanese Investment in Indonesia: Problem and Prospects”, BIES, Vol. 22, No.1, April 1986. He analyzed, that this policy has affected the joint-venture projects between Indonesia and Japan.

<sup>20</sup> For further discussion on the state’s macro economic policy during the first years of the Third Repelita, see Arndt, “Survey of Recent Developments”, BIES, Vol.19, No. 1, 1983.

market barriers was the counter purchase policy. This policy indirectly forced other countries to import plywood from Indonesia in exchange for Indonesia accepting their exports. Especially for those countries that had adopted protection measures toward imported plywood, like Japan, it was felt that this policy could influence indirect pressure on them to lift or reduce trade barriers.

Secondly, APKINDO as representative for the timber businessmen association launched its strategy to established 'Kompa' (Marketing Commission), Integrated Marketing among timber producers and Research and Development (R&D) to analyze fluctuations in prices and markets. And it followed by establishing a marketing branch, 'Napindo', in Japan and 'Fendy Wood' in Singapore for the Middle East and Southeast Asian country markets. These market strategies and the synergy between the government and private sector were fruitful in the middle of the 1980s. The positive indicators that indicate this are: (1) the growing number of plywood factories in many provinces, as demand for plywood products rapidly increased. and (2) the increased production capacity of plywood factories for export from 3.240.187 m<sup>3</sup> and obtained foreign exchange earnings US\$ 651,242 million in 1985 to 8,513.332 m<sup>3</sup> and received

US\$ 3,023 billion in 1990 (Table 4).

In 1983, the state-led industrialization resulted in over-production and 'price wars' among domestic manufacturers. APKINDO proposed that the government prohibited new investment in this sub-sector after 1983. As the head of APKINDO mentioned this year, the production of domestic plywood was 3.7 million m<sup>3</sup> - significantly greater than the target of 3.3 million m<sup>3</sup>. So, if the government opened this sub-sector to further investment, state-led plywood development could threaten the profitability of the industry. In order to maintain production at 9 million m<sup>3</sup>, according to APKINDO, the existing 60 operating factories, the 45 under construction, 32 awaiting permission and 30 applying for investment, were enough (Table 6) (*Kompas*, 24 Januari 1983; *Sinar Harapan*, 2 December 1982). However, this suggestion from APKINDO's chairman was difficult to be implemented in the field, because based on market demand for plywood products from consumer countries were rapidly increased, especially after the government ban on log exports in 1985.

### **The Rise of Conglomeration**

By introducing this policy the state hoped that the price structure of Indonesian timber products would be determined in a

seller's rather than a buyer's market.<sup>21</sup> The effort of Bob Hasan and his group in launching 'negotiations' between the government and international consumers was significant and effective at promoting plywood products on the international market at the end of the 1980s. From this perspective, the government conglomeration policy in 1988 was the best way to reduce production costs and had both positive and negative impacts. Because the number of forest areas declined, the existing number of logging concession holders also needed to be reduced. Therefore, the policy required them to merge from 528 individual concessions to 70 units of integrated wood-based industries.<sup>22</sup> However, in reality, the conglomeration policy assisted just 10-15 big businessmen in the plywood industry who had access to the ruling elite (Table 8). On the other hand, conglomeration (business groupings) had emerged and demonstrated their capacity to face competition on the international

market and, more importantly, to respond to government policies for increasing production and value-added products.<sup>23</sup> So, as seen in (Table 9) due to policy of conglomeration since the implementation of Pelita IV, the production of timber panel products had been emphasized over raw plywood. This means that the policy of conglomeration led to a diversification in the production of wood panel products. On the other side, however, since the government introduced this policy, only a few large plywood producers survived the competition, while smaller manufacturers were disadvantaged. And the ten largest groups dominated more than 59 per cent of plywood exports. Because of a lack of capital, technology and market openings and availability of resources, some companies closed down, or were sold to larger companies. For example, PT.Talibu Timber, Sangkurilang, Tunggal Group and Limbang were sold to Barito Pacific (Apkindo, 6 July 1990). Kalimantan

<sup>21</sup> For discussion on the role of buyers in determining the price of wood from Southeast Asian Forests, see: Paul Gigot and Others in "The fall of the Forests", FEER, November 30, 1979.

<sup>22</sup> See SKEPHI (one of NGOs on Environmental and Forest Advocacy, in Jakarta), "Menjual Warisan Kita: Komersialisasi Hutan Indonesia", Jakarta, 1990, p. 46.

<sup>23</sup> Based on Mackie, conglomeration refers to "economic groups", which recently have become the main actor in economic transformations in Regional Perspective", in Hal Hill and Terry Hull (eds.) Indonesia Assessment 1990, Political and Social Change Monograph 11, Department of Political and Social Change, Research School of Pacific Studies, ANU, Canberra, 1990, p. 108.

**Table 6** The development of the Indonesian plywood industry 1980-1984 (m<sup>3</sup>)

Years	Factory	Capacity	Production	Utilization (%)
1980	29	1,949,000	1,011,000	51
1981	40	2,601,500	1,552,000	59
1982	61	3,292,400	2,140,000	65
1983	79	4,477,100	2,943,265	65
1984	95	5,27,600	3,820,000	72

Source: APKINDO, 1984. And also Nartanto, "Masalah dan Prospek Kayu Lapis Indonesia" EKI, Vol.34, No. 3, 1986, p. 336.

**Table 7** The development of the plywood industry by location (m<sup>3</sup>), 1988-1989

Location	Unit	D . I Unit	capacity	F.I capacity	Total unit	Total capacity
Aceh	2	190,000	-	-	2	190,000
N. Sumatra	4	364,700	-	-	4	364,000
W. Sumatra	-	-	1	109,100	1	109,100
Riau	8	790,800	1	140,000	9	930,000
S. Sumatra	4	338,600	-	-	4	338,600
Lampung	1	64,300	-	-	1	64,300
Jambi	5	419,200	2	65,000	7	484,200
W. Java	1	90,000	-	-	1	334,600
C. Java	1	334,600	-	-	1	90,000
E. Java	2	260,000	1	100,000	3	360,000
W. Kalimantan	14	391,000	-	-	14	1,391,000
S. Kalimantan	14	1,191,400	2	94,000	16	1,285,400
E. Kalimantan	24	690,700	3	154,800	27	1,845,500
C. Kalimantan	5	334,000	3	160,000	8	494,000
Sulawesi	2	32,000	1	53,500	3	85,500
Maluku	12	991,700	-	-	12	991,700
Irian Jaya	1	90,000	-	-	1	90,000
<b>Total</b>	<b>100</b>	<b>-</b>	<b>14</b>	<b>-</b>	<b>114</b>	<b>9,448,700</b>

APKINDO report, 1989; and Data Consult, 1989.

D I : Domestic Investment; F I : Foreign Investment.

**Table 8** The biggest plywood exporters by area (Million), investment and export values

<b>Company</b>	<b>Areas (million ha)</b>	<b>Investment (Rp million)</b>	<b>Values (US\$ 1,000)</b>
Barito Pacific	1,980	306,336	183,265
Alas Kusuma	1,775	155,877	74,543
Satya Djaja Raja	1,495	n.a	104,955
Djajanti	1,426	171,757	89,613
Berkat	1,086	n.a	n.a
Gunung Raya	1,052	n.a	n.a
Jati Maluku	929	n.a	n.a
Hutrindo	896	n.a	n.a
Benua Indah	892	n.a	n.a
Bumi Raya Utama	888	394,626	77,346
<b>Total</b>	<b>12,416</b>		

Source: PDBI (Indonesian Business Data Center), Forestry Indonesia, 1988, p.62-66.

Note: n.a: not available.

**Table 9** The development of the wood panel industry by product, volume and value to 1989

<b>Product</b>	<b>Volume (1,000 m<sup>3</sup>)</b>	<b>%</b>	<b>Values (US\$1, 000)</b>	<b>%</b>
Raw Plywood	3,478	78.1	1,223,123	80.0
Special Items	520	11.7	144,508	9.5
New Products	187	4.2	84,789	5.6
Block Board	233	5.3	60,571	4.0
Veneer	34	0.8	684	0.6
<b>Total</b>	<b>4,454</b>	<b>100.0</b>	<b>1,522,547</b>	<b>100.0</b>

Source: APKINDO report 1989.

Group, which was owned by Bob Hasan, also grew rapidly because it took over a number of domestic and foreign operators including George Pacific, in Balikpapan.<sup>24</sup>

### Japan Mainly Export Target

On the negative side, the conglomeration policy resulted in a growth-oriented strategy, lack of broad participation among medium businessmen, transparency or control, a lack of employment creation and deforestation. For example, in terms of the employment sector, it was registered in 1998, that the timber industry, especially plywood factories, absorbed 1.5-2 million workers. However, this employment capacity was rather small, in comparison to the amount of investment and production in the plywood sector.

The plywood industry has made a major contribution to non-oil and gas revenues since the early 1980s to the early 1990s. For example, foreign exchange earnings from export of plywood was US\$ 60,2 million in 1980 and

increased to US\$ 3 billion in 1990 (Tables 4&5). At the same time, the volume of Indonesian log exports decreased from 14,5 million m<sup>3</sup> in 1980 to 1,5 million m<sup>3</sup> in 1984. In dollar terms, log exports declined more than US\$1 billion from the 1980 pre-ban level to US\$ 0.4 billion in 1984<sup>25</sup>.

The negative impact of the log export ban in 1985 on foreign companies is indicated by the rapid decrease in factories in operation. For example, in Japan, where previously 450 factories operated, the number declined to 100, Taiwanese factories fell from 135 to 54, South Korea from 60 to 6 and Singapore from 46 to 11 (*Tropis*, September 2000). This was because Indonesian plywood exports became more competitive and so attracted concession owners to develop the domestic plywood industry further. More interestingly, Indonesian plywood exports were not only directed to traditional Asian markets, but also gradually moved to various new markets (Table 10), such as Latin America, the Middle East, Europe, North Africa,

<sup>24</sup> For a further list of acquisitions in the forestry sector, see Wibisono, Christianto, Forestry Indonesia, PDDBI, Jakarta, 1988, p. 216-217.

<sup>25</sup> See Lindsay, "The Indonesian Log Export Ban: An Estimation of Foregone Export Earnings", BIES, Vol.25, No. 2, 1989, p. 113.

the United States and Canada.<sup>26</sup> . This means that the marketing of plywood became another key factor for promoting an exponential increase in the industry. Due to the activities of both the state and APKINDO, the Indonesian plywood industry has been able to diversify its markets. Since the government restricted log exports, new markets have been developed. Even Japan, one of the leading plywood industries in Asia, has increased its import volumes and prices dramatically to become the largest consumer of Indonesian plywood since 1986 (600,000 m<sup>3</sup>) to 2 million m<sup>3</sup> in 1988 (Table 11). Based on data from ITTO (International Tropical Timber Organization) in Yokohama, in 1994 Japan consumed almost 8.2 million m<sup>3</sup> for housing and building constructions, which increased in 1997 to 9.5 million m<sup>3</sup>. The plywood factories in Japan could provide only 4.2 million m<sup>3</sup> and the rest of its stock must be imported from other countries, for example, Indonesia contributed 3,2 million m<sup>3</sup> for export to the Japanese market (Table 10) (*Tropis*, September, 2000).

As the largest consumer of hardwood tropical timber, Japan needed a continuous stable supply. A visit from Koichi Mataga as head of the Japanese Plywood Manufactures Association (JPMA) occurred in April 1999 in Jakarta. This meeting was held between APKINDO members and the JPMA delegation to discuss ‘Sustainable markets and finally agreed on two main points: (1) Japan agreed to maintain market stability in Japan and also to maintain sustainability in the utilization of hardwood from tropical timber in this region; (2) the producer countries, such as Indonesia and Malaysia, promised to continuously supply requested amounts of plywood to this market (*Tropis*, May, 1999). Furthermore, Matagi said that the Japanese market in 1999-2000 needed from 8-9 million m<sup>3</sup> of hardwood annually, and half must be imported. Indonesia one of the largest exporters for the Japanese market, supplying more than 50-60 per cent (Table 11).

This paper also reviews current market conditions and trends in demand for tropical

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<sup>26</sup> The positive impact of log ban in 1984/1985, Indonesia has been able to replace some Asian producers such as Japan, South Korea, and Taiwan. See, for example, Dedy AS, Bermand and Radu Malem, “Mengantisipasi Ancaman kayu Tropis” (Tropical Wood Threaten and Anticipation), Business News, No. 66, Tahun II/1991, p. 1-6.

**Table 10** Plywood exports by country of destination, 1984, 1986 and 1988 (1,000 Cubic meters)

<b>Country destination</b>	<b>1984</b>	<b>1986</b>	<b>1988</b>
USA/Canada	821.7	1,135.7	998.6
England/Ireland	109.6	263.9	299.1
European Countries	128.2	352.6	498.3
China/Hong Kong	669.0	852.6	1,327.2
Taiwan	110.0	302.4	290.3
Singapore	460.5	490.2	232.6
Middle East	417.2	340.0	527.6
Japan	145.3	600.9	2,032.3
Non-Japan New Markets	31.5	9.0	490.2
Other Countries	128.1	270.4	152.7
<b>Total</b>	<b>3,021.1</b>	<b>4,617.7</b>	<b>6,848.9</b>

Source: Data Consult 1988; APKIND report in 1988.

**Table 11** The utilization of plywood in Japan and imports from Indonesia (Million m<sup>3</sup>)

<b>Years</b>	<b>Utilization</b>	<b>Domestic product</b>	<b>Shortage</b>	<b>Import</b>
1994	8,190,000	4,864,000	4,46,000	3,229,000
1995	8,814,000	4,420,000	4,394,000	3,018,000
1996	9,960,000	4,646,000	5,324,000	3,260,000
1997	9,553,000	4,226,000	5,327,000	3,223,000
1998	7,179,000	3,304,000	3,872,000	3,327,000

Source: APKINDO report, 1994-1998; Tropes Magazine, May, 1999.

timber products. Japan was the dominant market for tropical timber, followed by Europe, then North America (Table 11). Over the last decade, South Korea and Taiwan have emerged as significant importers of tropical timber - by 1990 the level of imports by Korea and Taiwan were just below that of Europe. Imports by Korea and Taiwan of logs from Southeast Asia, especially Indonesia and Malaysia, were mainly destined for export-oriented timber processing industries, with Japan and North America as the major end consumers of these 'secondary processed' products.

However, Japan continues to be the world's largest importer and consumer of tropical timber, accounting for roughly 50 per cent of tropical timber imports by industrialized countries and more than 20 per cent of world trade in tropical timber. On the other hand, in recent years, 'secondary producers' of tropical timber products have increased shipments to the Japanese market. For example, Japanese imports of furniture made from tropical timber have more than doubled in the past decade, with nearly all this growth accounted for by imports from secondary producers.

### Conclusions

The essence of EPA is more closely related on 'economic issues' through trade and investment which subsequently achieve 'economic integration' in East Asia. Actually the *EPA scheme* which timber industry, especially *plywood* sector appears one of leading commodities mostly exported to Japan market and other countries must be well maintained. Japan as advanced industrial country is the largest of timber import (*round wood, sawn wood, plywood, wood-chips, etc.*) in the world. Therefore, Indonesia should maintain her plywood market in Japan in order to obtain more foreign exchange earnings. But, the fact, while economic crisis happened in 1998 and after (2007) that plywood export to Japan market was decreasing, and finally replaced by Malaysia and China as the largest exporter of plywood, because of lack timber as raw material and modern processing machines. To anticipate the backwardness of plywood market in Japan, plywood holders must cooperate with other *stakeholders* (APHI: Indonesian Concession Holders Association, MPI: Indonesian Timber Communities, Banking institute, government, local people, etc) to provide

*raw materials* (timbers), to modernize machine equipments, human resources development, marketing strategy, and credit incentives-in order to be sustainable of plywood products and market. These synergic cooperation policies must be implemented in the field in order 'comparative' advantageous of Indonesia plywood compared with other countries (Malaysia, China and Vietnam) appeared to be winner.

Indonesian plywood industry experiences appeared as the largest plywood production in the 1980s and 1990s, because two keys strategies had been launched. Firstly, the Soeharto administration more paid attention on launching its policy on integrating wood processing into plywood industry. Secondly, government issued conducive policies included provision of 'economic aid' for the private sectors in the form of credit, low interest and export facilities, diplomatic marketing with foreign countries, and cooperation with APKINDO (Indonesian Panel Wood Association) and MPI (Indonesian Timber Communities) to consolidate and intensify access to foreign markets. These policies considered success that eventually affected Indonesia into one of the largest plywood exporters in the 1990s.

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<sup>1</sup> *The Japan Times*, "Japan-ASEAN Trade," on December 8, 2006.

<sup>2</sup> The statement of 'foreign revenue' from wood panel industry during 5 years after economic crisis (1997) based on Chairman of the Indonesian Wood Panel Association (Mr. Martias). See Apkindo Directory 2003, in "Foreword."