

4. PRESENT CONDITIONS OF THE PRINCIPAL RIVER PORT IN KALIMANTAN

4.1 Regional Development Plans

4.1.1 General

(1) Kalimantan

1) Topography

Indonesia Kalimantan occupies about three fourths of Kalimantan Island. Many rivers flow from mountain areas and run into Karimantan Strait, Jawa Sea and Makassar Strait, formulating huge lowlands. Our target ports, Ports of Pontianak, Kumai, Sampit and Samarinda, are located near estuaries of Kapuas River, Kumai River, Sampit River and Mahakam River respectively.

2) Area and Population

Area and population of Kalimantan account for 547,891 km² and 11.4 million (1999) as shown in Table 4.1.1. Population density of the three provinces is very low comparing the state average.

Table 4.1.1 Area and Population in Kalimantan

Province	Area (km ²)	Population				
		1990 (1,000)	1995 (1,000)	1999 (1,000)	Annual Growth Rate 90/95 (%)	Density (pax/km ²)
West Kalimantan	146,807	3,229	3,636	3,943	2.24	26.9
Central Kalimantan	153,564	1,396	1,627	1,771	2.68	11.5
South Kalimantan	36,535	2,597	2,893	3,103	2.00	84.9
East Kalimantan	210,985	1,877	2,314	2,579	3.59	12.2
Kalimantan Total	547,891	9,099	10,470	11,396	2.53	20.8
Indonesia	1,937,179	179,379	194,755	206,517	1.58	106.6

Based on Population Censuses 1990&1995 and Projection at Intercensal Population Survey 1995

Source: Statistic Indonesia 1999, BPS

3) Transportation Network

Transportation in Kalimantan has not been well developed. Trans Kalimantan Highway has been proposed to connect main cities in Kalimantan is under construction. The routes from Sangkulirang in East Kalimantan to Pangkalanbun near Kumai in Central Kalimantan and from Pontianak to Singkawang in West Kalimantan have been connected whereas the route of Pangkalanbun - Pontianak and the route north of Sangkulirang are still under construction. Although other inland highways are proposed, inland and coast-to-inland road systems are very poor.

4) Industries

The Island is rich in forest resources although huge forest areas are preserved or protected. Moreover, the island has great deal of cultivable land only part of which has been developed. Also Kalimantan

is rich in mineral resources, especially in East Kalimantan, deposits of oil, gas and coal are so affluent that the economy of the province greatly depends on mining.

Under these conditions, oil and coal mining, wood processing and LNG production, agriculture, etc. have been developed as main industries in Kalimantan. Table 4.1.2 shows GDRP by industrial origin and province. This shows that main industries in West Kalimantan are agriculture and manufacturing. Similarly, it gives general understanding that any industries other than agriculture is not well developed in Central Kalimantan and that mining and manufacturing are leading industries in East Kalimantan.

**Table 4.1.2 Gross Regional Domestic Product at Current Market Price
by Industrial Origin (1998)**

Industrial Origin	(billion Rp.)			
	West Kalimantan	Central Kalimantan	East Kalimantan	INDONESIA
Agriculture	3,873	3,903	3,745	181,021
Estate Crops	1,069	NA	784	33,727
Forestry	1,003	NA	1,727	17,098
Mining and Quarrying	229	502	15,282	137,629
Crude Petroleum & Natural Gas	0	NA	10,090	83,633
Non Oil and Gas Mining	84	NA	4,740	44,303
Manufacturing	4,316	537	22,910	245,411
Crude Oil & Gas Manufacturing	0	NA	19,157	29,437
Non Oil & Gas Manufacturing	4,316	NA	3,753	215,974
Electricity, Gas & Water Supply	108	20	98	11,149
Construction	878	486	1,168	55,591
Trade, Hotel & Restaurant	3,291	1,578	3,520	167,117
Transportation & Communication	1,076	731	3,158	41,837
Finance, Dwelling & Business Service	749	167	911	70,007
Services	1,147	704	712	82,472
Total with Oil & Gas	15,666	8,610	51,505	1,002,333
Total without Oil & Gas	15,666	8,610	22,258	889,263

Source: Statistic Indonesia 1999 BPS

West Kalimantan in Figures 1999, BPS of West Kalimantan

Central Kalimantan in Figures 1999, BPS of Central Kalimantan

East Kalimantan in Figures 1999, BPS of East Kalimantan

Per Capita GRDP of each province is shown in Table 4.1.3. East Kalimantan has very high figure in both cases with and without oil and gas which accounts for about five times and two times the national average respectively. Contrarily, West and Central Kalimantan have almost the same level as the state average in case with oil/gas.

Table 4.1.3 Per Capita GRDP of Each Province

Island, Province	With Oil & Gas	Without Oil & Gas
West Kalimantan	4,086	4,086
Central Kalimantan	5,107	5,107
South Kalimantan	3,941	3,892
East Kalimantan	21,525	9,034
Kalimantan Total	8,121	5,303
Indonesia (27 Provinces)	4,435	3,968

Source: Statistic Indonesia 1999, BPS

(2) West Kalimantan

West Kalimantan, where Port of Pontianak is located, occupies 146,807 Km² and 3.9 million of population (1999), bordering on Sarawak, Malaysia and Central Kalimantan with mountains. The province has lowlands along the west coast and in the central area where Kapuas River originating the east border mountain area runs to the west and pours into Kalimantan Strait. The capital city is Pontianak with 485 thousand of population (1999).

General land use in West Kalimantan is shown in Figure 4.1.1.

(3) Central Kalimantan

Central Kalimantan has the second largest area and the smallest population in the Island with 153,567 km² and 1.8 million respectively, that is, the most thinly populated area. The province borders on West Kalimantan to the west, South Kalimantan to south-east and East Kalimantan to the east. Many rivers run in the low land which occupies almost south half of the territory from the north mountain areas to the south coast. Port Kumai sits near Kumai River estuary in the west end of the territory and Port of Sampit is located on the bank of Sampit River about 50 Km upstream from the estuary. The capital city is Palangkaraya, about 200 km east of Sampit, with 150 thousand of population (1999).

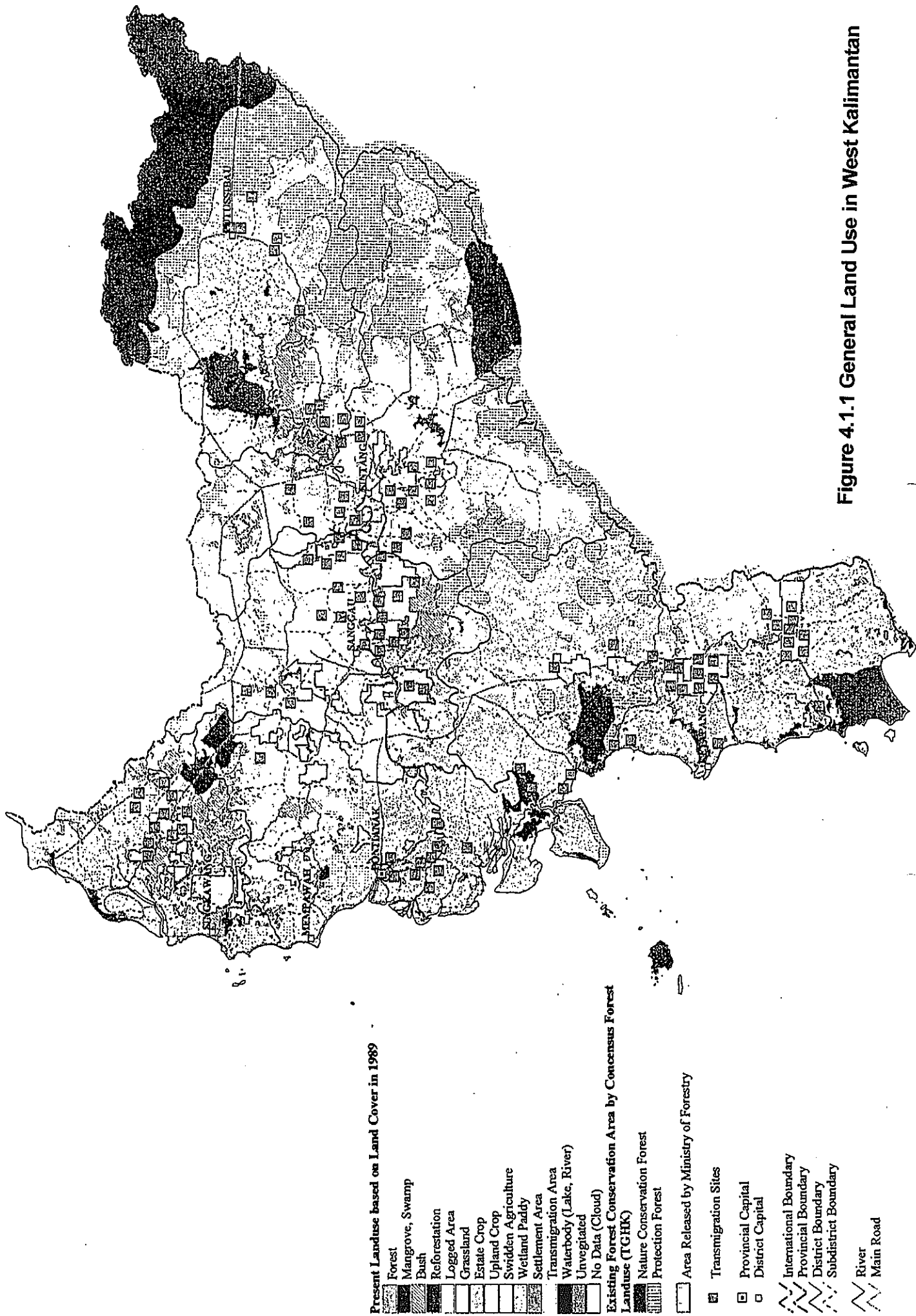
Despite no oil/gas production, per capita GRDP with oil/gas is ranked above the national average and in case without oil/gas, it is bigger than the national average by 28%.

Relatively vast production forest is remained in Central Kalimantan.

General land use in Central Kalimantan is shown in Figure 4.1.2.

(4) East Kalimantan

East Kalimantan occupies the largest area in the Kalimantan with 210,985 Km² and has about 2.6 million of population. Similar to Central Kalimantan, the province is thinly populated or has only one tenth of the state average population density. Almost all the area is mountainous except the south inland and the coastal areas. Port of Samarinda is located at Samarinda city, the capital with 407 thousand of population (1999), several tens of Km upstream the Mahakam River estuary where vast



Present Landuse based on Land Cover in 1989

- Forest
 - Mangrove, Swamp
 - Bush
 - Reforestation
 - Logged Area
 - Grassland
 - Estate Crop
 - Upland Crop
 - Swidden Agriculture
 - Wetland Paddy
 - Settlement Area
 - Transmigration Area
 - Waterbody (Lake, River)
 - Unvegetated
 - No Data (Cloud)
- Existing Forest Conservation Area by Concensus Forest Landuse (TGHK)
- Nature Conservation Forest
 - Protection Forest
- Area Released by Ministry of Forestry
- Transmigration Sites
 - Provincial Capital
 - District Capital
- International Boundary
- Provincial Boundary
- District Boundary
- Subdistrict Boundary
- River
- Main Road

Figure 4.1.1 General Land Use in West Kalimantan

delta is formulated.

East Kalimantan is rich in forest and mineral resources, especially in gas and coal although land area suitable for agriculture is not huge. These affluent natural resources place East Kalimantan's GRDP high rank among provinces.

General land use in East Kalimantan is shown in Figure 4.1.3.

4.1.2 Agricultural, Forestry and Fishery

(1) General

Except estate in West Kalimantan, agricultural development for both crops and estate has not progressed. Although difficulty in agricultural development in the province can be understood considering mountainous topography in East Kalimantan, the development level is very low as well as crop area development in Central Kalimantan.

Table 4.1.4 Agriculture Land Use in West, Central and East Kalimantan

Province	Agriculture Land Area			
	Land for crop		Estate	
	Area (ha)	Proportion to Total Area (%)	Area (ha)	Proportion to Total Area (%)
West Kalimantan	719,164	4.9	1,716,833	11.7
Central Kalimantan	369,920	2.4	733,177	4.8
East Kalimantan	248,924	1.2	469,809	2.2
Indonesia	11,608,194	6.0	15,016,014	7.8

Crop: Food Crops such as Padi, Maize and Cassava, Vegetables, Fruits etc.

Estate: Plantation of Oil Palm, Rubber etc.

Source: Statistic Indonesia 1999, BPS

Central Kalimantan and East Kalimantan have forest resource stock because the both provinces have vast production forest area accounting for 11.7% of the state total in Central and 14.1% in East respectively.

Table 4.1.5 Forestry Area in West, Central and East Kalimantan

Province	Forestry Forest Area		
	Protection (ha)	Park/Reserve (ha)	Production (ha)
Kalimantan Barat	2,047	1,340	1,506
Kalimantan Tengah	800	730	4,302
Kalimantan Timur	3,626	1,986	5,192
Indonesia	29,660	19,068	36,702

Based on agreed forest land use until March 1998

Source: Statistics Indonesia 1999, BPS

Present Landuse based on Land Cover in 1989

- Forest
- Mangrove, Swamp
- Bush
- Reforestation
- Logged Area
- Grassland
- Estate Crop
- Upland Crop
- Swidden Agriculture
- Wetland Paddy
- Settlement Area
- Transmigration Area
- Waterbody (Lake, River)
- Unvegetated
- No Data (Cloud)

Existing Forest Conservation Area by Concensus Forest Landuse (TGHK)

- Nature Conservation Forest
- Protection Forest

Area Released by Ministry of Forestry

- Transmigration Sites
- Provincial Capital
- District Capital
- International Boundary
- Provincial Boundary
- District Boundary
- Subdistrict Boundary

- River
- Main Road

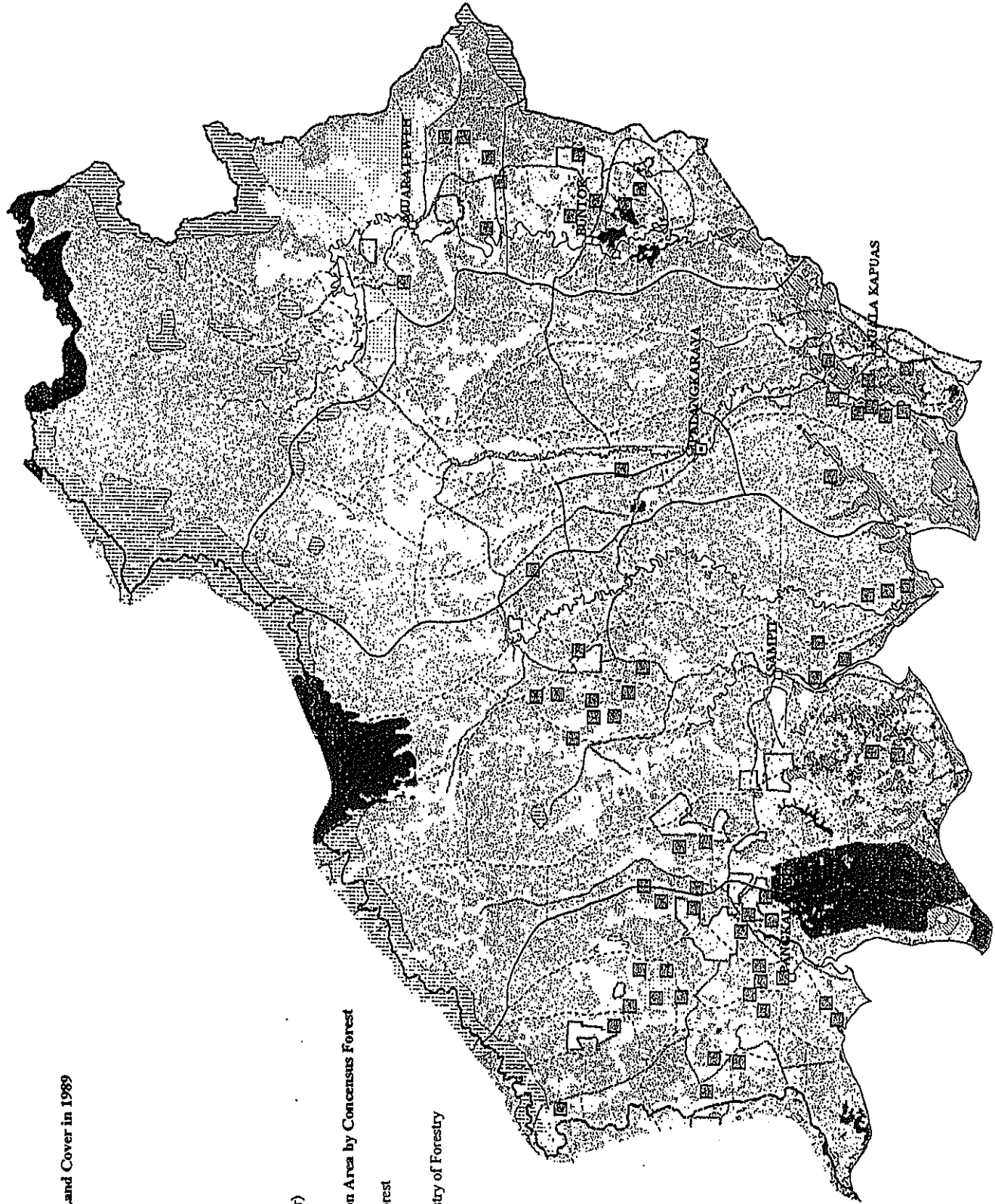


Figure 4.1.2 General Land Use in Central Kalimantan

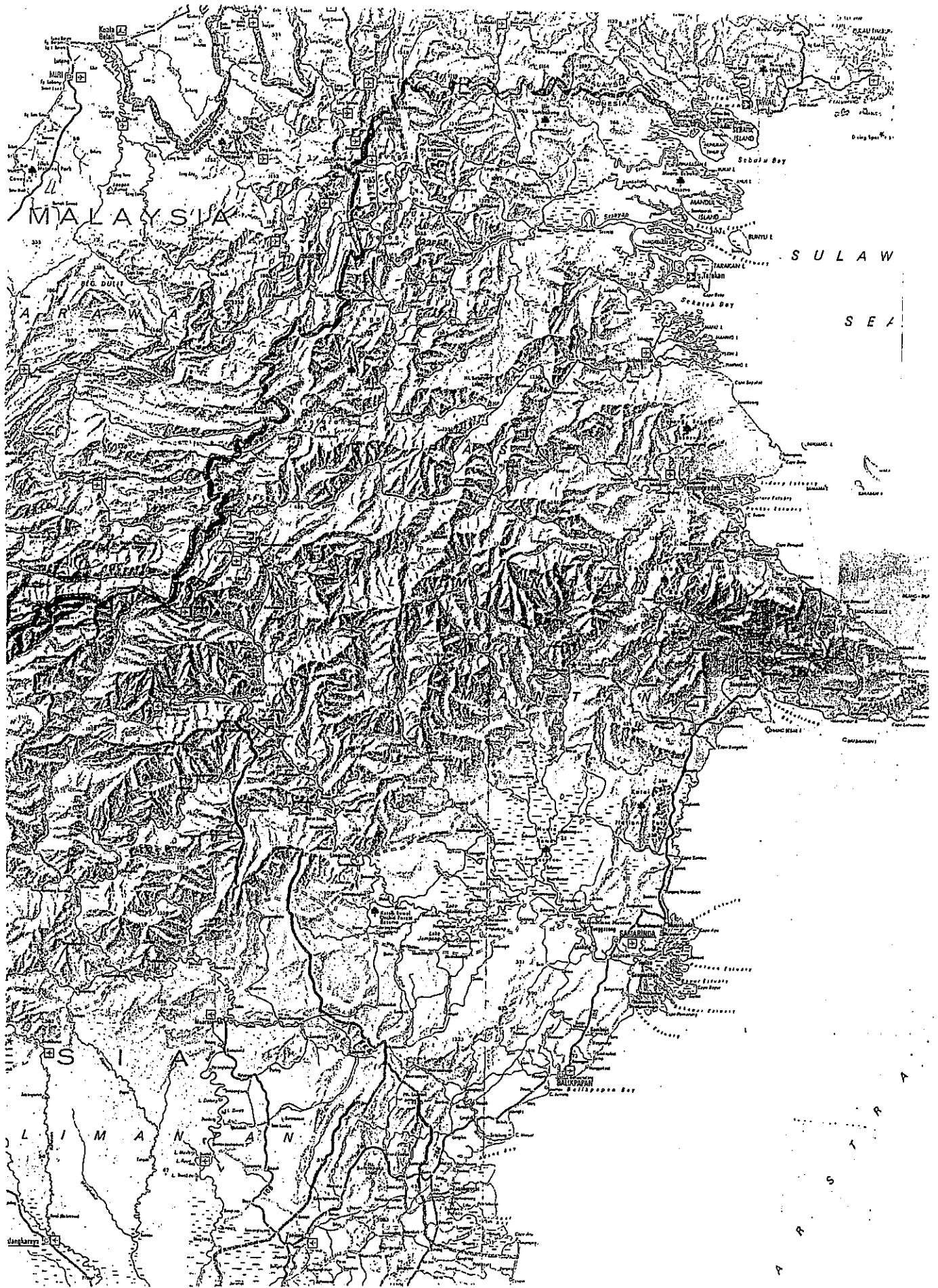


Figure 4.1.3 General Land Use in East Kalimantan

Fishery productions in the three provinces are shown in Table 4.1.6.

Table 4.1.6 Fishery Production in West, Central and East Kalimantan

Province	Fishery Production			
	Total (ton)	Marine (ton)	Inland Open (ton)	Inland Culture (ton)
Kalimantan Barat	83,493	69,518	10,969	3,006
Kalimantan Tengah	105,388	50,936	54,393	59
Kalimantan Timur	98,284	72,809	16,240	9,235
Indonesia	4,466,145	3,489,823	298,589	677,733

Source: Statistics Indonesia 1999, BPS

(2) Plantation

Production of plantation by kind of crops is shown in Table 4.1.7.

Table 4.1.7 Production of Agricultural Estates in West, Central and East Kalimantan

Crop	West Kalimantan (ton)	Central Kalimantan (ton)	East Kalimantan (ton)	Indonesia (ton)
Rubber	204,360	134,406	21,508	1,488,300
Coconut	50,727	42,165	29,595	2,717,600
Palm Oil	215,537	248,246	356,102	5,337,500
Coffee	3,287	582	4,478	401,100
Cocoa	1,801	116	11,343	344,400
Pepper	1,326	662	5,701	52,100
Year	1998	1999	1999	1999

Source: Statistics Indonesia 1999, BPS

West Kalimantan in Figures 1999, BPS of West Kalimantan

Central Kalimantan in Figures 1999, BPS of Central Kalimantan

East Kalimantan in Figures 1999, BPS of East Kalimantan

1) West Kalimantan

In West Kalimantan, plantation has been considerably developed, but production levels are still low except that of rubber.

2) Central Kalimantan

Agricultural development has not progressed much for plantation and crop field. Rubber production is relatively active. Central Kalimantan government has development plan of 1.7 million ha of palm oil plantation.

3) East Kalimantan

Similar to Central Kalimantan, agricultural development has not progressed much for plantation

and crop field. Palm oil production is relatively active.

(2) Forestry

Forestry products in the three provinces are shown in Table 4.1.8

Table 4.1.8 Wood Products in Riau, Jambi and South Sumatra

Wood Products	West Kalimantan (m3)	Central Kalimantan (m3)	East Kalimantan (m3)	Indonesia (m3)
Logs (Production)	1,004,000	2,764,246	5,534,000	19,027,000
Sawn Wood	NA	130,135	188,582	2,707,221
Plywood	NA	186,598	1,196,552	7,154,729
Veneer	NA	1,759	21,621	NA
Chips	NA	-	13,374	NA
Pulp	NA	-	-	NA
Blockboard	NA	302	91,329	NA
Moulding/Dowel	NA	84,709	59,979	NA
Year	98/99	99/00	99/00	98/99

NA: not available -: negligible

Source: Statistics Indonesia 1999, BPS

West Kalimantan in Figures 1999, BPS of West Kalimantan

Central Kalimantan in Figures 1999, BPS of Central Kalimantan

East Kalimantan in Figures 1999, BPS of East Kalimantan

1) West Kalimantan

Forestry production area in West Kalimantan is not huge comparing with Central and East Kalimantan. Log production in the province accounts for about 5% of the state total.

2) Central Kalimantan

Although Central Kalimantan produces about 15% of logs in Indonesia, production level of value-added products remains low because the down stream processing industries such as plywood have not been established.

3) East Kalimantan

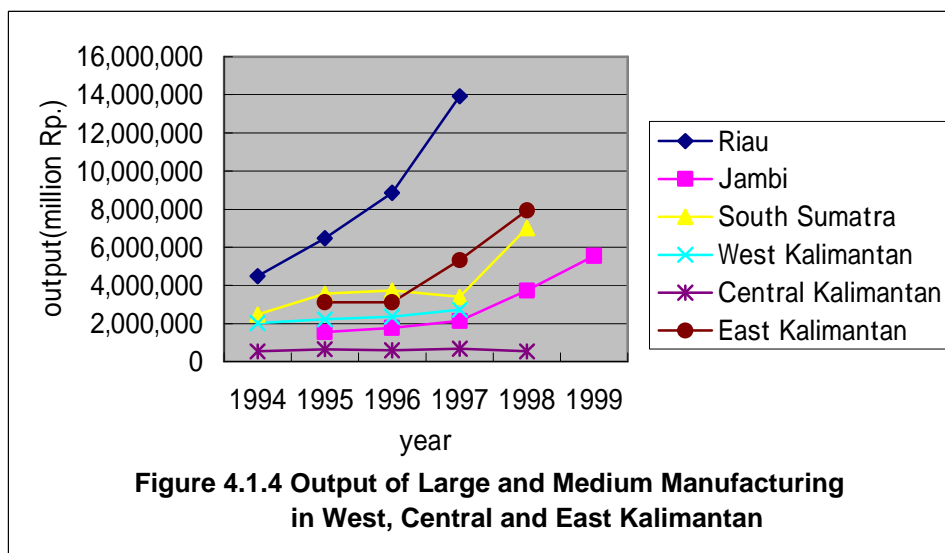
East Kalimantan produces about 30% of logs in Indonesia and about 17% of plywood. Also production levels of blockboard and moulding/dowel are relatively high. Thus, the province has established value-added industry in forestry sector to some extent.

4.1.3 Industrial Development

(1) General

Figure 4.1.4 shows output of large/medium manufacturing in the provinces where the target

ports are located. This shows that the output of East Kalimantan is the largest in the three Kalimantan provinces and that output of West Kalimantan increased after the recession whereas that of Central Kalimantan was sluggish.



Source: Statistics Indonesia 1999, BPS

West Kalimantan in Figures 1999, BPS of West Kalimantan

Central Kalimantan in Figures 1999, BPS of Central Kalimantan

East Kalimantan in Figures 1999, BPS of East Kalimantan

Main industries in Kalimantan are wood processing, CPO processing, coal mining and LNG production. Wood and CPO processing industries can be seen more or less in all provinces in Kalimantan. Coal mining and LNG production industry, however, have been established only in East Kalimantan.

Table 4.1.9 Mineral Production by Commodity in West, Central and East Kalimantan

Commodity	West Kalimantan	Central Kalimantan	East Kalimantan	Indonesia
Crude Oil (Barrel)	NA	NA	70,205 mmstb	516,411,000
Natural Gas (MSCF)	NA	NA	1,561,679,000	2,973,569,000
Coal (ton)	NA	NA	33,652,982	65,277,341
Lime Stone (ton)	NA	NA	120,725	NA
LNG (m3)	NA	NA	36,912,919	NA
Bauxite (ton)	NA	NA	NA	1,125,413
Year			1999	1999

Source: Statistics Indonesia 1999, BPS

East Kalimantan in Figures 1999, BPS of East Kalimantan

(2) Oil and Gas

1) West Kalimantan

In West Kalimantan, oil/gas is not in production.

2) Central Kalimantan

In Central, oil/gas is not in production.

3) East Kalimantan

Oil and gas mining greatly contribute to economy of East Kalimantan and supply materials for LNG production. Productions of oil and gas are 70,205 MMSTB and 1,561,679 MMSCF in 1999. Petroleum chemical industry is also active producing 74 million barrel per annum of petroleum products and 37 million M3 per annum of LNG in 1999.

(3) Mineral Mining other than Oil and Gas

Figure 4.1.5 illustrates coal deposits and mines in Kalimantan. This suggests the three provinces have a chance of development and/or expansion of coal mine.

1) West Kalimantan

Although mineral resource deposit of bauxite, coal, etc. is said to be rich, mining activity is low.

2) Central Kalimantan

Although 18 mining activities in Central Kalimantan are in the stages of general research, exploration and exploitation, production level is low.

3) East Kalimantan

Coal mining is also active producing 34 million tons in 1999 and the production increased 13.4% from the previous year.

(4) Other Industries

1) West Kalimantan

Wood sector is relatively active because of rich forestry resources.

2) Central Kalimantan

Central Kalimantan is in almost the same situation as West Kalimantan.

3) East Kalimantan

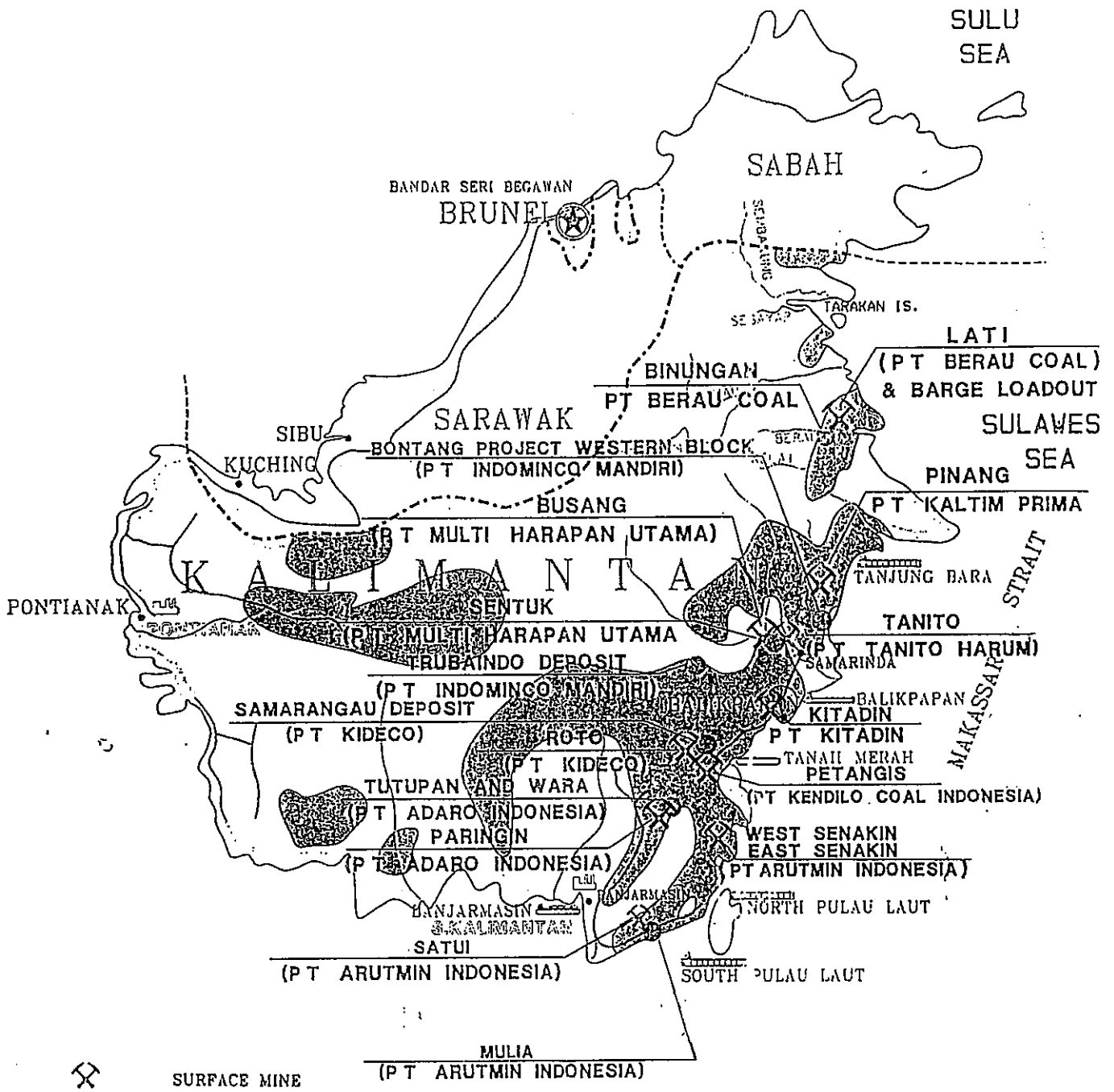


Figure 4.1.5 Coal Deposits and Mines in Kalimantan

Situation of East Kalimantan is considerably different from two others. Wood output accounts for 12% of the state total and output from chemical sector is high. Production of urea, fertilizer, contributed high output of chemical sector producing 1.8 million tons and distributing to domestic (56%) and foreign destinations (44%).

4.1.4 Prospects for Industrial Development

(1) Spatial Plan

The special areas related to the target ports (Figure 4.1.6) and the functions are:

Pontianak	Industry, Food Crops and Fishery
Johar-Sanggau	Industry, Estate, Forestry, Food Crops and Mining
Singkawang	Industry, Estate and Food Crops
Kapuas Hulu	Estate and Food Crops
Sampit	Industry, Estate, Forestry, Food Crops and Fishery
Pangkalan Bun (Kumai)	Industry, Estate, Forestry, Food Crops and Fishery
Balikpapan- Samarinda	Industry, Estate, Forestry, Food Crops, Mining, Fishery and Tourism

(2) Industrial Development Plans

1) Mining

Although there are no concrete plan, exploitation of big deposits of coal, bauxite etc. can be anticipated in West Kalimantan.

2) Industrial Estates

In East Kalimantan, at Kariangau (Balikpapan), an industrial estate development was once planned by using ADB loan, then canceled. The project is progressing slowly at the moment.

(3) Tendency of Industrial Development

Although information about future regional development is so limited, perspective of respective regional development in each province can be organized by collecting provincial government's future outlook and existing reports on several regional development as follows:

West Kalimantan:	Forestry, Exploitation of Mineral Deposits, Palm Oil Plantation
Central Kalimantan:	Palm Oil Plantation, Forestry

East Kalimantan: Industrial Estate,
Mining
Plantation

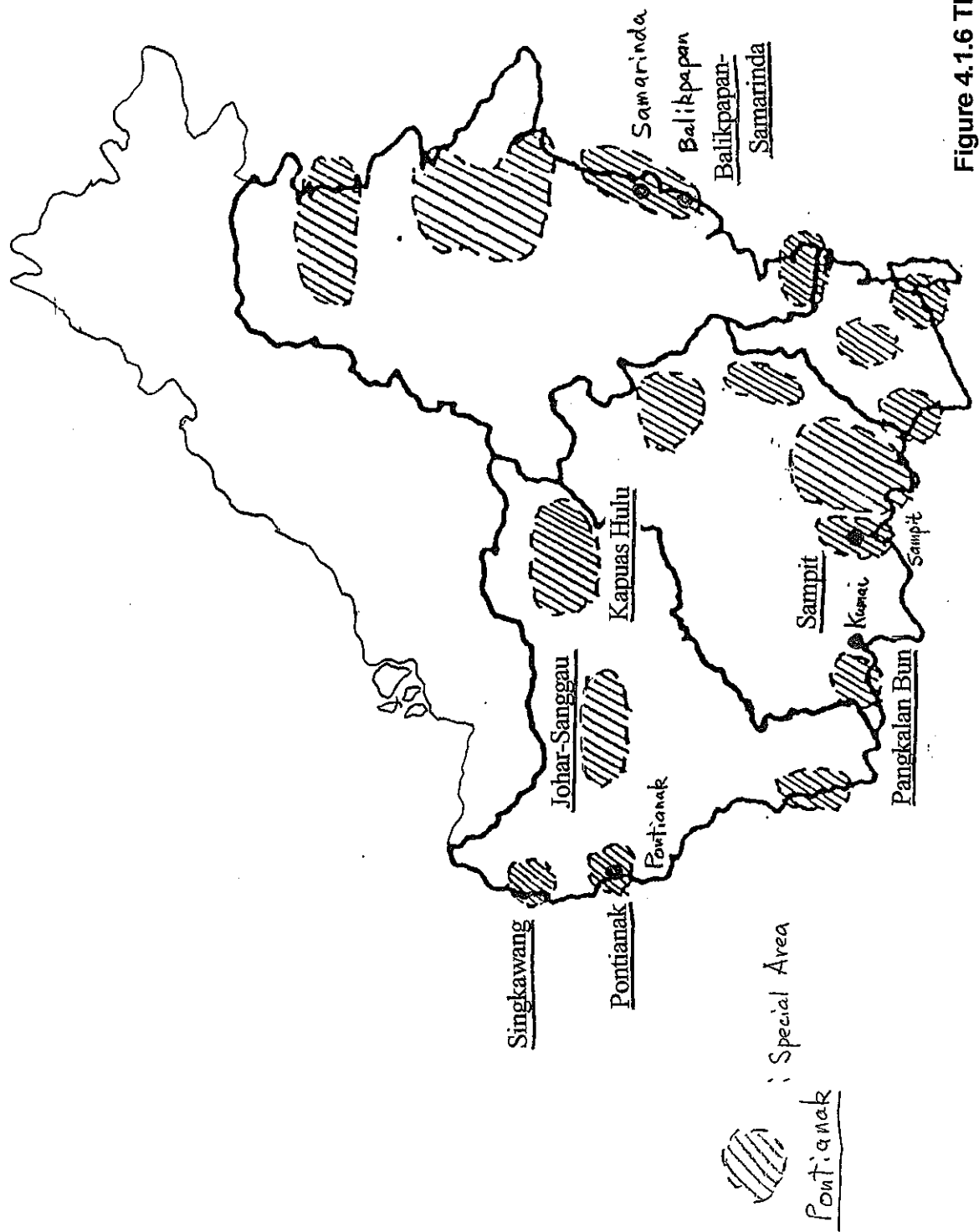


Figure 4.1.6 The Special Areas in Kalimantan

4.2 Existing Port Facilities

4.2.1 Pontianak

(1) General

The Port of Pontianak is located on the left bank of the Kapuas Kecil River, 16 km from the estuary, and just in front of the busy city center of Pontianak, which has about 360 thousand population. The port is managed by Indonesian Port Corporation II, and always crowded with various kinds of calling vessel, which carries general cargo, bulk cargo, container and passenger. Among the port's cargoes, container cargo has been increasing rapidly with the rate of more than 25 % per year, and reached 93 thousand TEUs in 2000. The port is equipped with 710 m long and 4 to 5 m deep quay, which consists of 3 container vessel berths, 3 conventional vessel berths and 1 passenger vessel berth. Behind the port area, the city trunk road, JL Pak Kasim stretches and the distance between the quay and the road is less than 150 m. Both end of the quay at the port is also adjoining the developed district of Pontianak. All those cause the strong necessity to relocate the present port to other undeveloped district, when the port is called by much more cargo vessels in the near future. The Port of Pontianak is also equipped with another 100 m long, 4 m deep quay, which is called Nipah Kuning, and located in about 5 km from the present port, down the stream. 100 m quay in Nipah Kuning is used for Indonesian traditional wooden cargo vessels.

(2) Public Wharves

Public wharves are located in two areas, Pontianak, and Nipah Kuning, about 5 km distant from the Port of Pontianak down the stream. 710 m wharves (4-5 m deep) in front of the city center consist of 7 berths from NO.1 berth to NO.7 berth. Among 7 berths, NO.4, NO.6 and NO.7 berth handle container cargo. NO.3 and NO.5 berth handle both general and bulk cargo to be loaded into/unloaded from conventional vessels. NO.2 berth handles general cargo to be loaded into/unloaded from Indonesian traditional wooden vessels. Finally, NO.1 berth with passenger terminal is used for PELNI's high-speed passenger ship to/from Jakarta and other inter-island passenger boats. Meanwhile, 100 m Nipah Kuning wharves (4 m deep) handle general cargo to be loaded into/unloaded from Indonesian traditional wooden vessels only. Draft limitation, long and narrow access channel with compulsory pilotage, narrow port space surrounded by the developed district of the city, and partially damaged access road due to overweight by heavy trucks are major problems of the Pontianak Port.

(3) Private Wharves

Numerous private wharves are opened on both banks along the Kapuas River to support the local industries. Those private wharves handle CPO, plywood, rubber, and mostly smaller than public wharves in size. Most of bulk cargo like CPO and plywood, is transported by barge to load/unload a mother vessel in anchorage areas in the estuary. Almost all private wharves are dedicated to the use of their owners.

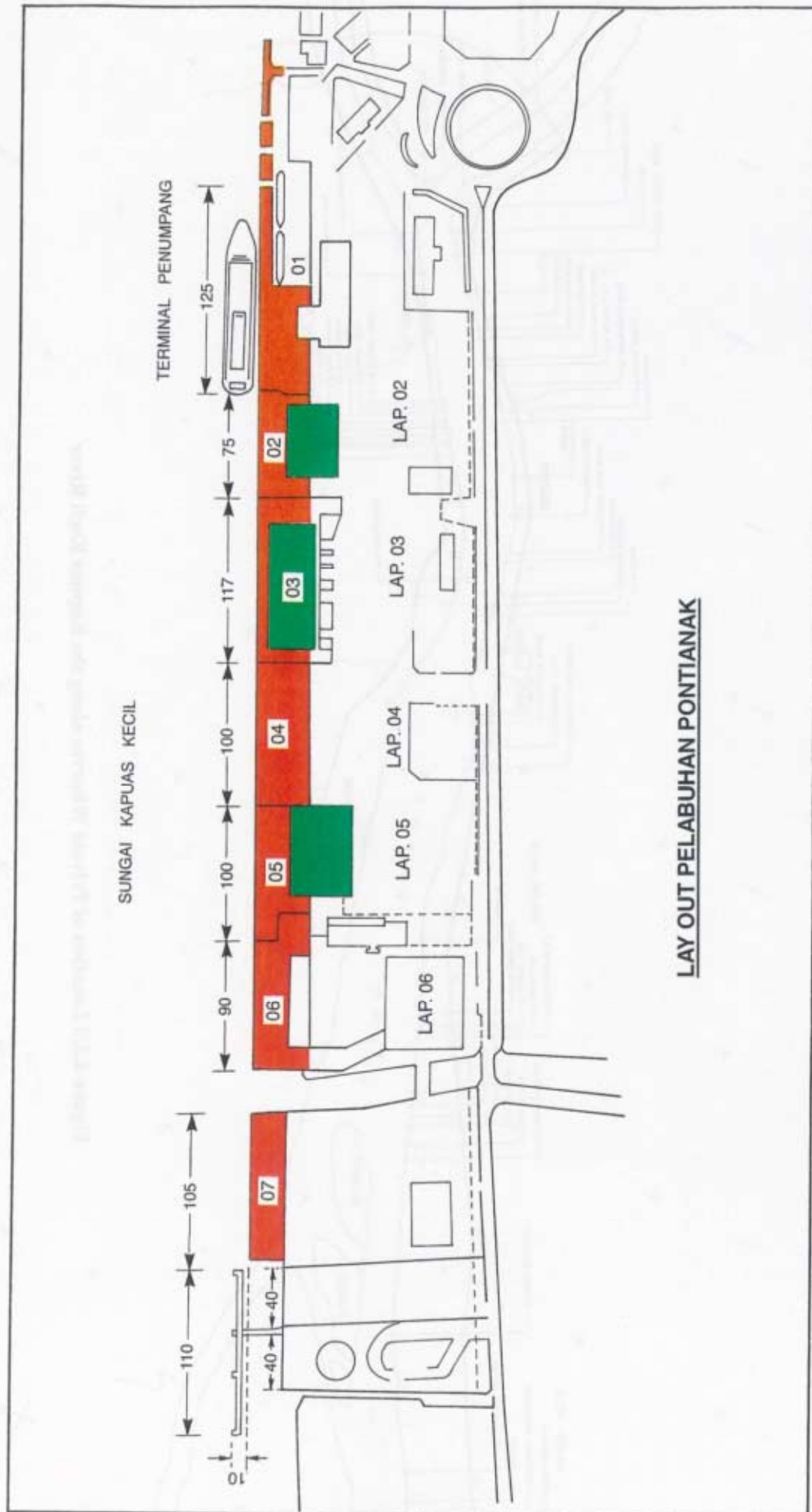


Figure 4.2.1 Lay Out of the Port of Pontianak at Present

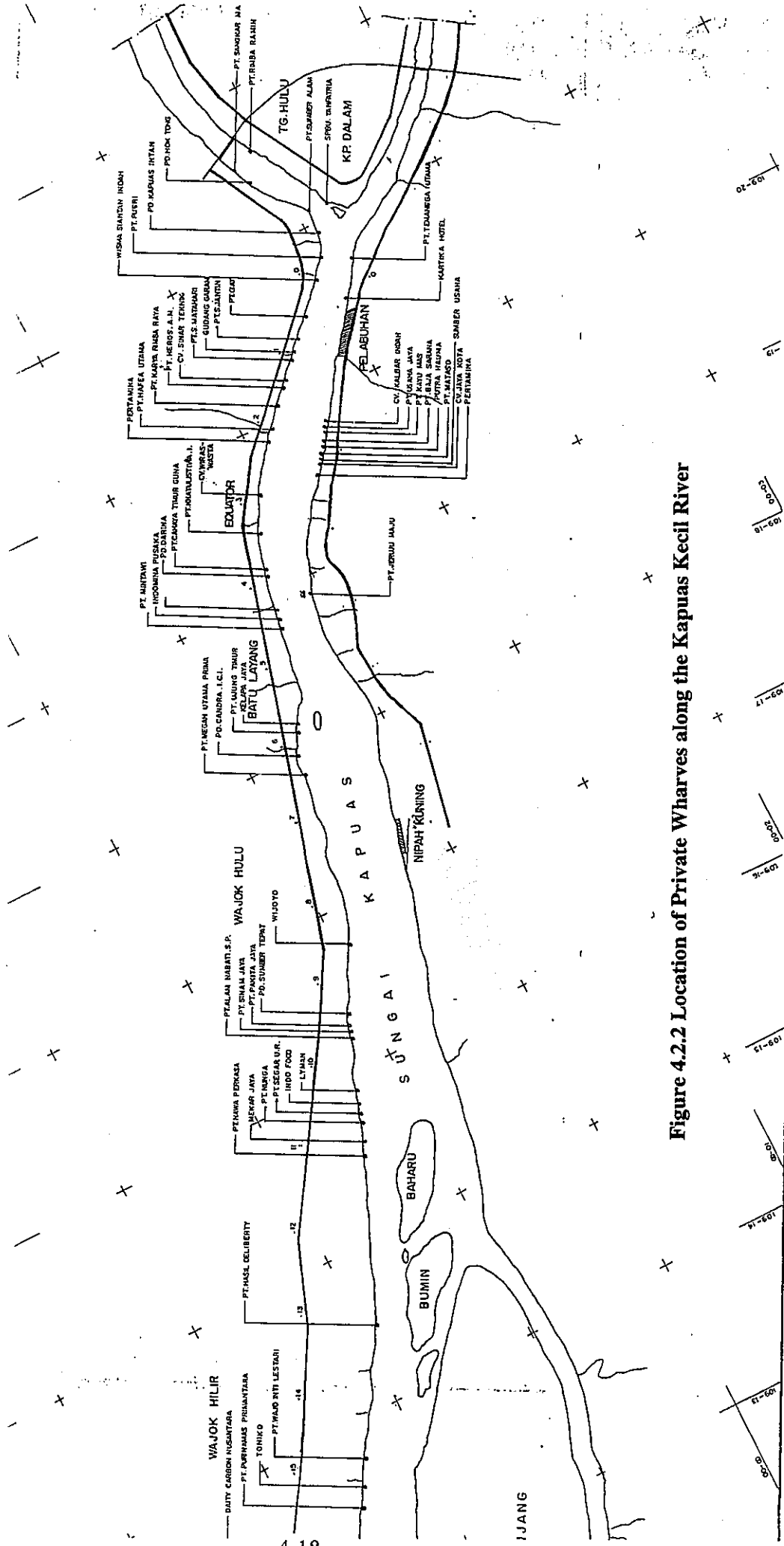


Figure 4.2.2 Location of Private Wharves along the Kapuas Kecil River

4.2.2 Kumai

(1) General

The Port of Kumai is located on the right bank of the Kumai River, 20 nautical miles from the estuary of the river, and just in front of the busy city center of Kumai. The port is managed by Indonesian Port Corporation III, and crowded with bulk cargo vessels and passenger boats. The port is equipped with 322 m long, 4-5 m deep, 10 m in breadth quay. Behind the port area, the city trunk road, JL. Bendahara stretches and the distance between the quay and the road is 85 m at most. Both end of the quay at the port is also adjoining the developed district of Kumai. All those caused the port to be developed in a new site along the Kumai River. The new Kumai port, which is located in Bumiharjo, 11 km up the stream, is now an early stage of construction, and the first phase of the long term project will be operational in December 2001 as the distribution center of CPO, which is produced in the port hinterland in agriculturally rich Central Kalimantan.

(2) Public Wharves

Public wharves are located in two areas, Kumai and Bumiharjo, 11 km up the stream of the Kumai River. 322m wharves (4-5 m deep, 10 m in breadth) in front of the Kumai city center, handle general cargo, bulk cargo, in addition to passenger. General cargo to be loaded into/unloaded from Indonesian traditional wooden vessels, is also handled at wharves at Kumai. Meanwhile, a 60 m jetty, which is now under construction, will handle CPO liquid cargo in July 2001. Draft limitation, long and narrow access channel with compulsory pilotage, narrow port space surrounded by the developed district of the city, are major problems of the Kumai Port.

(3) Private Wharves

Numerous private wharves are opened on both banks along the Kumai River to support the local industries. Those private wharves handle CPO, plywood, rattan, and mostly smaller than public wharves in size. Most of bulk cargo like CPO and plywood, is transported by barge to load/unload a mother vessel in anchorage areas in the estuary. Almost all private wharves are dedicated to the use of their owners.

4.2.3 Sampit

(1) General

The Port of Sampit is located on the right bank of the Mentaya River, 34 nautical miles from the estuary of the river, and just in front of the busy city center of Sampit. The port is managed by Indonesian Port Corporation III, and always crowded with various kinds of calling vessels, which carries general cargo, bulk cargo, container cargo and passenger. Among the port's cargoes, container cargo has been increasing rapidly year by year, and reached 12 thousand TEUs in 1999. The port is equipped with 316 m long, 5.5 m deep, 10 m in breadth wharves, which accommodate conventional, traditional, container and passenger vessels. Behind the port area, the city trunk road, Usman Harun Street stretches which restrains the setback of the port area to gain more space. Both end of quay at the port is also adjoining the developed district of Sampit. All those caused the port to be developed in a new site along the Mentaya River. The new Sampit port, which is located in Bagendang, 22 km down the stream, is now under construction, and the first phase of the long-term project will be operational in December 2001 as the distribution center of CPO, which is produced in the port hinterland in agriculturally rich Central Kalimantan.

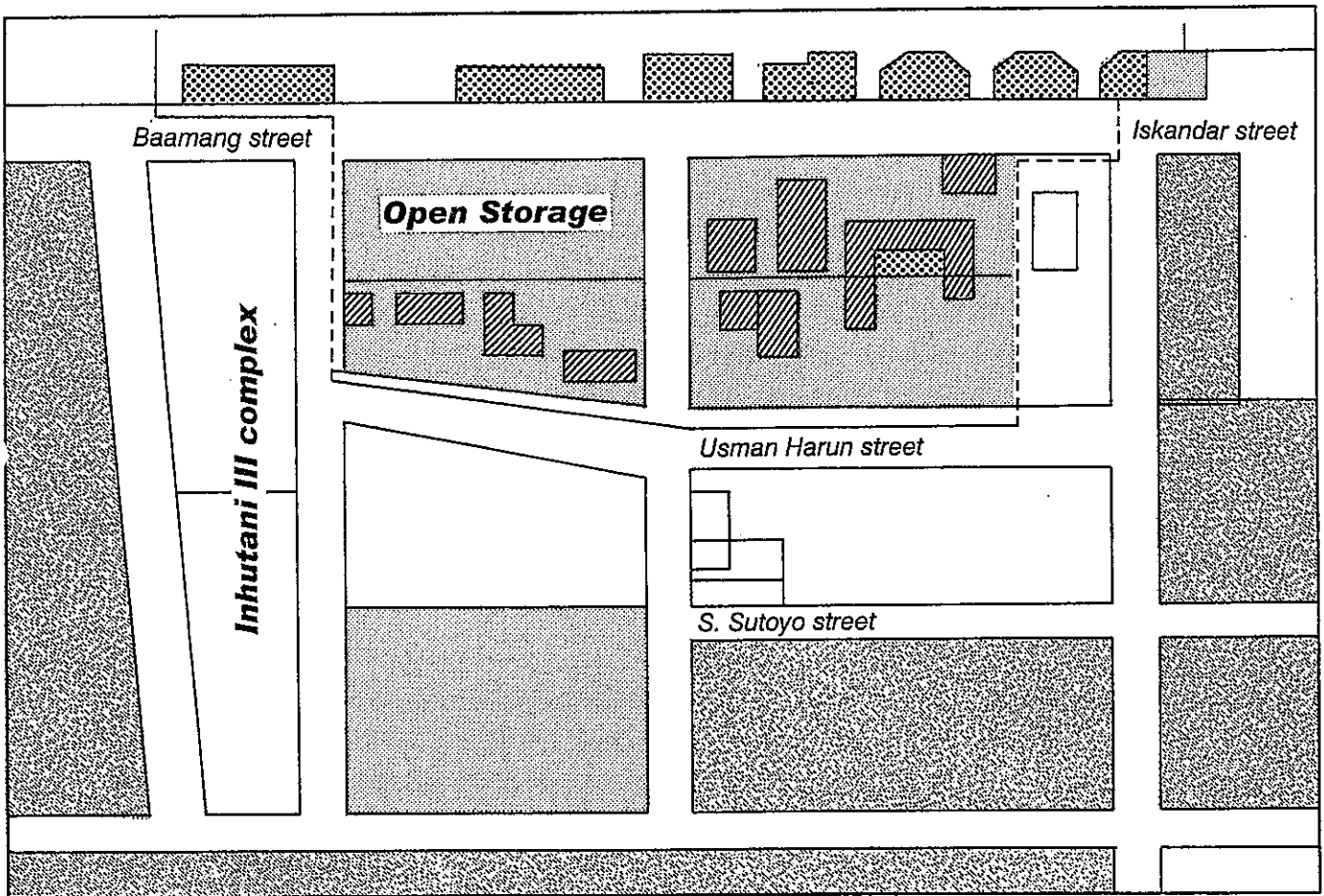
(2) Public Wharves

Public wharves are located in two areas, Sampit and Bagendang, 22 km down the stream of the Mentaya River. 316 m wharves (5.5 m deep, 10 m in breadth) in front of the Sampit city center, handle container cargo, general cargo, bulk cargo, in addition to passenger. General cargo to be loaded into/unloaded from Indonesian traditional wooden vessels, is also handled at wharves at Sampit. Meanwhile a 150 m jetty, now under construction, will handle CPO liquid cargo in December 2001. Draft limitation, long and narrow access channel with compulsory pilotage, narrow port space surrounded by the developed district of the city, are major problems of the Sampit Port.

(3) Private Wharves

Numerous private wharves are opened on both banks along the Mentaya River to support the local industries. Those private wharves handle CPO, plywood, rattan, and mostly smaller than public wharves in size. Most of bulk cargo like CPO and plywood, is transported by barge to load/unload a mother vessel in anchorage areas in the estuary. Almost all private wharves are dedicated to the use of their owners.

Mentaya River









-  Waters
-  Passenger Terminal
-  Mooring Facility
-  Loading / Unloading
-  Office Complex
-  Port Development Planning

Figure 4.2.3 Lay Out of the Port of Sampit at Present

4.2.4 Samarinda

(1) General

The Port of Samarinda is located on the left bank of the Mahakam River, the longest river of Kalimantan, 37 nautical miles from the estuary, called Muara Pegah, and just in front of the busy city center of Samarinda, which has about 400 thousand population. The port is managed by Indonesian Port Corporation IV, and always crowded with various kinds of calling vessel, which carries general cargo, bulk cargo, container and passenger. Among the port's cargoes, container cargo has been increasing very rapidly with the average annual growth rate of more than 35%, and reached 69 thousand TEUs in 2000. The port is equipped with 937m long and 5 to 7 m deep wharves, which consist of 4 container vessel berths, 3 conventional vessel berths, 1 passenger vessel berth and 1 traditional vessel berth. Behind the port area, the city trunk road, JL Yos Sudarso stretches and the distance between the quay and the road is 60m at most. Both end of the quay at the port is also adjoining the developed district of Samarinda. All those cause the strong necessity to construct a new deep-sea port substituted for the present port of Samarinda, before the port is flooded by a huge amount of cargoes in the near future. The Port of Samarinda is also equipped with 7 ha open storage yard, which is temporarily used for additional container yard and is located in Mangkupalas, the opposite bank of the river.

(2) Public Wharves

Public port facilities are located in two areas, that is, Samarinda and Mangku Palas, located on the opposite bank of the Mahakam River. Wharves (937 m long, 5-7 m deep) in front of the Samarinda city center, handle container cargo, general cargo, bulk cargo, in addition to passenger. Among 937 m wharves, a wharf in the middle is specified for accommodating Indonesian traditional wooden vessels, and 100m wharf next to the traditional vessel wharf, is remaining useless due to structural failure at this moment. On the other hand, there is 7 ha open storage yard in Mangku Palas across the river. IPC 4 is planning to accomplish port extension at Mangku Palas to cope with rapidly increasing port cargo. However, any plan of wharf construction has not been revealed yet. Land has been already acquired by IPC 4, and is being used for additional container yard temporarily. Draft limitation, long and narrow access channel with compulsory pilotage, narrow port space surrounded by the highly developed district of the city, are major problems of the Samarinda Port.

(3) Private Wharves

Numerous private wharves are opened on both banks along the Mahakam River to support the local industries. Those private wharves handle, plywood, coal, rattan, and mostly smaller than public wharves in size. Most of bulk cargo like coal and plywood, is transported by barge to load/unload a mother vessel in anchorage areas in the estuary. Almost all private wharves are dedicated to the use of their owners.

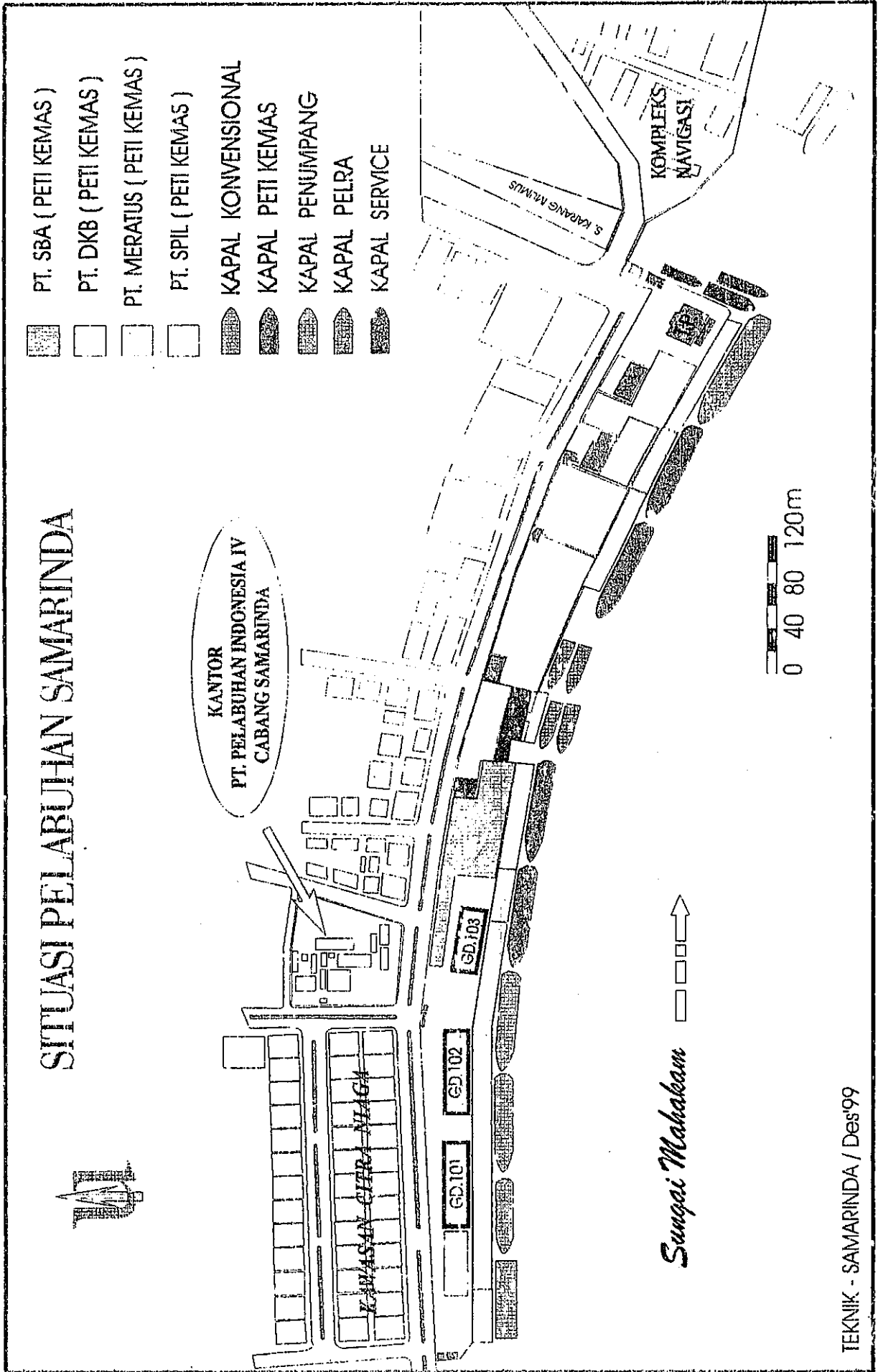
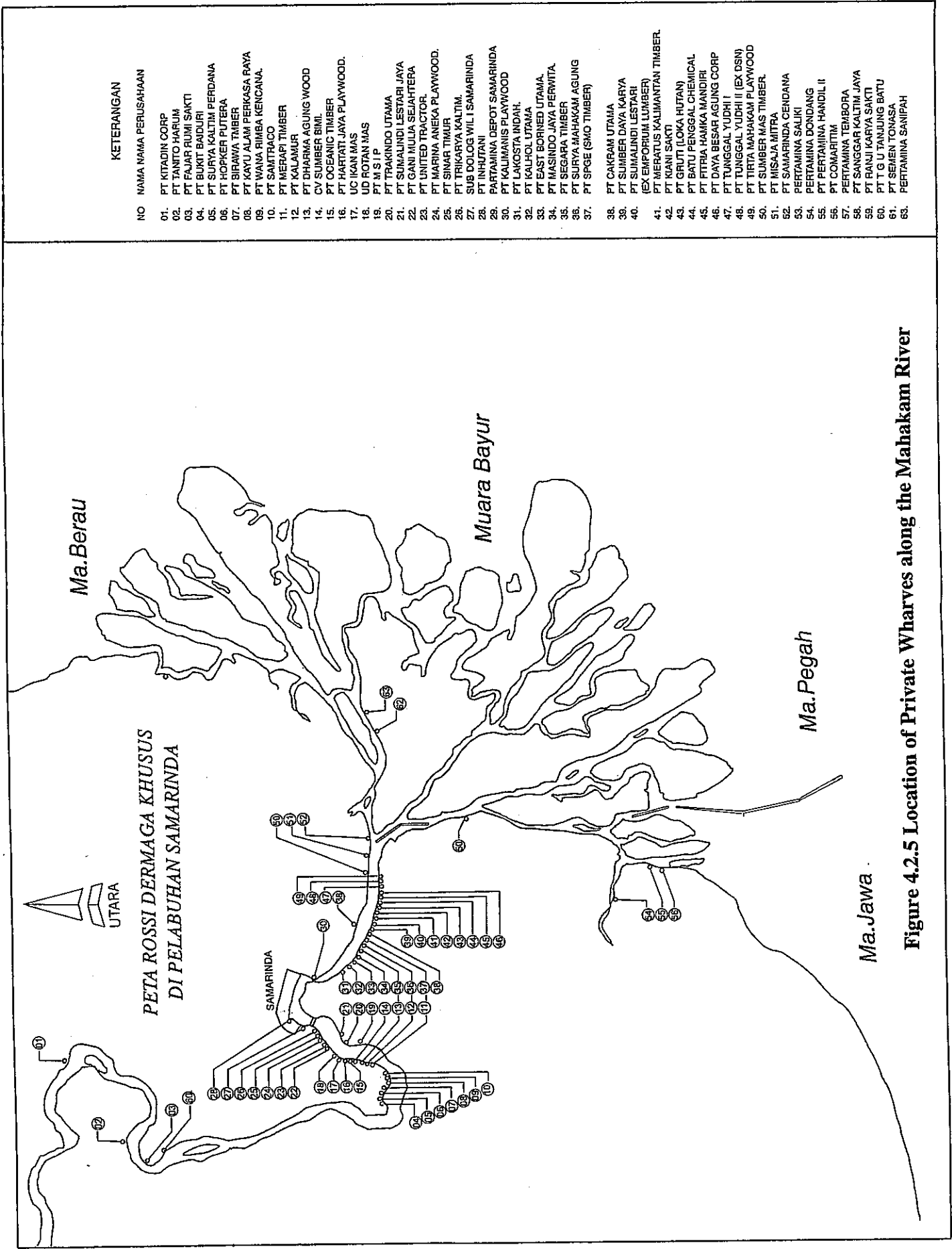


Figure 4.2.4 Lay Out of the Port of Samarinda at Present



KETERANGAN

- | NO | NAMA NAMA PERUSAHAAN |
|-----|--|
| 01. | PT KITADIN CORP |
| 02. | PT TANITO HARUM |
| 03. | PT FAJAR RUMI SAKTI |
| 04. | PT BUKIT BAIURI |
| 05. | PT SURYA KALTIM PERDANA |
| 06. | PT HOPKER PUTERA |
| 07. | PT SIRAWA TIMBER |
| 08. | PT KAYU ALAM PERKASA RAYA |
| 09. | PT WAHA RIMBA KENCANA. |
| 10. | PT SAMTRACO |
| 11. | PT MERAPI TIMBER |
| 12. | PT KALAMUR |
| 13. | PT DHARMA AGUNG WOOD |
| 14. | CV SUMBER RIMI |
| 15. | PT OCEANIC TIMBER |
| 16. | PT HARTATI JAYA PLAYWOOD. |
| 17. | UC IKAN MAS |
| 18. | UD ROTAN MAS |
| 19. | PT M S I P |
| 20. | PT TRAKINDO UTAMA |
| 21. | PT SUNALINDI LESTARI JAYA |
| 22. | PT GANI MULIA SEJAHTERA |
| 23. | PT UNITED TRACTOR. |
| 24. | PT MARINA ANEKA PLAYWOOD. |
| 25. | PT SINAR TIMUR |
| 26. | PT TRIKARYA KALTIM. |
| 27. | SUB DOLOG WILI SAMARINDA |
| 28. | PT INHUTANI |
| 29. | PARTAMINA DEPOT SAMARINDA |
| 30. | PT KALIMANIS PLAYWOOD |
| 31. | PT LAKOSTA INDAH. |
| 32. | PT KALHOL UTAMA |
| 33. | PT EAST BORNED UTAMA. |
| 34. | PT MASINDO JAYA PERWITA |
| 35. | PT SEGARA TIMBER |
| 36. | PT SURYA MAHAKAM AGUNG |
| 37. | PT SPGE (SMO TIMBER) |
| 38. | PT CAKRAM UTAMA |
| 39. | PT SUMBER DAYA KARYA |
| 40. | PT SUNALINDI LESTARI
(EX EMPORIUM LUMBER) |
| 41. | PT MERATUS KALIMANTAN TIMBER. |
| 42. | PT KIANI SAKTI |
| 43. | PT GRUTI (LOKA HUTAN) |
| 44. | PT BATU PENGKAL CHEMICAL |
| 45. | PT FITRIA HANKA MANDIRI |
| 46. | PT DAYA BESAR AGUNG CORP |
| 47. | PT TUNGGAL YUDHI I |
| 48. | PT TUNGGAL YUDHI II (EX DSN) |
| 49. | PT TIRTA MAHAKAM PLAYWOOD |
| 50. | PT SUMBER MAS TIMBER. |
| 51. | PT WISAJA MITRA |
| 52. | PT SAMARINDA CENDANA |
| 53. | PERTAMINA SALUKI |
| 54. | PERTAMINA DONDANG |
| 55. | PT PERTAMINA HANDIL II |
| 56. | PT COMARITIM |
| 57. | PERTAMINA TEMBORA |
| 58. | PT SANGGAR KALTIM JAYA |
| 59. | PT RAJJI KARYA SAKTI |
| 60. | PT T G U TANJUNG BATU |
| 61. | PT SEMEN TONASA |
| 63. | PERTAMINA SANIFAH |

Figure 4.2.5 Location of Private Wharves along the Mahakam River

4.3 Access Channels

4.3.1 Pontianak

(1) General

The Port of Pontianak is located halfway up and on the left bank of the Kapuas Kecil River. The access channel is composed of 15 km estuary channel and 16 km river channel. Total length of the access channel is 31 km. The width and depth of the channel are 80 m and 5.5 m, respectively. Tidal range is 1.3 m at the Port of Pontianak, and almost the same as at the estuary of the river. 15 km of the total channel length is designated to need dredging every year in order to maintain the water depth. Average dredging volume during last 8 years amounts to 1.3 million cubic meters per year, which is equivalent to 14.1 % of nation's total.

(2) Navigation Rules

IPC 2 has the right and responsibility for the administration of the total length of access channel. Pilotage is required for vessels over 150 GRT. Night navigation is allowed, and vessel traffic is two ways throughout the channel.

4.3.2 Kumai

The Port of Kumai is located halfway up and on the right bank of the Kumai River. The access channel is composed of the estuary channel and the river channel. The total length of the access channel is 20 nautical miles. The width and depth of the channel are 50 m and 5 m, respectively. Tidal range is 2.0 m at the Port of Kumai as well as at the estuary of the river. 10 km of the total channel length is designated to need to dredge once in three years in order to maintain the water depth. Average dredging volume during last 8 years amounts to 0.4 million cubic meters per year, which is equivalent to 4.7 % of nation's total.

4.3.3 Sampit

The Port of Sampit is located halfway up and on the right bank of the Mentaya River. The access channel is composed of the estuary channel (10.2 km) and the river channel. The total length of the access channel is 34 nautical miles. The width and depth of the channel are 50 m and 4.5 m, respectively. Tidal range is 2.0 m at the Port of Sampit as well as at the estuary of the river. 15 km of the total channel length is designated to need to dredge once in two years in order to maintain the water depth. Average dredging volume during last 8 years amounts to 0.7 million cubic meters per year, which is equivalent to 7.8 % of nation's total.

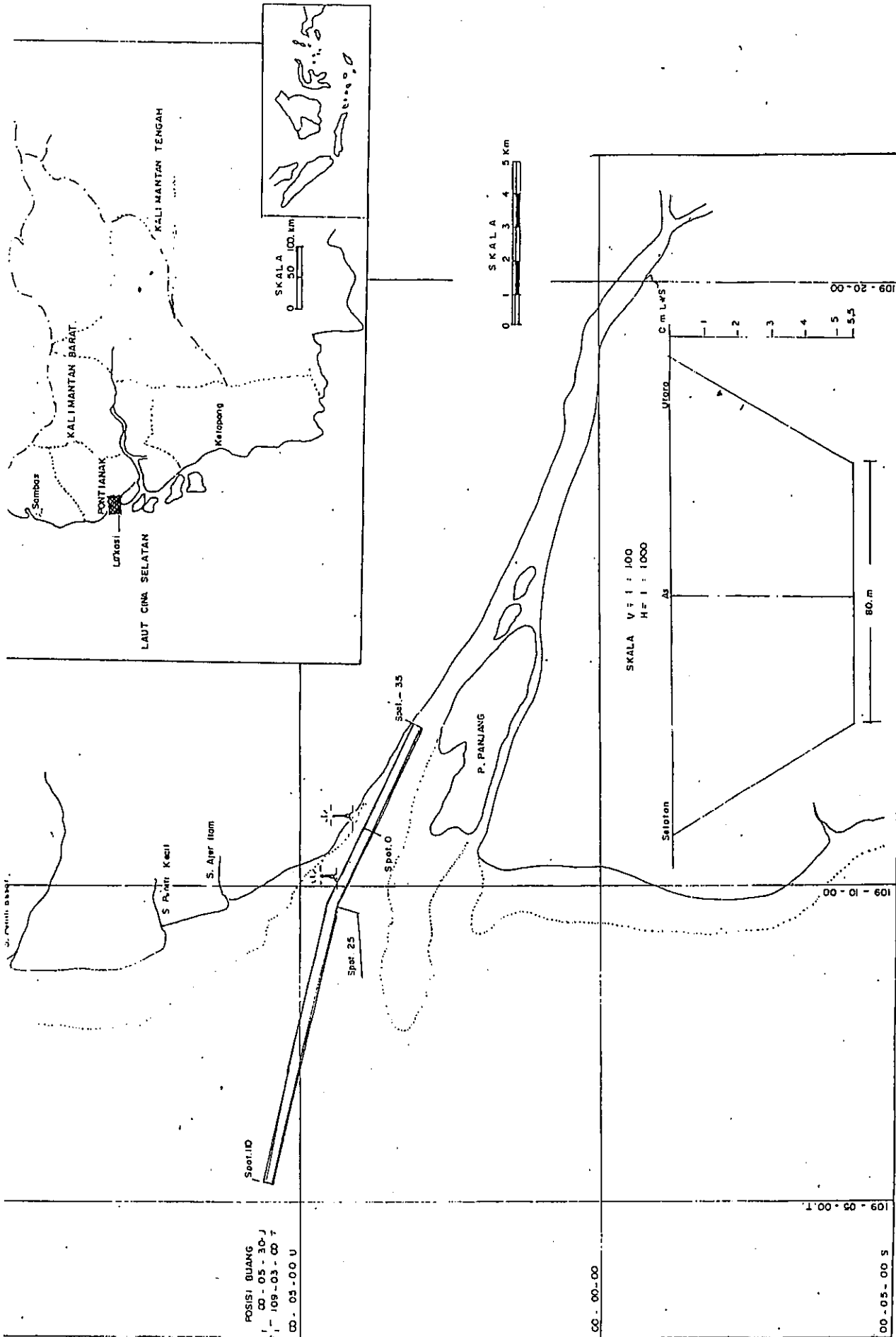


Figure 4.3.1 Access Channel for Maintenance Dredging at Pontianak

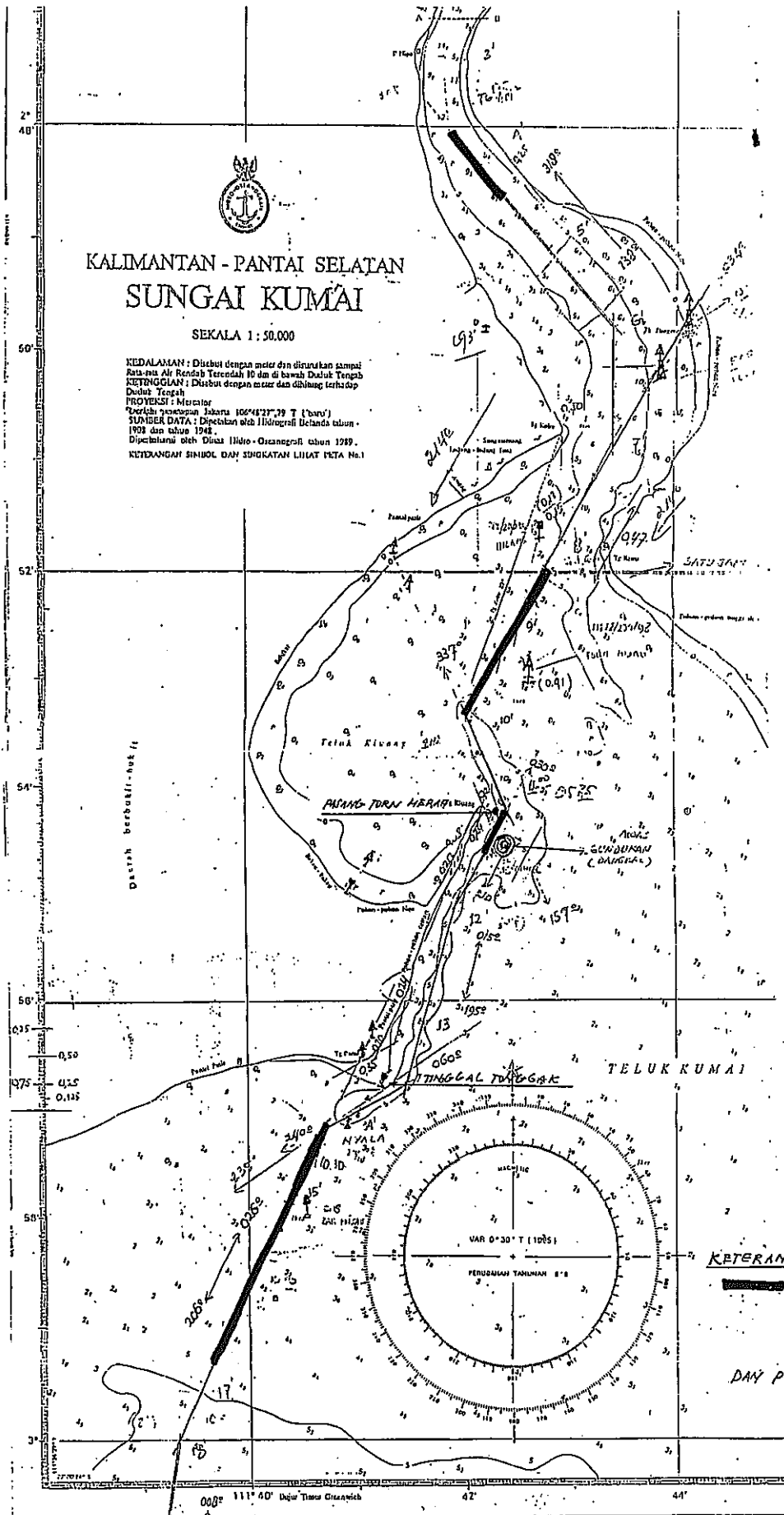


Figure 4.3.2 Access Channel for Maintenance Dredging at Kumai

POTONGAN A - A

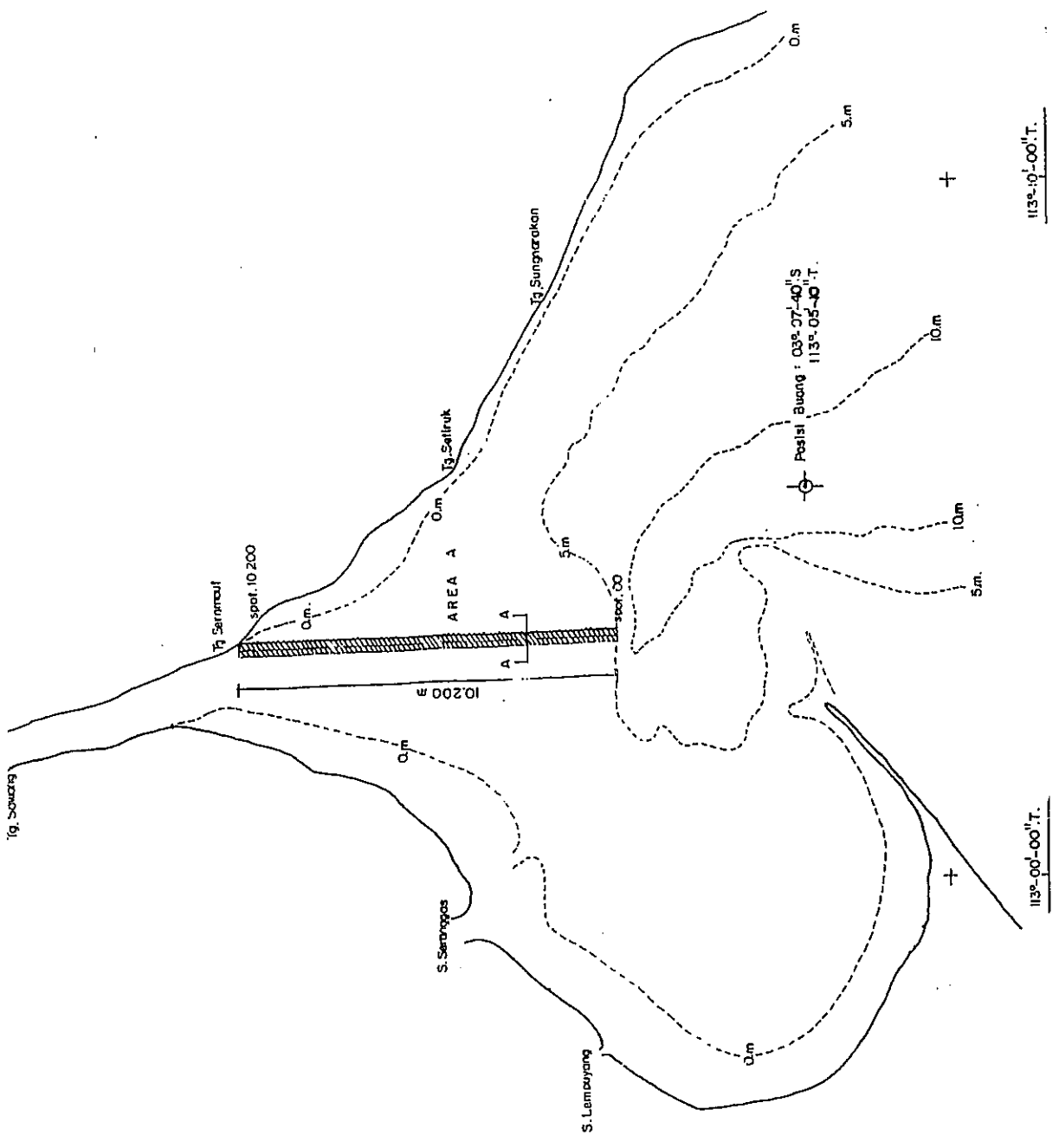
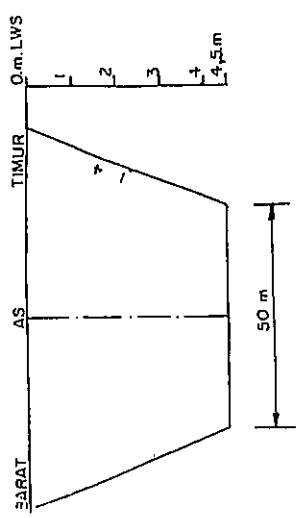


Figure 4.3.3 Access Channel for Maintenance Dredging at Sampit

4.3.4 Samarinda

(1) General

The Port of Samarinda is located halfway up and on the left bank of the Mahakam River. The access channel is composed of the estuary channel and the river channel. The total length of the access channel is 37 nautical miles. The width and depth of the channel are 70 m and 6 m, respectively. Tidal range is 1.5 m at the Port of Samarinda, and almost the same as at the estuary of the river. 24 km of the total channel length is designated to need to dredge every year in order to maintain the water depth. Average dredging volume during last 8 years amounts to 1.4 million cubic meters per year, which is equivalent to 15.6 % of nation's total.

(2) Navigation Rules

IPC 4 has the right and responsibility for the administration of the access channel from the Samarinda Port to the river mouth. The Central Government has the right and responsibility for the administration of the access channel further ahead beyond the river mouth. Pilotage is required for vessels over 150 GRT. Vessels of less than 153 m length (LOA) and 6.8 m draft are allowed to enter the channel by taking advantage of high tide. Night navigation is allowed, and vessel traffic is two ways throughout the channel.

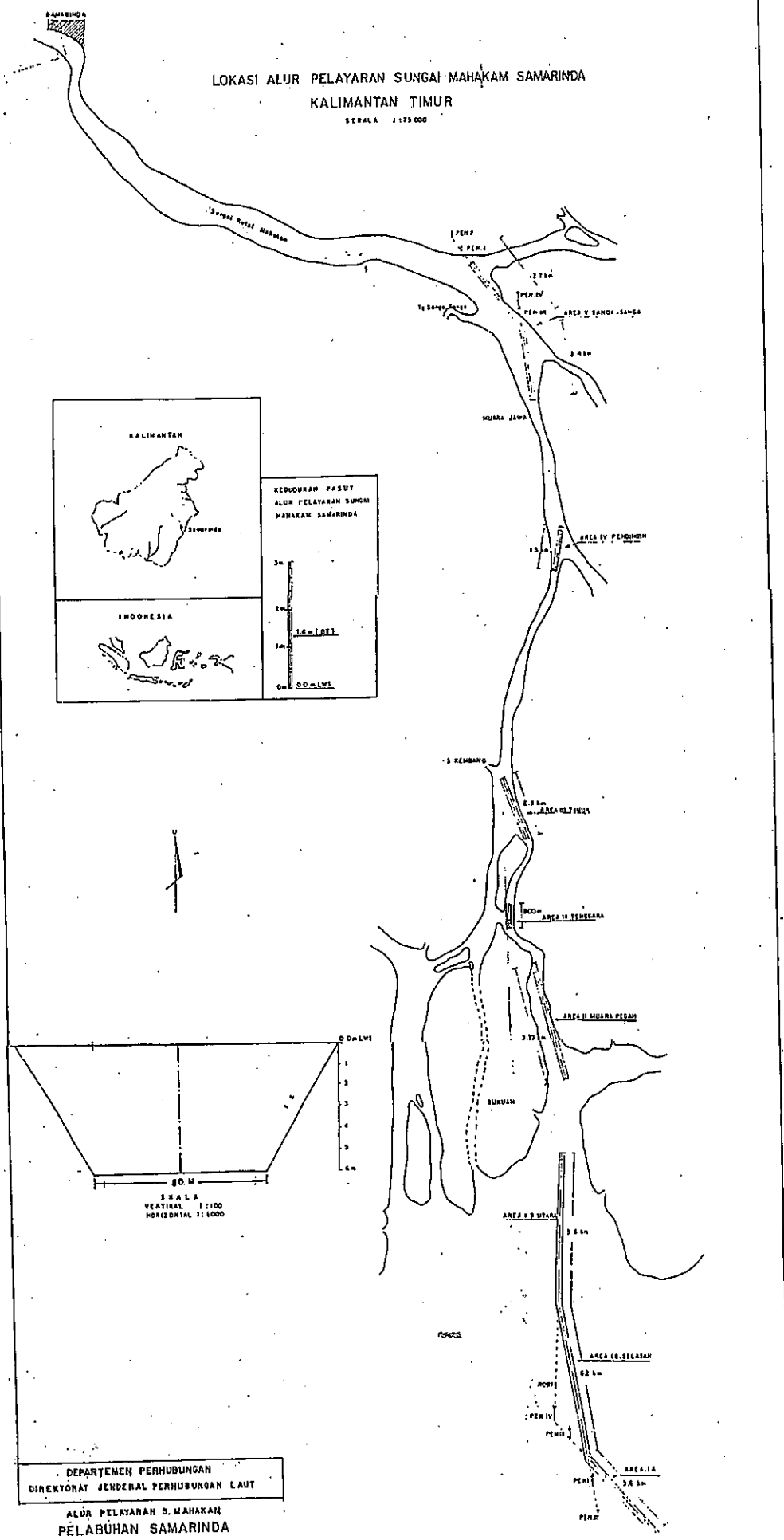


Figure 4.3.4 Access Channel for Maintenance Dredging at Samarinda