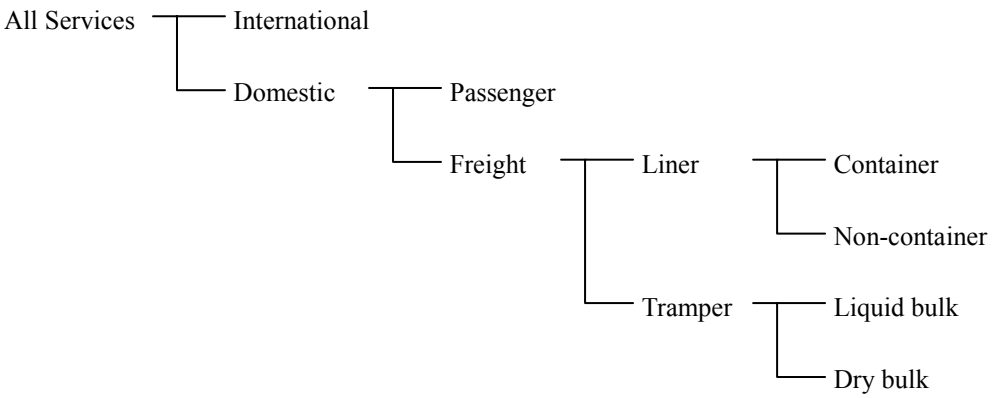
Chapter 4

EXISTING SHIPPING SERVICES

4. EXISTING SHIPPING SERVICES

4.1. Classification

There are various shipping services available on Indonesia waters. Generally, those services can be divided like a binary choice system, as follows:



From Indonesia's development and unification viewpoint, its inter-island shipping must take two kinds of roles:

- Traffic Infrastructure for the economic activities that are operated and managed by private sectors standing on market economy principles.
- Public Services that are maintained or supported by the government to provide lifelines to isolated islands and/or areas.

The latter includes subsidized PELNI operations and pioneer shipping services although the boundary of commercial and public services is unclear.

There are different administrative categories which are effectively being used in maritime administration. Government Regulation 82/1999 on Water Transportation categorizes water transportation activities into five: (1) sea transportation, (2) small-holder shipping, (3) river and lake transportation, (4) ferry transportation, and (5) pioneering water transportation (Article 2).

Another administrative category exists in the licensing system. Under the deregulated licensing system since 1988, there are only two types:

- general shipping company
- specialized shipping (previously called non-shipping) company
- traditional shipping company (using traditional sailing vessels)

Therefore, the present system cannot distinguish domestic shipping companies from overseas shipping companies.

In administrative term, a liner-shipping operator must file a report including its trading routes, changes and deviations to DGSC. Since a liner operator cannot enjoy any monopolized operation right on a certain route, most of the domestic shipping lines at present are likely to be listed as non-liner shipping companies to avoid reporting obligation. Therefore, it is doubtful that the list of liner shipping lines sufficiently covers actual liner services.

Taking into consideration the above-mentioned general and special categories of Indonesia, this chapter adopts the following category system in order to cover all the shipping services on Indonesia territorial waters by means of Indonesian controlled fleet:

- Inter-island freight shipping;
- Inter-island passenger shipping;
- Special shipping;
- Traditional shipping;
- Pioneer shipping; and
- Overseas shipping by Indonesian operators

Figure 4.1.1 Typical Ship Figures

Container Ship

General Cargo Ship

Tanker

Tug & Barge

Passenger Ship

Pioneer Shipping Ship

4.2. Inter-island Freight Shipping

The scope of inter-island freight shipping in this chapter is quite limited since it is the remaining portion of domestic freight shipping deducted from special shipping, pioneer shipping and traditional shipping.

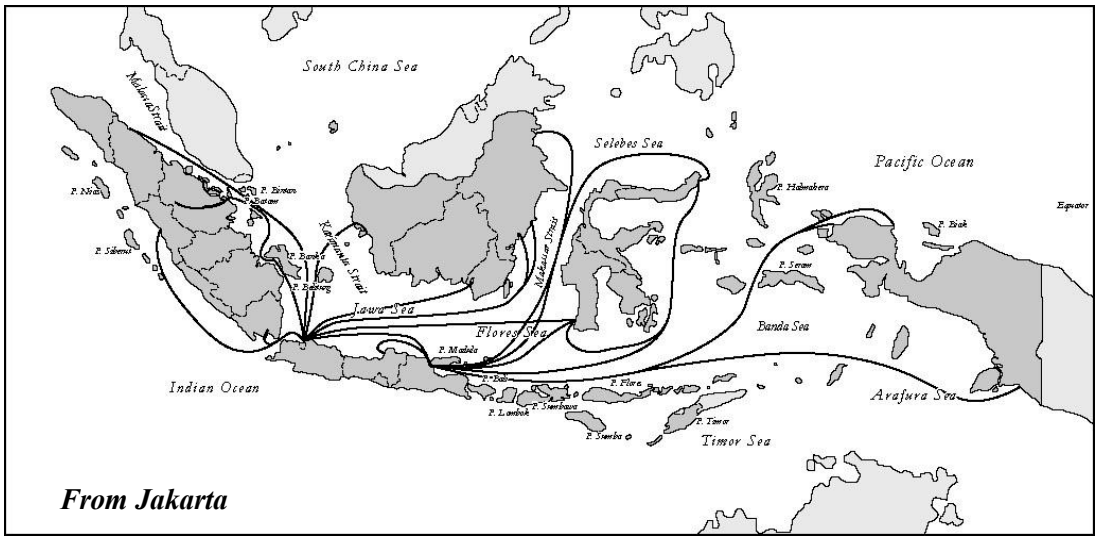
Inter-island freight shipping includes container trade, general cargo trade, dry bulk trade, and liquid bulk trade. Small operators in both traditional and pioneer shipping carry various general cargoes. Special shipping operators are engaged in dry and liquid bulk trades. However, inter-island freight shipping has a dominant share of about 80% in domestic freight shipping.

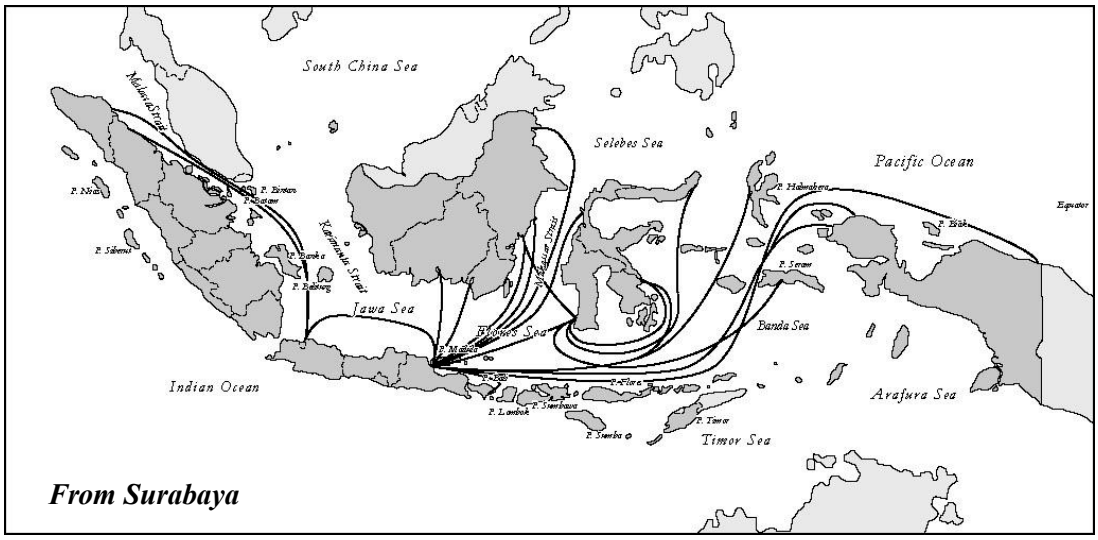
4.2.1. Container Trade

Judging from DGSC and INSA database, 34 companies with 96 ships are currently engaged in domestic container trade. About half of container haulage is done by liner services and routes are registered with DGSC.

Domestic container shipping network has two patterns: 13 routes from Jakarta origin and 16 routes from Surabaya origin.

Figure 4.2.1 Container Shipping Homeporting Jakarta and Surabaya

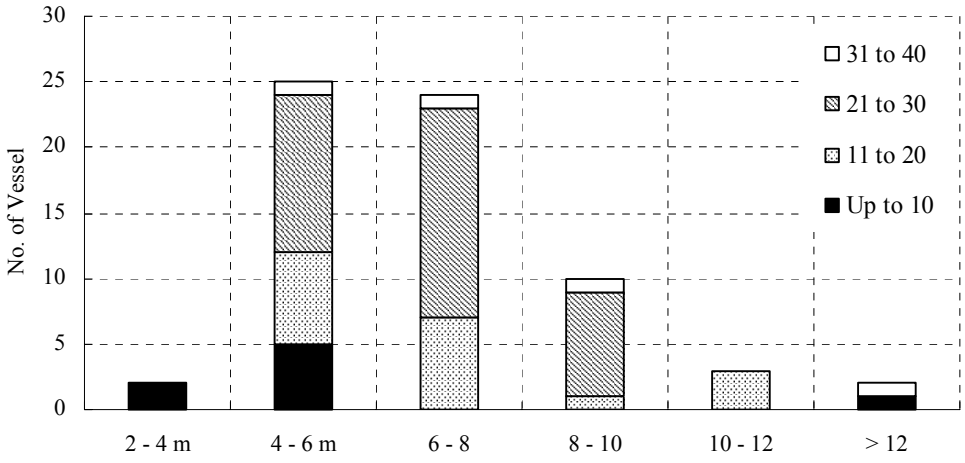




The Study collected 69 container ship data from 16 companies. Analysis of domestic container fleet are as follows:

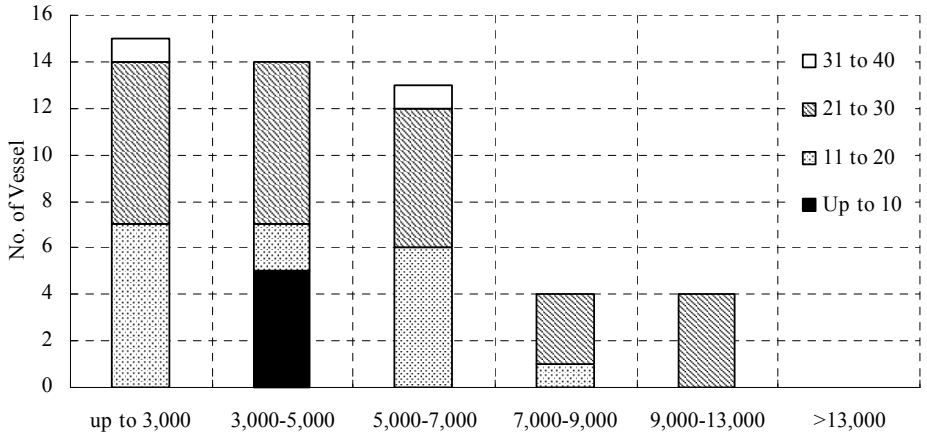
- Container vessels in Indonesia still seem to function as multi-purpose vessels and the draft is shallow. Majority of the vessels have only 4 to 8 meters, and all newly introduced vessels have almost less than 6 meters.
- Capacity by DWT focuses on rather small size and the new vessels are in the range of 3000 to 5000 DWT. This tendency reflects the low rate of containerization in this country. But the speed of vessel concentrated to the range between 9 to 12 knots which indicate liner operation is a requirement of container operation.
- But most container vessels have their own gear for container handling, either as a multi-purpose vessel or out of necessity to handle by themselves, because of lack of facilities at port.

Figure 4.2.2 Draft of Vessel by Age Group (Container Vessel)



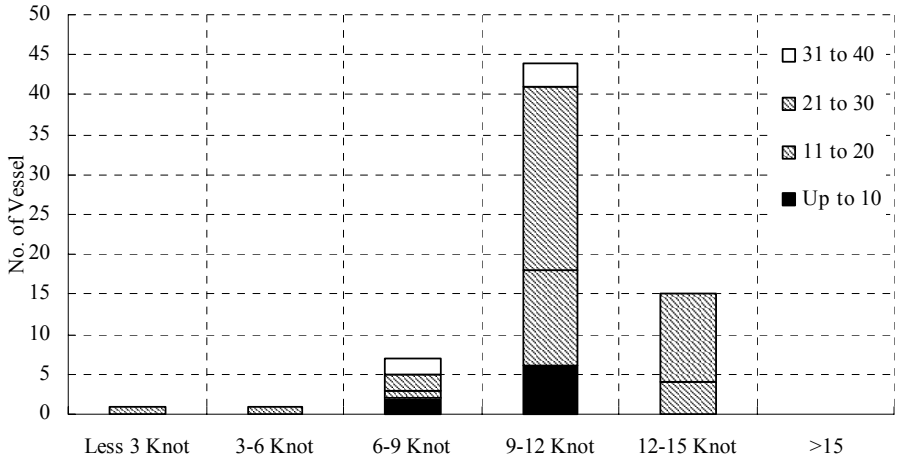
Source: STRAMINDO

Figure 4.2.3 DWT of Vessel by Age Group (Container)



Source: STRAMINDO

Figure 4.2.4 Speed of Vessel by Age Group (Container)



Source: STRAMINDO

Table 4.2.1 Cargo Handling Equipment of Vessel by Age Group (Container)

	Yes	No	Total
Up to 10	6	2	8
11 to 20	18	1	19
21 to 30	18	6	24
31 to 40	1	1	2
Total	43	10	53

Source: STRAMINDO

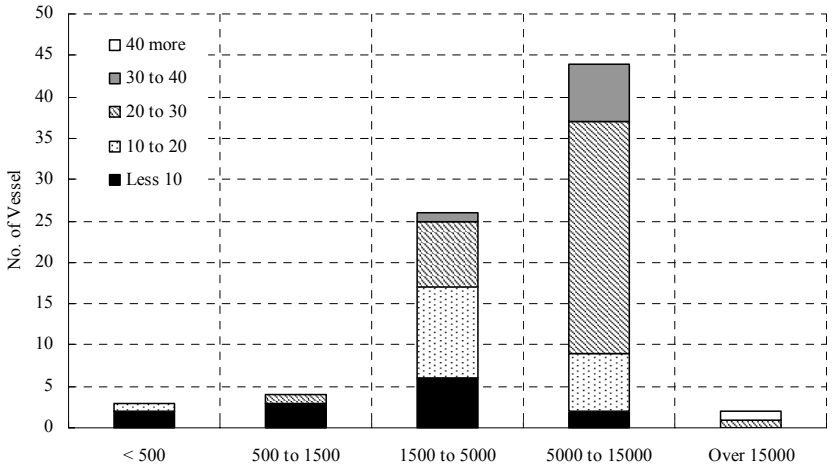
4.2.2. General Cargo Trade

General cargo trade uses conventional vessels in a conventional way. Most of transported cargoes are containerizeable. But the DGSC statistics shows that the volume of general cargo (i.e., 32.5 million tons in 2001) is 7.6 times bigger than that of container cargo (i.e., 4.3 million tons in 2001). The main reasons hampering containerization are poor port facilities and prohibitive container ship. There are still many general cargo operators engaged at present, with the number of operators and vessels at 613 and 1,263, respectively, or an average of two vessels per cargo operator.

The Study collected 94 vessel data from 28 operators. The fleet has the following features:

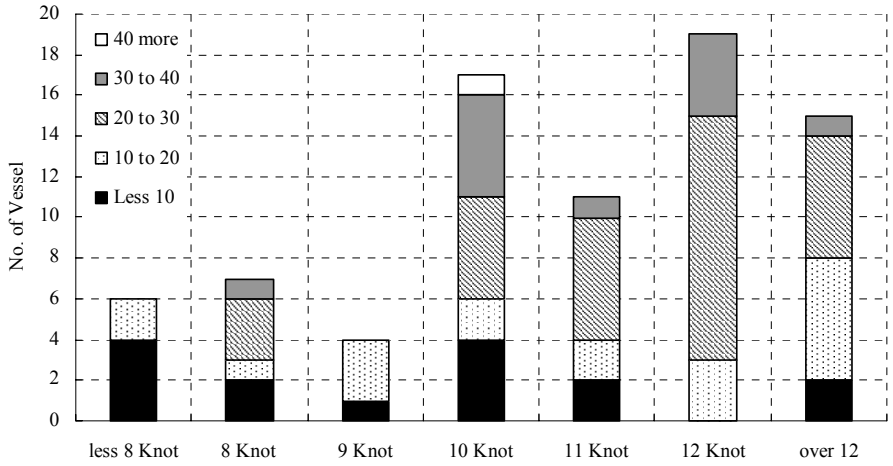
- Conventional vessels which are already 20-30 years have approximately the size of 10,000 DWT, has self-gear and most of which are cement carriers. In addition, most of these vessels have a good speed of 12 knots.
- On the contrary, newly introduced vessels have low speed with shallow draft. New vessels are rather small with a size of less than 5,000 DWT and half of them do not have self-gear.
- Liner operation of conventional will be done by these small-sized vessels without self-gear, which may indicate economical operation in terms of running cost of vessel.

Figure 4.2.5 Conventional Vessel: DWT of Vessel by Age group



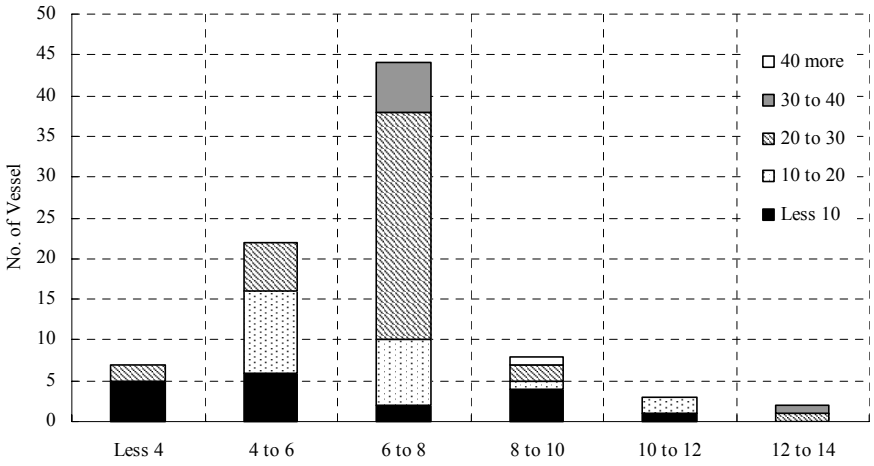
Source: STRAMINDO

Figure 4.2.6 Speed by Age group (Conventional Vessel)



Source: STRAMINDO

Figure 4.2.7 Draft of Vessel by Age group (Conventional Vessel)



Source: STRAMINDO

Table 4.2.2 Cargo Handling Equipment by Age Group (Conventional Vessel)

	No	Yes	Total
Less 10	7	8	15
10 to 20	1	19	20
20 to 30	1	34	35
30 to 40	1	7	8
40 more		1	1
Total	10	69	79

Source: STRAMINDO

4.2.3. Dry Bulk Trade

Dry bulk trade carries 26.1 million tons in 2001. The major commodities are coal, cement, fertilizer, wood, and other construction materials. Coal is transported by general shipping companies, such as Mitra Bahtera Segara Sejati and First Marina Mining, while special shipping companies play a significant role in cement, fertilizer and wood products.

Even cargo is transported in bulk; a combination of tug and barge is popular on many calm waters. This is the reason why Indonesian fleet has a small number of bulk carriers: 25 vessels with 344 thousand gross tons under BKI in 2002.

The share of Indonesian fleet in dry bulk trade is as low as 56% in 2001: coal (59%) and sand (48%). However, wood products are carried by only Indonesian flagged vessels since three ministries (MoC, MTI and Ministry of Forestry) strictly control wood carriage.

The Study collected information from 30 bulk carriers from 11 shipping companies. Their features are as follow:

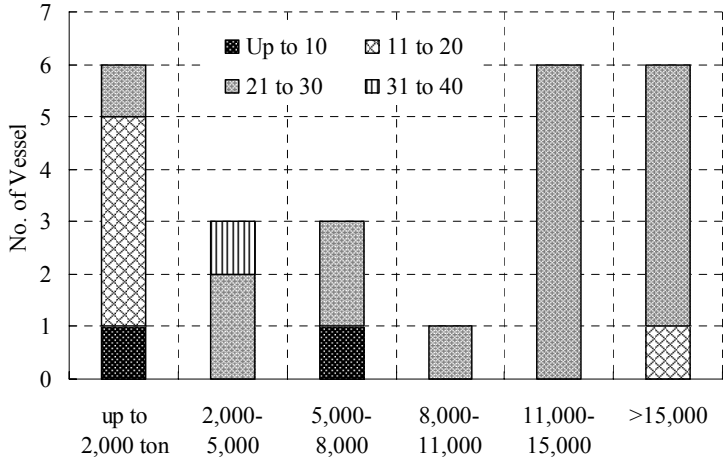
- In terms of vessel size, there appears to be two distinctive groups: the aged group but with a large fleet and the young but small vessel group.
- Both groups have advantages in terms of cost effectiveness. In particular, the first group procured its fleet second-hand, with the large carrying capacity was welcomed by traders of large volume such as cement or grains.
- The second group was introduced as new vessels for quick operation dealing with limited capacity. All these new vessels have speed of more than 9 knots and have shallow draft so that they can reach river ports in Kalimantan.
- For bulk carriers, speed is considered important compared to other vessel type. Many vessels of bulk carriers are more than 12 knots.
- Normally, most of the vessels are equipped with self-gears. However, newly introduced vessels do not have self-gears thus these vessels rely on port facilities.

Table 4.2.3 Equipment of Vessel by Age Group (Bulk Carrier)

	Yes	No	Total
Up to 10 years	1	3	4
11 to 20 years	5	1	6
21 to 30 years	15	3	18
31 to 40 years	1		1
Total	22	7	29

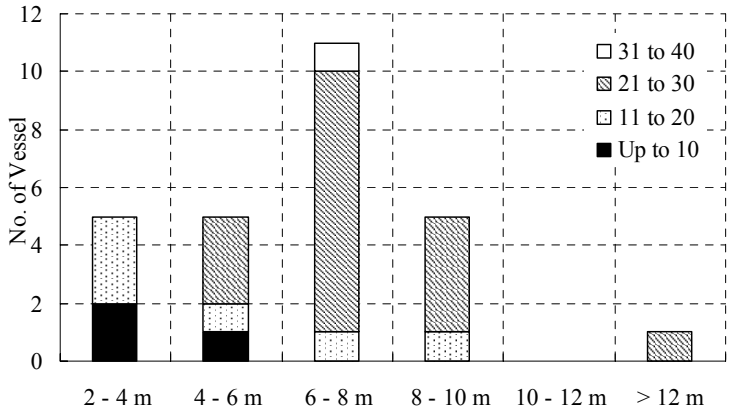
Source: STRAMINDO

Figure 4.2.8 DWT of Vessel by Age Group (Bulk Carrier)



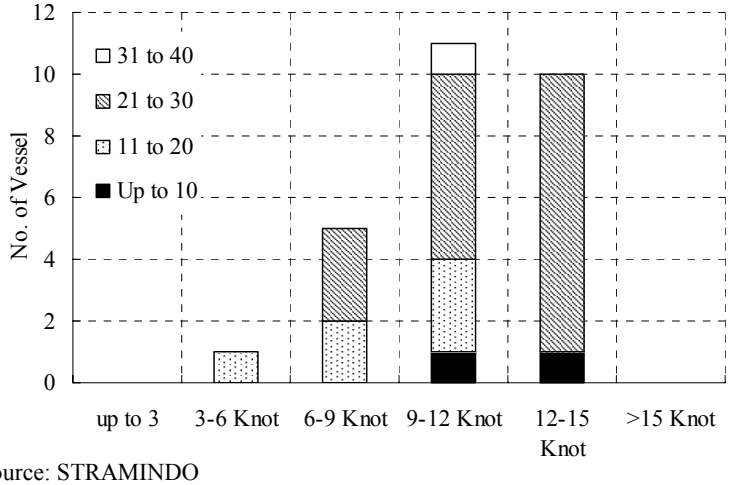
Source: STRAMINDO

Figure 4.2.9 Draft of Vessel by Age Group (Bulk Carrier)



Source: STRAMINDO

Figure 4.2.10 Speed of Vessel by Age Group (Bulk Carrier)



Source: STRAMINDO

4.2.4. Liquid Bulk Trade

Liquid bulk trade transports 83 million tons and includes fuel oil, palm oil and other liquid products. With regard to fuel oil carriage, the shares between general and special shipping companies cannot be clearly delineated. Pertamina Shipping, a special shipping company, own vessels as well as charter vessels from foreign and national shipping lines to control all the fuel oil haulage. But contracted national shipping lines are general shipping companies such as Berlian Laju Tanker (BLT). Thus, the share of national tonnage was 48.8% in 2001.

With regard to palm oil carriage, some general shipping companies are major players such as Humpuss Intermoda Transportasi Tbk and Tahta Bahtera. The national tonnage share was 82.8% in 2001.

Data on the 59 tankers of 13 shipping companies were collected in the Study. Tankers, especially the new ones, have high speed, with shallow draft and with large DWT. By nature of their commodity, tankers usually do not have self-gear and the existence of newly procured vessel indicates the reasonable profitability of this type of vessel.

Figure 4.2.11 DWT of Vessel by Age Group (Tanker)

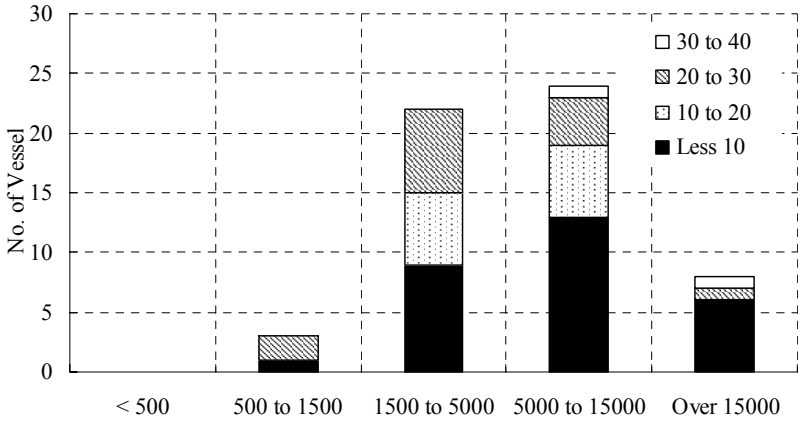
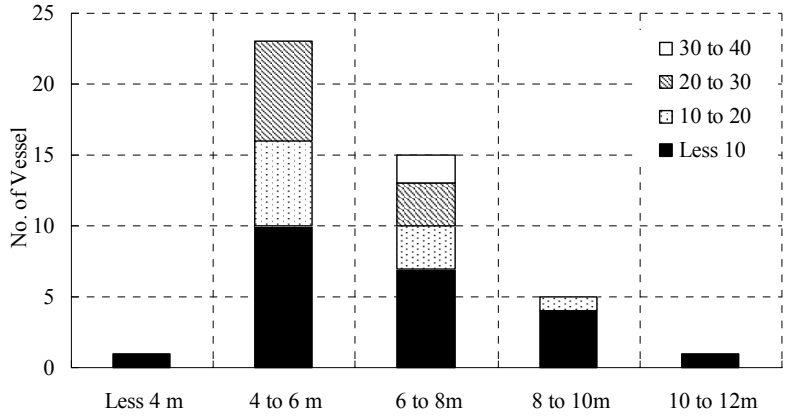
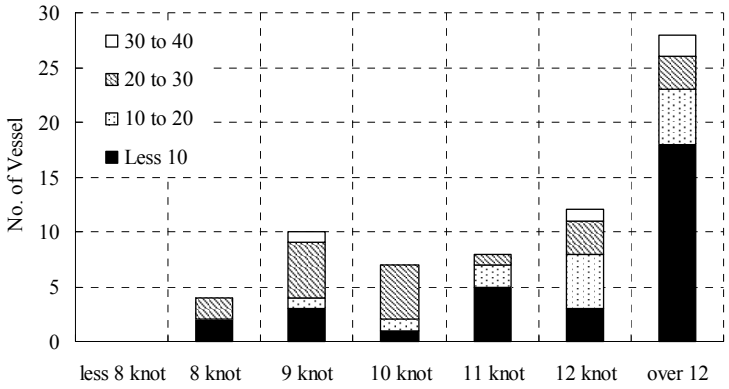


Figure 4.2.12 Draft of Vessel by Age Group (Tanker)



Source: STRAMINDO

Figure 4.2.13 Speed by Age Group (Tanker)



Source: STRAMINDO

4.3. Inter-island Passenger Shipping

4.3.1. Indonesian Passenger Shipping Categories

Indonesia's maritime development has been heavily influenced by the country's unusual geography. The nation is composed of more than 17,000 islands and has 656 public ports. In order to economically link the country together, development of shipping, particularly inter-island shipping, is a national necessity.

Transportation of general public forms the integral part of inter-island shipping. The passenger shipping of various types covers most of the inhabited islands.

There are two significant categories in Indonesian passenger shipping. One is ferry type transportation for short distance and the other is passenger ship type transportation for medium/long distance.

Table 4.3.1 Number of Passengers Carried by Two Modes of Transportation

Mode	Number of passengers	(Source)
Ferry	34,197,063	(DGLT)
Passenger ship	11,732,811	(DGSC + PT.PELNI)
Total	45,929,874	Data year: 2001

Source: DGLT, DGSC & PT. PELNI

In regard to transportation administration, these two categories are parts of transportation on waters. But the operational control of them are under separate directorate general in the Ministry of Communications. Safety regulation and control of these two categories are under DGSC.

In addition, there is passenger transportation by other category of shipping, which is relatively small in number and carried together with cargo, the main business of this type of shipping.

Table 4.3.2 Number of Passengers Carried by other Mode

Mode	Number of passengers	(Source)
Traditional shipping	1,632,462	(DGSC)
Pioneer shipping	345,697	(DGSC)
Total	1,978,159	Data year: 2001

Source: DGSC

The Directorate General of Land Transportation controls ferry type transportation. This is based on the idea that the ferry type transportation is an extension of road and railway service as planned in Article 75 of Government Regulation, PP 82/1999, which reads as follows:

The criteria for the ferry route referred to in this paragraph cover the following:

- connecting road networks and or railway networks that have been disconnected by sea, strait and gulf;
- serving fixed and regular route;
- function as mobile bridge;
- connecting two ports; and
- does not transport loose cargo

As shown above, the basic idea of ferry service under this category is as a shuttle service, connecting two points that are not so far apart from each other. The cargo, except for vehicles which are driven in and out of the vessel without using ships gear, is not carried by the ferry service.

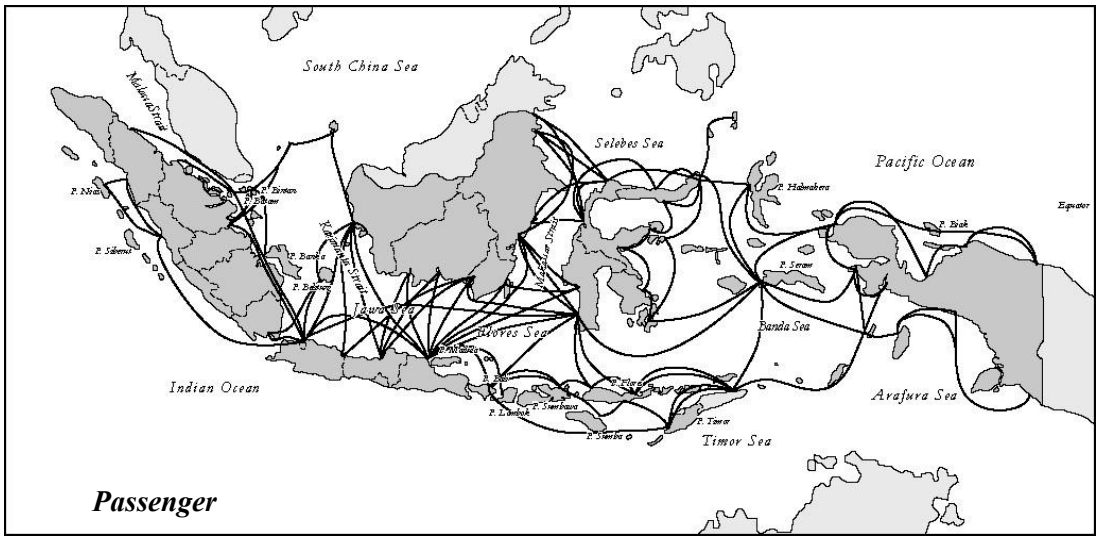
Major routes falling on this category are:

- Marak – Bakauheni route, connecting Java and Sumatra
- Kamal – Ujung route, connecting Surabaya, Java and Madura Island
- Ketapang – Gilimauk route, connecting Java and Bali Island

All other type of passenger transportation, excluding ferry service as defined above, is under the control of the Directorate General of Sea Communication and is the area of study in this project. The type of passenger transportation in this category varies from large-scale pure passenger ship operation by state-owned shipping company to small transit boat operation in the local area of the country.

State-owned company, PT. PELNI, extends its service to the most part of this vast nation. Some private shipping companies offer their service in the trunk route of domestic sea travel while many small-size private companies serve local demand.

Figure 4.3.1 Passenger Ship Route Map



4.3.2. Passenger Ship Operators

The Indonesian Passenger Shipping Category is summarized in Figure 4.3.3.

Major operator of passenger ship is the state-owned PT. Pelayaran Nasional Indonesia (PELNI) with passenger service network covering extensively all over the territorial water of Indonesia.

Several other private passenger ship operators offer their services mainly along the Java Sea corridor. They are connecting major ports in Java (Tg. Priok, Semarang, Surabaya) with major ports in Kalimantan and Sulawesi (Pontianak, Banjarmasin, Balikpapapn, Makassar). Some of these operators, PT. Prima Vista, PT. Dharma Lautan Utama and PT. ASDP, extend their service to Batam and Bintan Islands.

PT. ASDP is a state-owned company and a major operator of ferry service. But it also participates in some non-ferry routes, such as Surabaya/Balikpapan, using high-speed boats. These ferry boats however were procured not specifically for ferry type service.

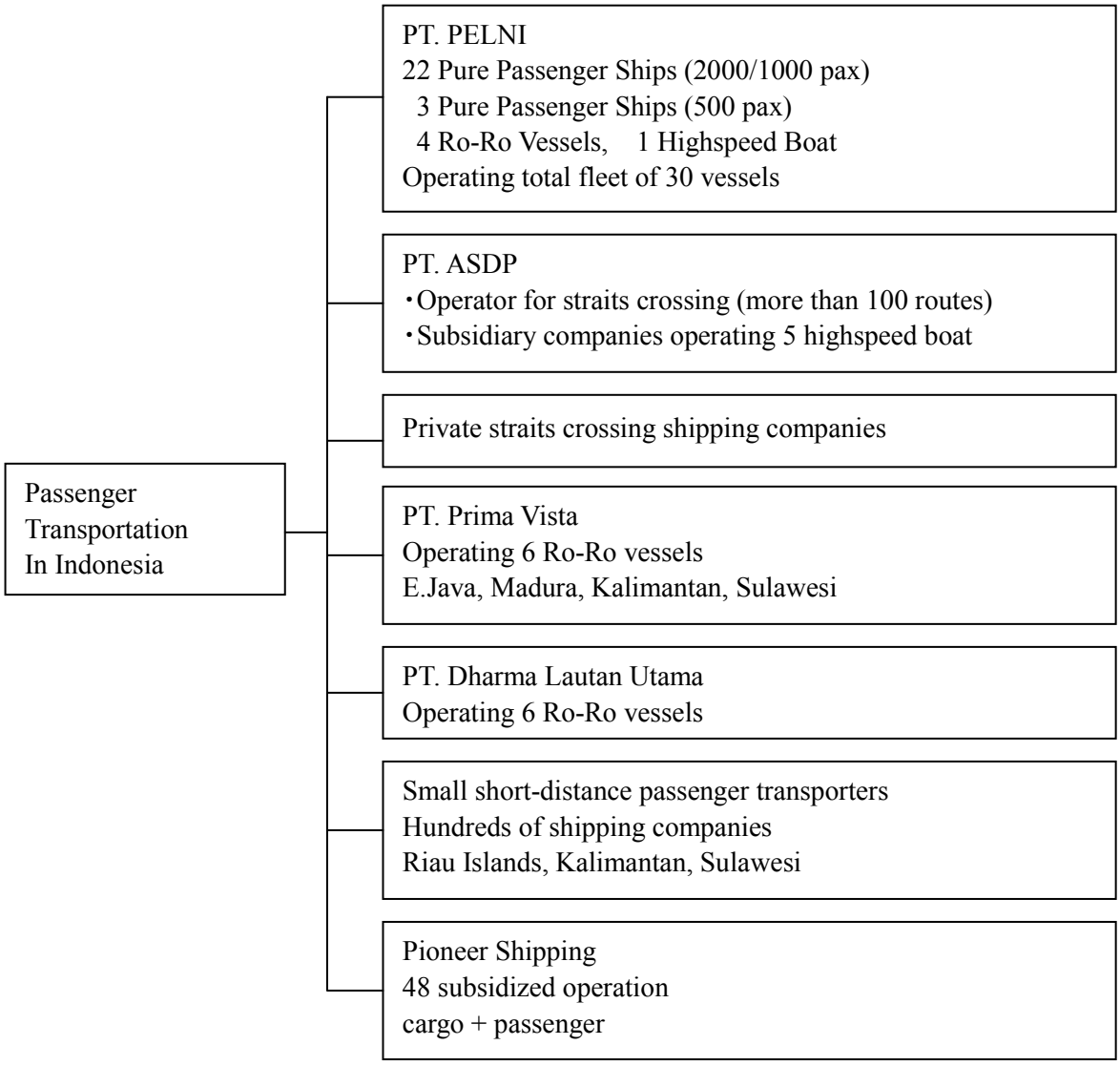
PT. Prima Vista and PT. Dharma Lautan Utama are subsidiaries of major private ferry operators. Due to licensing constraint, they are operating under separate names for passenger ship operation.

Both operators own and operate Ro-Ro Passenger ships, most of which are old Japanese ships. They are actively expanding their service in this new business field.

In addition, there are many small-scale passenger ship operators in various region of the country catering to everyday transportation and commuting needs of local people. Small size speedboat, with passenger seating capacity of two to three hundred persons, is the regular type of ship in this area.

Figure 4.3.2 PELNI Ship & Speedboats

Figure 4.3.3 Indonesian Passenger Shipping Category



4.3.3. Business Activities of Major Operators

(1) PT. PELNI

(a) Activities

The company has 25 passenger ships and 5 Ro-Ro ships, for a total of 30 passenger ships fleet. Out of 5 Ro-Ro ships, 3 ships are owned and 2 ships are bareboat chartered. Except for three 500 passenger type ships, the passenger ships are all German made and started operating since 1983.

Table 4.3.3 PELNI Fleet by Year of Start of Operation

Year built	Ships type			number of ships
	2000 pax	1000 pax	500 pax	
1983	KERINCI			1
1984	KAMBUNA, RINJANI			2
1985	UMSINI			1
1986		KELIMUTU, LAWIT		2
1987				0
1988	TIDAR			1
1989				0
1990		TATAMAILAU		1
1991		SIRIMAU, AWU		2
1992				0
1993	CIREMAI, DOBONSOLO			2
1994		LEUSER, BINAIYA BUKI RAYA		3
1995		TILONGKABILA	PANGRANGO	2
1996	BUKIT SUGUNTANG			1
1997	LAMBELU SINABUNG			2
1998	KELUD			1
1999			SANGIANG, WILIS	2
2000				0
2001	DORO LONDA			1
2002	NAGGAPULU			1
TOTAL	13	9	3	25

Source: STRAMINDO

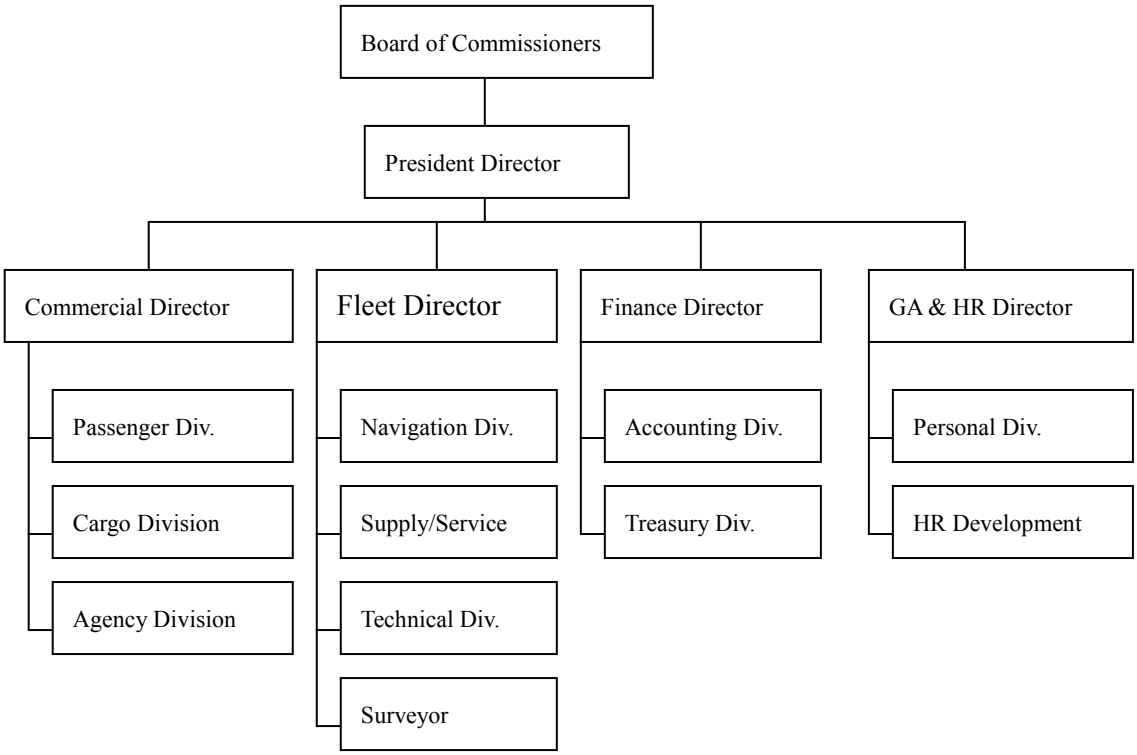
The company also has 22 cargo ships, but cargo ship operation is gradually terminated in line with the government's master plan relating to the future status of state-owned companies. In the master plan, it is stated that each state-owned shipping company should be specialized in one area, e.g. Jakarta Lloyd for container, PT. PELNI for passengers. The company also plans to write off 18 cargo ships in the near future.

The total number of passengers the company carried during the last year was around 7 million passengers. This however indicated a decreasing trend as compared with the previous years' figures (8,673 thousand in 1999 and 8,662 thousand in 2000). This decrease is mainly attributed to competition of airline service in certain route. In the past several years, new airlines entered the business and they compete among themselves by lowering their airfare. As a result of this price-cut war, airfare in certain route is getting closer to PELNI non-economy passenger fare. Thus, some non-economy passengers are shifting to air travel.

(b) Corporate Structure

The company has about 6,000 employees, about 4,000 of which are seafarer and 2,000 are shore personnel. They have 90 branch offices and 1 overseas office in Singapore.

Figure 4.3.4 Organization Structure in PELNI Head Office



(c) Service Route

PT. PELNI services a total of 91 Indonesian ports and has established 1,300 routes in their service. However, the counting of service routes are done in a peculiar way. For example, service route count for a ship calling from ports A, B, C, and D and then return back to port A in reverse order is as follows:

Route 1: A/B, Route 2: A/C, Route 3: A/D, Route 4: B/C, Route 5: B/D, Route 6: C/D, Route 7: D/C, Route 8: D/B, Route 9: D/A, Route 10: C/B, Route 11: C/A, Route 12: B/A.

Therefore, the ship is calling 7 ports in one round voyage (A, B, C, D, C, B, A) and covering 12 routes. It seems this route concept is necessary to determine the loss or

profit of each route based on the passenger fare earning and operation cost of each route. This concept is closely related with economy class fare tariff structure, which will be discussed in the succeeding topic.

(d) Tariff Structure

The government regulates PELNI's passenger tariff. Other private passenger lines are quoting their rate based on PELNI rate, but they have more flexibility in establishing their own rate as they only have non-economy class on their ship. Tariff rate is determined on a "passenger per mile" concept.

Passenger per mile is obtained using the following formula: Total cost (fixed cost + operation cost)/total service mile/(passenger capacity x 90%).

Tariff rate for certain route is obtained by multiplying "passenger per mile" (in Rupiah) and distance between two ports. For example, Jakarta/Surabaya rate is obtained as follows: Rp 334 (passenger per mile) x 400 (nautical mile between Jakarta/Surabaya) = Rp 133,600.

This tariff system was established in 2002 through the Minister of Communications' Decree No. KM 93/2002. There are however several problems in the tariff system, as follows:

- Appropriate adjustment of tariff based on cost increase. Since the tariff rate is not designed to be periodically reviewed, the rate is kept unchanged for longer period unless PELNI continuously demands the government for an increase to cover the actual cost, thus, eventually deviating from the cost recovery concept.

- Load factor of 90% in the formula. PELNI can cover actual cost only when all their ships are operated with 90% of passenger capacity and have very high load factor through the year at every route. As they cannot achieve such high performance every voyage, passenger per mile obtained through this formula is always a discounted rate placing PELNI at a disadvantage from the start.

PELNI uses 5 categories to classify the route depending on the profit level.

Table 4.3.4 PELNI Route Categories

Most Commercial Route	Total 14 routes Including Tg. Priok/Belawan vv, Tg. Priok/Batam
More Commercial Route	Total 33 routes Including Surabaya/Balikpapan, Surabaya/Kupang
Moderate Commercial Route	Total 36 routes Including Bitung/Jayapura, Balikpapan/Tg. Priok
Less Commercial Route	Total 18 routes Including Tarakan/Tg. Priok, Benoa/Ambon
Least Commercial Route	Total 69 routes Including Sorong/Ambon, Balikpapan/Makassar

(e) Ownership of the Fleet

All the PELNI ships are purchased by the government and legal ownership belongs to the government. The government in turn released the ships to PELNI as its equity. All the ships are depreciated in 25 years straight-line method.

(f) Function of DGSC

The placement plan of the fleet, including the new building plan, is basically controlled by DGSC. When the decision is made to build an additional ship, DGSC gives the guideline to PELNI as to which route the new ship is assigned. PELNI in turn makes the actual operation plan in accordance with this guideline. It tries to pursue the profit and healthy development of the organization, while DGSC sees PELNI as a sort of government arm to perform transportation needs of general public.

Recently, PELNI proposed re-routing of some of their ships to DGSC to improve total fleet performance, to which DGSC is giving due consideration from the viewpoint of overall interest including those of local government. Realizing that PT. PELNI's routes are mostly non-commercial routes and in order to keep the existence of PT. PELNI's services to those routes, the government/DGSC has provided operational subsidy to PT. PELNI since 2003. The allocated subsidy budget is given to PT. PELNI through annual contract to provide "Public Service Obligation (PSO)" for non-commercial routes which are regarded as obligatory assignment from the government.

(g) Passenger terminal

In most of the ports where PELNI ships make regular calling, facilities and equipments of passenger terminals are inadequate and need to be restored.

In major ports, such as Jakarta and Surabaya, the number of berths for passenger ship is limited and port authority has no flexibility to allocate additional berth for passenger ships during the peak season. The smooth and orderly flow of embarking and disembarking passenger at the terminal is an integral part of passenger ship operation.

However, certain aspects of complains from passengers are regarding poor facilities of passenger terminal, which is in fact already beyond their control.

Table 4.3.5 PELNI Fleet: Ships Particulars

	Ship Type		
Main Particulars	2000 Passenger	1000 Passenger	500 Passenger
1. GT	14,700	6,040	2,620
2. Net ton	5,360	1,810	790
3. Deadweight	3,680	1,420	400
4. LOA	146.50	99.80	74.00
5. Breadth	23.70	18.30	15.20
6. Draft	5.90	4.20	2.90
7. Main engine	17,400	4,350	3,260
8. Generators	4x800kw	4x420kw	4x340kw
9. Speed	20.0	14.0	14.0
10. Passengers	1,973	969	500

Table 4.3.6 PELNI Fleet: Assigned Route (2003)

Vessel Name	Assigned Route
1. KM. Kerinci	Tg.Priok-Surabaya-Parepare-Balikpapan-Pantoloan-Tolitoli-Trakan-Nunukan-Tolitoli-Pantoloan-Balikpapan-Parepare-Surabaya-Tg.Priok-Kijang-Dumai-Kijang-Tg.Priok
2. KM. Kambuna	Tg.Priok-Surabaya-Makassar-Balikpapan-Pantoloan-Tolitoli-Kwandang-Bitung-Ternate-Sorong-Ternate-Bitung-Kwandang-Tolitoli-Pantoloan-Balikpapan-Makassar-Surabaya-Tg.Priok
3. KM. Rinjani	Surabaya-Makassar-Baubau-Ambon-Banda-Tual-Fakfak-Sorong-Fakfak-Tual-Banda-Ambon-Baubau-Makassar-Surabaya-Kijang-Surabaya
4. KM. Umsini	Tg.Priok-Surabaya-Makassar-Balikpapan-Parepare-Nunukan-Parepare-Balikpapan-Mkassar-Surabaya-Tg.Priok-Kijang-Tg.Priok
5. KM. Tidar	Surabaya-Makassar-Balikpapan-Tarakan-Pantoloan-Makassar-Surabaya-Balikpapan-Surabaya-Parepare-Pantaloan-Nunukan-Tarakan-Balikpapan-Parepare-Surabaya
6. KM. Ciremai	Tg.Priok-Semarang-Makassar-Baubau-Banggai-Bitung-Ternate-Sorong-Manokwari-Biak-Jayapura-Biak-Manokwari-Sorong-Ternate-Bitung-Banggai-Baubau-Makassar-Tg.priok
7. KM. Dobonsolo	Tg.Priok-Surabaya-Denpasar-Kupang-Ambon-Sorong-Manokwari-Biak-Jayapura-Biak-Manokwari-Sorong-Ambon-Kupang-Denpasar-Surabaya-Tg.Priok
8. KM. Bukit Siguntang	Tg.Priok-Surabaya-Makassar-Baubau-Ambon-Banda-Tual-Dobo-Banda-Ambon-Baubau-Makassar-Surabaya-Tg.Priok-Kijang-Dumai-Kijang-Tg.Priok
9. KM. Lambelu	Tg.Priok-Surabaya-Makassar-Baubau-Ambon-Namlea-Bitung-Ternate-Namlea-Ambon-Baubau-Makassar-Surabaya-Tg.Priok-Padang-Nias-Sibolga-Padang-Tg.Priok
10. KM. Sinabung	Tg.Priok-Tg.Balai-Belawan-Batam-Tg.Priok-Tg.Balai-Belawan-Batam-Tg.Priok-Tg.Balai-Belawan-Batam-Belawan-Batam-Tg.Priok
11. KM. Kelud	Tg.Priok-Batam-Belawan-Tg.Balai-Tg.Priok-Batam-Belawan-Tg.Priok-Batam-Belawan-Tg.Balai-Tg.Priok-Batam-Tg.Priok
12. KM. Kelimutsu	A) Makassar-Baubau-Wanci-Amahai-Fakfak-TimikaMerauke-Tual -Timika-Fakfak-Amahai-Wanci-Makassar
	B) Surabaya-Benoa-Waingapu-Kupang-Saumlaki-Tual-Merauke-Saumlaki-Kupang-Waingapu-Benoa-Surabaya
13. KM. Lawit	Tg.Priok-Tg.Pandan-Pontianak-Tg.Priok-Pontianak-Semarang-Kumai-Surabaya-Kumai-Semarang-Pontianak-Tg.Pandan-Tg.Priok
14. KM. Tatamailau	A) Surabaya-Lembar-Badas-Makassar-Maumere-Kupang-Kalabahi-Surabaya-Batulicin-Parepare-Samarinda-Parepare-Batulicin-Surabaya
	B) Surabaya-Pontianak-Saumlaki-Tual-Ambon-Tual-Saumlaki-Kalabahi-Kupang-Maumere-Makassar-Badas-Lembar-Surabaya
15. KM. Sirimau	Tg.Priok-Semarang-Batulicin-Makassar-Labantuka-Kalabahi-Kupang-Larantuka-Makassar-Batulicin-Semarang-Tg.Priok-Muntok-Kijang-Kualaenok-Tg.Priok
16. KM. Awu	Makassar-Parepare-Tarakan-Nunukan-Makassar-Maumere-Larantuka-Kalabahi-Kupang-Ende-Waigapu-Lember-Denpasar-Waingapu-Ende-Kupang-Kalabahi-Maumere-Makassar
17. KM. Leuser	Tg.Priok-Tg.Pandan-Pontianak-Tg.Priok-Pontianak-Semarang-Sampit-Surabaya-Sampit-Semarang-Pontianak-Tg.Pandan-Tg.Priok
18. KM. Binaiya	Surabaya-Kumai-Semarang-Sampit-Surabaya-Batulicin-Parepare-Samarinda-Parepare-Batulicin-Surabaya-Sampit-Semarang-Kumai-Surabaya
19. KM. Bukit Raya	Tg.Priok-Blinyu-Kijan-Letung-Tarempa-Natuna-Midai-Serasan-Pontianak-Bawean-Surabaya-Sampit-Surabaya-Bawean-Pontianak-Serasan-Midai-Natsuna-Tarempa-Letung-Kijan-Blinyu-Tg.Priok

(Continued)

Vessel Name	Assigned Route
20. KM. Tilongkabila	Surabaya-Denpasar-Lembar-Bima-LabuanBajo-Makassar-Baubau-Raha-Kendari-Kolonedale-Luwuk-Gorontalo-Bitung-Tahuna-Bitung-Gorontalo-Luwuk-Kolonedale-Kendari-Raha-Makassar-Labuanbajo-Bima-Lembar-Benoa-Surabaya
21. KM. Pangrango	Tg.Priok-Blinyu-Tg.Priok-Blinyu-Tambelan-Kijan-Belawan-Malahayati-Belawan-Kijan-Tambelan-Blinyu-Tg.Priok
22. KM. Sangiang	Sorong-Bitung-Tahuna-Lirung-Tahuna-Bitung-Sorong-Fakfak-Kaimana-Tual-Timika-Agats-Merauke-Agats-Timika-Tual-Kaimana-Fakfak-Sorong
23. KM. Wilis	Surabaya-Bima-Waingapu-Ende-Sabu-Kupang-Sabu-Ende-Waipagu-Bima-Surabaya-Sampit-Semarang-Ketapang-Semarang-Sampit-Surabaya
24. KM. Fudi	Tg.Priok-Surabaya-Makassar-Balikpapan-Surabaya-Balikpapan-Makassar-Surabaya-Tg.Priok
25. KM. Ganda Dewata	Tg.Priok-Makassar-Surabaya-Makassar-Tg.Priok-Makassar-Surabaya-Tg.Priok
26. KM. Agoamas	Balikpapan-Makassar-Baubau-Makassar-Balikpapan-Parepare-Nunukan-Parepare-Nunukan-Parepare-Balikpapan
27. KM. Egon	Surabaya-Lembar-Surabaya-Banjarmasin-Semarang-Banjarmasin-Semarang-Banjarmasin-Surabaya-Lembar-Surabaya-Banjarmasin-Semarang-Banjarmasin-Surabaya
28. KFC. Jet Liner	Semarang-Banjarmasin-Semarang-Pontianak-Semarang-Banjarmasin-Semarang-Pontianak-Semarang
29. KM. Dorolonda	Tg.Priok-Surabaya-Makassar-Kupang-Ambon-Fakfak-Solong-Manokwari-Nabire-Serui-Jayapura-Serui-Nabire-Manokwari-Sorong-Ambon-Kupang-Makassar-surabaya-Tg.Priok
30. KM. Nggapulu	Tg.Priok-Surabaya-Balikpapan-Pantoloan-Bitung-Ternate-Sorong-Manokwari-Nabire-Serui-Biak-Jayapura-Biak-Serui-Nabire-Manokwari-Sorong-Ternate-Bitung-Pantoloan-Balikpapan-Surabaya-Tg.Priok

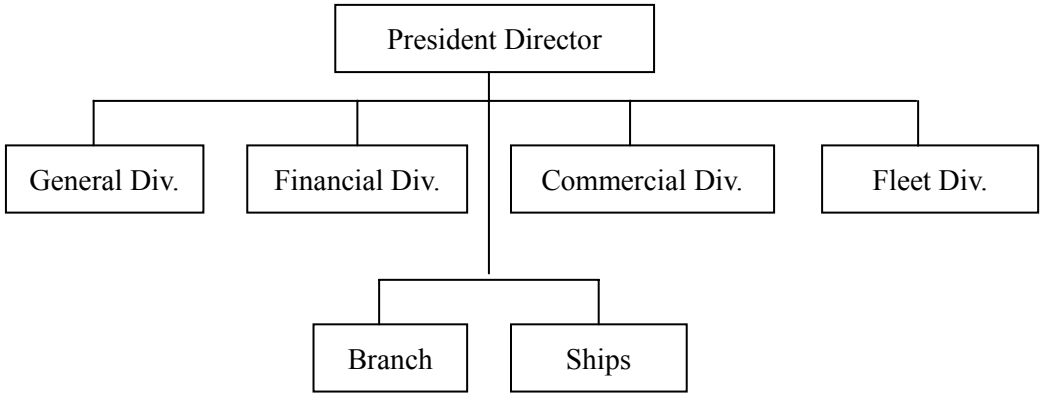
(2) PT. Prima Vista

(a) Company Profile

This is a private shipping company specializing in passenger transportation. Head office of the company is in Surabaya.

PT. Prima Vista was established in 1998 and started their commercial operation in November 10, 1999. The initial voyage was Surabaya/Banjarmain. The company was born as a result of business expansion of PT. Jembatan Madura, which provides short-distance ferry service at 8 different crossings using 25 ships. Thus, it can be said that PT. Prima Vista is a medium/long distance service arm of short distance player, PT. Jembatan Madura. Figure 4.3.5 illustrates the organization structure of PT. Prima Vista.

Figure 4.3.5 Organization Structure of PT. Prima Vista



President Director Each division is supervised by President Director.

General Division: General and administrative function which includes Human Resources Dept. and Legal and Insurance Affairs Dept.

Financial Division: Financial administration and accounting work which is carried out by Finance Dept. and Accounting Dept.

Commercial Division: Business-related function that includes Marketing and Sales Dept., and Operations Dept.

Fleet Division: Maintenance and control of the fleet, which includes Planning and Construction Dept., Machinery Dept., Electric Dept., Administration and Technical Library Dept., Procurement Dept. and Warehousing Dept.

As of 2001, total number of employee is about 1,200.

(b) Business Profile

The base ports of their service are Surabaya Semarang and Jakarta.

They have 9 regular passenger and Ro-Ro service, as follows:

Surabaya – Pontianak	*Semarang – Pontianak*	*Jakarta – Pontianak*
Surabaya – Kumai	*Semarang – Banjarmasin*	*Jakarta – Bintan – Medan*
Surabaya – Banjarmasin	*Surabaya – Balikpapan*	*Surabaya – Makassar*

Their trunk route is between Java and Kalimantan, with additional leg to Sulawesi and Sumatra. They clearly focus on Western part of Indonesia only, and have no intention to expand their service network to Eastern Indonesia.

Transit time Jakarta – Medan (the longest route) is 3 days one-way, thus 6 days for a round-trip voyage. Jakarta – Pontianak is 2 days.

Semarang route used to be covered by Surabaya – Pontianak line, but due to growing demand, they established a new independent line beginning second half of 2002.

It is interesting to note the following facts:

PT. ASDP had been serving Jakarta (Semarang) – Pontianak route with their 2 high-speed ferry but withdrew from this route in August 2002. The reasons for their withdrawal were 1) high operation cost and 2) lower load factor.

On the other hand, operating performance of the same route by PT. Prima Vista is relatively good, and now they have three separate services to Pontianak from three ports in Java. Load factor of each route is well exceeding 60 to 70 %.

PT. ASDP ships assigned to the route are high-speed ferry, which consumes high volume of fuel and have other expensive operation-related costs. Also, with the very small size of the ship, passengers could not bring with them sizable luggage that they usually bring on inter-island travel. While PT. Prima Vista ships, although old and with slower speed, are fairly spacious. Given such conditions, passengers naturally choose PT. Prima Vista.

(c) Fleet Profile

PT. Prima Vista owns the following 10 vessels listed in Table 4.3.7 which are all Indonesian flag, classed BKI and manned by Indonesian crew. All the ships are second-hand ferryboat purchased from Japanese owners.

Table 4.3.7 PT. Prima Vista fleet: capacity and assigned route

Vessel Name	GT	Passenger (vehicle)	Route
1. KM. Marina Nusantara	5,272	1,100 (+80cars)	Surabaya-Banjarmasin-Surabaya
2. KM. Titian Nusantara	5,532	2,100 (+90cars)	Surabaya-Makassar-Surabaya
3. KM. Senopati Nusantara	2,718	970 (+40cars)	Surabaya-Pontianak-Surabaya
4. KM. Madini Nusantara	4,300	1,000 (+52cars)	Surabaya-Balikpapan-Surabaya
5. KM. Mabuhai Nusantara	5,035	1,250 (-)	Tg.Priok-Pontianak-Tg.Priok
6. KM. Mandiri Nusantara	8,257	2,500 (+150cars)	Tg.Priok-Kijang-Belawan-Kijang-Tg.Priok
7. KM Marisa Nusantara	Unknown	1,500 (+37cars)	*(Unknown)*
8. KM Parina Nusantara	Unknown	1,000 (+32cars)	*(Unknown)*
9. KM Safira Nusantara	Unknown	1,500 (+64cars)	*(Unknown)*
10. KM Mentari Nusantara	Unknown	1,000 (+50cars)	*(Unknown)*
TOTAL	31,114	13,920 (+595cars)	

Source: DGSC

All are Japanese made ships which are mostly built around 1990 (10 year plus present age). The ships were substantially restored after they were brought from Japan in order to meet the needs of Indonesian trade.

For periodical docking of their fleet, PT Prima Vista usually uses three shipyards in Java Island. There are no ships that are being sent outside Indonesia for docking.

(3) PT. Dharma Lautan Utama

The main business of this company is ferry service for short distance route, such as Ujung/Kamal and Ketapang/Gilimauk. PT. Dharma Lautan Utama is one of the major private ferry operators and they own and operate 24 ships, mostly small ferryboat with GT of less than 500. In addition to the ferry service, they are operating passenger ship in several routes.

The company has six Ro-Ro passenger ships for this purpose, most of which are old Japanese Ro-Ro ferries ("Dharma Kencana" ex "Sanuki Maru", "Kumala" ex "Otowa Maru"). Those ships have approximately 1,000 passenger capacity together with 50 to 80 vehicle stowage facility. With this fleet, the company is making regular passenger and Ro-Ro service in the Java sea corridor. In addition, PT. Dharma Lautan Ulama is based in Surabaya and Semarang. Services cover the Kalimantan ports like Pontianak, Kumai, Banjarmasin, and Balikpapan.

Table 4.3.8 PT. Dharma Lautan Utama Fleet: Capacity and Assigned Route

Vessel Name	GT	Passenger (vehicle)	Route
1. KM. Dharma Kencana	3,611	1,100 (+86cars)	Semarang-Kumai-Semarang Semarang-Pontianak-Semarang
2. KM. Kumala	3,363	1,100 (+80cars)	Surabaya-Bawean I.-Surabaya
3. KM. Kirana I	2,508	1,010 (+70cars)	Surabaya-Balikpapan-Surabaya Surabaya- Batulicin -Balikpapan - Batulicin -Surabaya
4. KM. Kirana II	4,043	1,024 (+80cars)	Semarang-Pontianak-Semarang
5. KM. Dharma Kencana I	3,007	1,000 (+50cars)	Semarang-Kumai-Semarang Semarang-Pontianak-Semarang
6. KM. Mutiara	4,814	1,000 (+50cars)	Semarang-Banjarmasin-Semarang Surabaya-Batulicin-Balikpapan - Batulicin -Surabaya
TOTAL	21,346	6,234 +416cars)	

Source: DGSC

(4) PT. ASDP

This is the largest ferry operator in Indonesia. PT. ASDP is a state-owned company directly controlled by Directorate General of Land Transportation (DGLT) to execute national ferry operation in line with government's policy and direction.

Its fleet own and operate 87 ferryboats and 5 high-speed boats. This fleet represents well

over 50% of total ferryboat capacity of the country and demonstrates overwhelming presence of PT. ASDP in the ferry area.

Besides the ferry operation, the company participates non-ferry, pure passenger type operation in some limited routes. Five units of high-speed boat are placed for this operation.

The routes are Surabaya/Balikpapan and Sunda Kelapa/Bangka.

The five ships are sister ships of same design. They were built at Fr. Luerssen Werft shipyard in Bremen, Germany. The ship GT is 1,450 and passenger capacity is 925. The hull, made of aluminum alloy and four units of MTU water, is jet propulsion giving the ship 38knots speed. But at the same time, the ship consumes hefty amount of fuel.

PT. ASDP is seeking new routes of passenger service, connecting Indonesian local ports with neighboring countries such as Malaysia and East Timor.

Table 4.3.9 PT. ASDP Fleet: Capacity and Assigned Route

Vessel Name	GT	Passenger	Route
1. KPC. Ambulu	1,505	900	Surabaya-Batulicin-Balikpapan-Batulicin-Surabaya
2. KPC. Mahakam	1,505	900	Sunda Kelapa-Bangka-Sunda Kelapa
3. KPC. Serayu	1,505	900	Surabaya-Batulicin-Balikpapan-Batulicin-Surabaya
4. KPC. Barito	1,505	900	Surabaya-Batulicin-Balikpapan-Batulicin-Surabaya
5. KPC. Cisadane	1,505	900	Sunda Kelapa-Bangka-Sunda Kelapa
TOTAL	7,525	4,500	

Source: DGSC

4.3.4. Business Activities of Other Small Operators

In addition to major passenger ship operators, there are many small operators all over the country. They are mainly serving in short distance routes between islands or along the coast. Total numbers of ships owned and operated by the small short distance operators are 510 ships. Most of the ships are speedboats of less than 500 GT.

Following is list of companies that are active in this category. (Source: DGSC)

Table 4.3.10 Small Passenger Operators

Company	Vessel	GT	Pax	Route
PT. Mabua Intan Express	KM Mabua Express	477	248	Benoa - Lembar
PT. Kapuas Ferry Permai	KMP Kawan Express I	288	320	Pontianak - Sunda Kelapa
(2 shisp 436GT)	KMP Express Mega	148	218	Pontianak - Ketapang
PT. Sumber Prima Ekabahari	KM Merpati Express	92		Pontianak - Ketapang
	KM Poly 1	96		Pontianak - Ketapang
PT. Bunga Teratai	KM Teratai	246	180	Samarida – Parepare
(6 ships 2,614 GT)	KM Teratai A	273	200	Samarida – Parepare
	KM Teratai Putih	525	434	Samarida – Parepare
	KM Teratai Putih A	288	207	Samarida – Parepare
	KM Teratai Prima	747	500	Samarida – Parepare
	KM Teratai Prima 1	535	383	Samarida – Parepare
PT. Telaga Citra Abadi	KM Telaga Express	326	280	Jakarta - Tg. Pinang - Batam
PT. Srikandi Bahtera Nusantara	KM Srikandi 99	154	235	Surabaya - Banjarmasin
PT. Sumber Sumatra Raya	KM Sumber Bangka 6	280	400	Pkl. Balam - Muntok/ Tg. Pandan
4 ships 849GT)	KM Sumber Bangka 7	292	400	Pkl. Balam - Muntok/ Tg. Pandan
	KM Sumber Bangka II	140	192	Pkl. Balam - Muntok/ Tg. Pandan
	KM Sumber Bangka III	137	192	Pkl. Balam - Muntok/ Tg. Pandan
PT. Sakti Inti Makmur	KM Express Bahari 2	54		Palembang - Muntok
(6 ships 1,134GT)	KM Express Bahari 3	90		Palembang - Muntok
	KM Express Bahari 5	98		Palembang - Muntok
	KM Express Bahari 8	172		Palembang - Muntok
	KM Express Bahari 11	359		Semarang - Kumai
	KM Express Bahari 12	361		Semarang - Kumai
PT. Haluan Segara Lines	KM Express Bahari	29		Palembang - Muntok
PT. Barelang Surya Gemilang	KM Surya Gemilang Jaya 1	79	170	Sekupang - Pekanbaru
(10 ships 1,530 GT)	KM Surya Gemilang Jaya 2	79	170	Sekupang - Pekanbaru
	KM Kenangan Fitri 1	135	315	Sekupang - Pekanbaru
	KM Surya Gemilang Jaya 7	210	320	Sekupang - Kaula Tungkal
	KM Surya Gemilang Jaya 8	144	204	Sekupang - Kaula Tungkal
	KM Surya Gemilang Jaya 10	196	320	Sekupang - Tanjung Buton
	KM Surya Gemilang Jaya 12	170	327	Sekupang - Tanjung Buton
	KM Kenangan Fitri 2	145	300	Sekupang - Pekanbaru
	KM Kenangan Fitri 5	223	416	Sekupang - Palembang
	KM Surya Gemilang Jaya 19	149	202	Sekupang - Kaula Tungkal
PT. Marintama Gemanusa	KM Marina Batam 2	60	241	Batam - Tg. Batu – S. Guntung
(3 ships 206GT)	KM Marina Baru 2C	66	90	Tg. Batu - Batam
	KM Marina Express 1	80	275	Tg. B. Karimun - Tg. Batu
PT. Liba Marindo	KM Sentosa 1	54		Tg. Pinang - Tl. Punggur
(9 ships 605GT)	KM Sentosa 2	54		Tg. Pinang - Tl. Punggur
	KM Sentosa 3	46		Tg. Pinang - Tl. Punggur
	KM Sentosa 5	48		Tg. Pinang - Tl. Punggur
	KM Sentosa 9	55		Tg. Pinang - Tl. Punggur
	KM Sentosa 11	57		Tg. Pinang - Tl. Punggur
	KM Sentosa 15	101		Tg. Pinang - Tl. Punggur
	KM Sentosa 88	101		Tg. Pinang - Tl. Punggur
	KM Sentosa 89	89		Tg. Pinang - Tl. Punggur
PT. Baruna Jaya	KM Baruna Line	63		Tg. Pinang - Tl. Punggur
(4 ships 305GT)	KM Baruna Perkasa	95		Tg. Pinang - Tl. Punggur
	KM Baruna Lagoi	59		Tg. Pinang - Tl. Punggur
	KM Dumai Express 11	88		Tg. Pinang - Tl. Punggur

Source: DGSC

4.3.5. Existing Problems

Due to Indonesian government's recent deregulation policy of airborne traffic, many new airlines joined the domestic market. However, the market share for domestic traveler is not growing or is rather limited due to the overall economic situation.

With the excess in supply but limited demand for airborne traffic, natural recourse of airlines is to start aggressive marketing strategies to lure passengers, most common of which is the fare price cut. This so called price cut war among airlines has resulted to low and very competitive fare levels.

However, this competition did not only remain within the airline industry but gradually started influencing the passenger shipping industry. In particular, lower airfare rates have been directly competing with the passenger shipping business in many routes.

During the initial stages of airfare price cuts, only upper class passengers of the ship were attracted with the lower airfares. However, with the airfare rates becoming so low in certain routes, even the economy class passengers of the ship can now afford air travel.

For example, current one way economy airfare (Lion Air) for Jakarta/Manado is Rp. 533,000 while prevailing one way economy class fare of passenger ship (PT. PELNI) for the same route is Rp.561,500 (based on the research May, 2003). Thus there is now a very narrow difference of Rp. 28,500 between air and sea fares, with the airfare even being more economical that passenger ship fare in this particular case.

The current situation of airfare war has rather become excessive and thus the necessity for government authority intervention to stabilize the situation. However the trend of airline deregulation will be accelerated further to make air travel less expensive and a more popular means of transportation for the general public.

Sea travel naturally has many advantages in comparison with air travel such as easier access to the embarking point, unlimited capacity for accompanied baggage and comfortable accommodation during travel. Passenger ship service can be extended to any place where an adequate port facility is available, while airline service needs airport facility and various supporting units to make the service workable. Air travel only becomes a necessity therefore at this time to areas where sea travel cannot compete with air.

However, together with the socio-economic development of the country, it may become inevitable for people to seek for a faster means of transportation. Therefore, in determining the future trend of sea travelers in the medium to long term period of 10 to 20 years, it is very important to carefully consider the possibility of modal shift to air travel.

4.4. Special Shipping

4.4.1. Definition

The concept of Special Shipping in Indonesian domestic shipping is a little different from that of Industry carriers in other countries wherein the latter only refers to industrial carriers while the former refers to a broader scope of service. Special shipping, as aptly defined in the next paragraph, is also known as Special Sea Transportation on regulations.

"Special Sea Transportation is a sea transportation activity that is conducted particularly to

serve own business in order to support the main business and does not serve other parties' business."(BABI Ketentuan Umum Pasal1-4, Keputusan Menteri Perhubungan Nomor: KM33 Tahun 2001)

The detail of the definitions is described in Article 12 of KM33 Tahun2001. They are as follows:

- Management of special sea transportation activity is conducted a) to serve own business in support of the main business activity, b) not to serve other parties' business and c) not to transport general cargos.
- To serve own business by transporting a) raw materials, b) products and c) production equipments for own business' use.
- The main business activity may cover Industry, Forestry, Tourism, Mining, Fishing, Salvage, and Underwater Work Dredging sectors as well as research, education, training, and other social activities.

Those who conduct special shipping are not allowed to carry cargo/personal stuff and general cargo. However, under certain conditions and with permission from the Governor, they may be allowed to do so under special circumstances such as unavailability of ships or ship service from the shipping company.

Special shipping is conducted by using Indonesian flag vessel in principle. However, in case of shortage of number of vessels and lack of vessel capacity, foreign flag vessels are sometimes utilized by the operator of special shipping.

4.4.2. Shipping Company and Fleet

Special Shipping is growing both in terms of number of operators and fleet size. The number of special shipping companies increased to 62 during the period 1998-2001 with 422 vessels added to the industry during the same period.

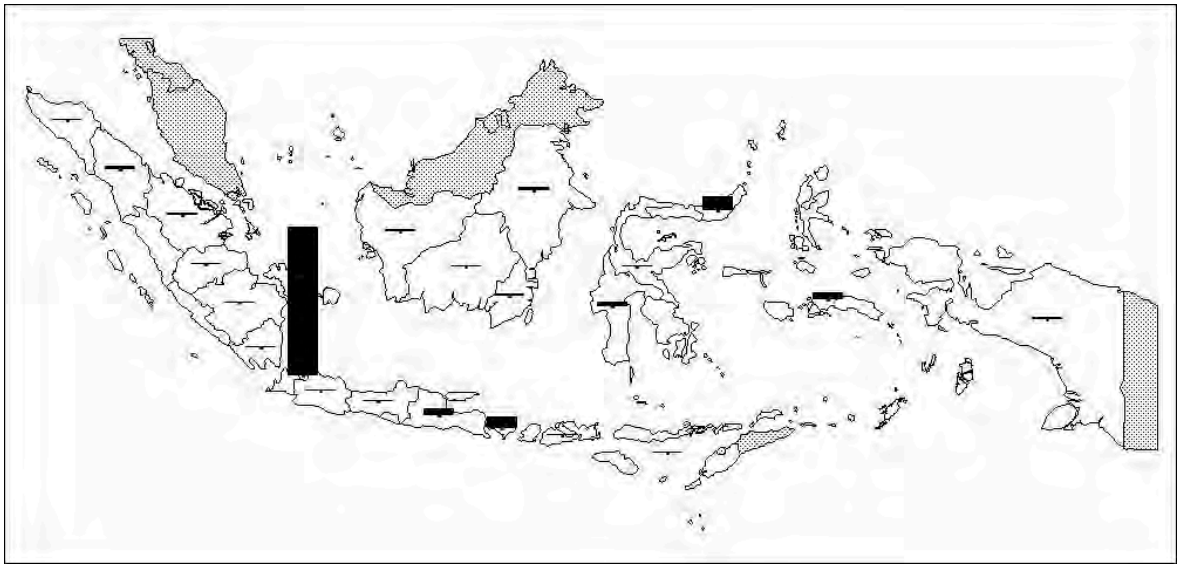
As for geographical distribution, the most concentrated province is Jakarta (356 companies in 2001), followed by Sulawesi Utara (33 companies), Bali (28 companies), Jawa Timur (18 companies), Maluku (17 companies), and Sulawesi Selatan (11 companies), with other provinces only having less than ten operators. Except for the highly concentrated Jakarta, other popular provinces where there are special shipping companies commonly have marine tourism destinations. This shows us that tourism and fishing are the industries being catered by special shipping.

Table 4.4.1 Special Shipping Companies and Their Total Fleet

Year	No. of Companies	Fleet			
		Unit	DWT	GT	HP
1998	462	1,625	1,401,827	111,114	48,881
1999	494	1,916	1,401,827	182,625	48,881
2000	509	2,020	1,401,827	200,588	48,881
2001	524	2,047	1,401,827	204,579	48,881

Source: DGSC

Figure 4.4.1 Distribution of Special Shipping Companies



4.4.3. Major Special Shipping Services

This section analyzes the special shipping services for major commodities such as fuel oil, cement, and fertilizer.

(1) Fuel Oil

Pertamina Shipping, a special shipping company which is a subsidiary of Pertamina, owns and operates its 31 tankers (662,043 DWT) in addition to its 104 chartered tankers. It also has a trained and experienced crew force of 897 persons with international certificates in organizing sea transportation for crude oil, fuel and non-fuel to fulfill domestic requirements.

Pertamina Shipping holds a time charter system with foreign and national tanker operators, ranging from one to three years for a charter period. It also acts as a Shipping Agency.

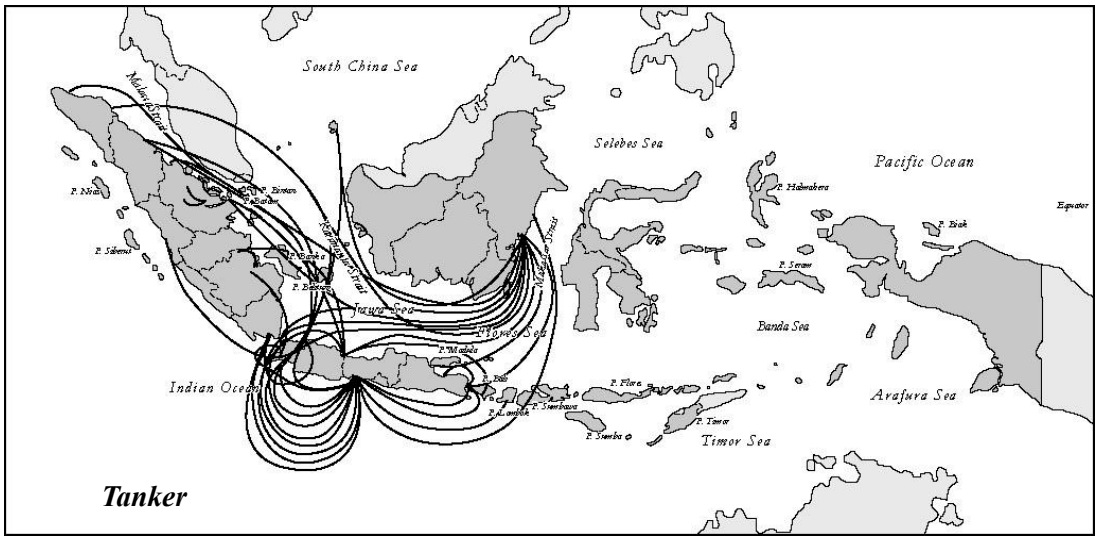
Table 4.4.2 Composition of Vessel Flag

Business Type	National Flag	Foreign Flag	Total
Own	23	8	31
Chartered	31	77	108
Total	54	85	139
Ratio	39%	61%	100%

Source: Pertamina Shipping web site: www.pertaminashipping.com

Pertamina Shipping has four shipping network patterns by product. They are crude oil, black oil, white oil, and non-fuel products. Figure 4.4.2 shows crude oil haulage pattern where oil fields and refinery plants are connected by sea.

Figure 4.4.2 Map of Domestic Fuel Transportation by National Flag Vessel Based on Origin and Destination Port for Crude Oil Cargo



(2) Cement

Government intends to control domestic distribution of three strategic products, i.e., cement, fertilizer and rice. For this purpose, Government organized BAPEBTI with representatives from among DGSC, INSA and manufacturers/producers. BAPEBTI designates 17 loading ports for smooth distribution of the three commodities. As for cement dispatchment, six ports are designated, as follows: Biringkasi, Cirebon, Gresik, Tarjun, Tanjung Priok, and Teluk Bayur.

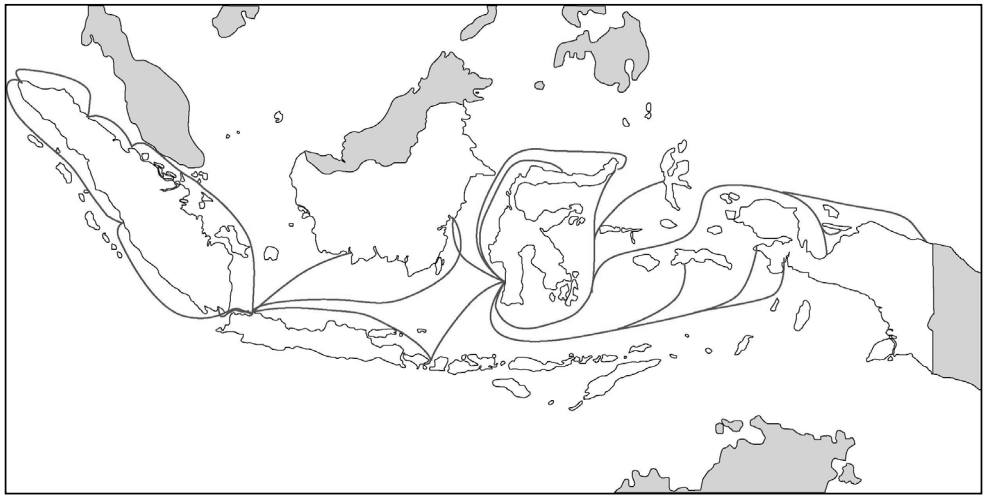
There are three cement producers in Indonesia: Semen TONASA, Indocement Tunggal Perkasa Tbk (ITP) and Semen Padang. All three have shipping functions, with Semen TONASA listed as a special shipping company and others are licensed as general shipping companies. But all are actually industrial carrier.

Table 4.4.3 shows cement volume by major three companies and by six loading ports. In particular, Semen TONASA's shipping pattern is illustrated in Figure 4.4.3. The study conducted a case study of industrial carrier ITP, results of which are in Appendix 4.1.

Table 4.4.3 Cement Supply by Company and by Loading Port, 2001

No.	Loading port	Company			Total
		ITP	Padang	Tonasa	
1	Biringkasi	0	0	476,450	476,450
2	Cirebon	15,900	0	0	15,900
3	Gresik	6,550	0	0	6,550
4	Tarjun	305,250	0	0	305,250
5	Tanjun Priok	341,500	0	0	341,500
6	Teluk Bayur	0	1,729,470	0	1,729,470
	Total	669,200	1,729,470	476,450	2,875,120

Figure 4.4.3 Route Map for Cement Transportation (Semen TONASA)

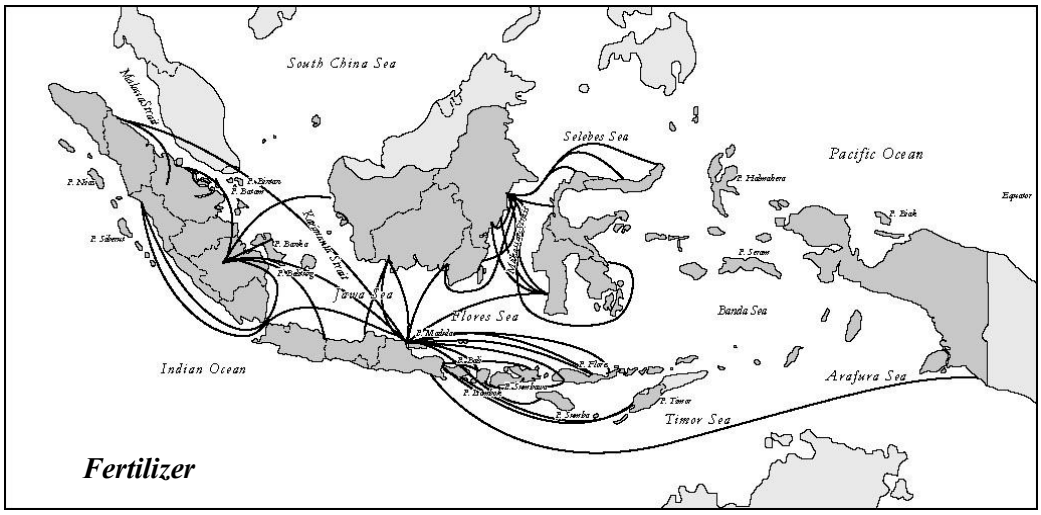


(3) Fertilizer

PT. Pupuk Sriwidjaja (PUSRI) was established as a state-owned company in 1959. At present, they have many subsidiary companies and related companies in their group. Major companies are PT. Pupuk Kalimantan Timur (PT. PKT), PT. Pupuk Petrokimia Gresik (PT. Petrogres), PT. Pupuk Iskandar Muda (PT.PIM), among others. PUSRI has fertilizer manufacturing in South Sumatera and serves the west side of Indonesia maket. PT. PKT has fertilizer manufacturing in East Kalimantan and serves the east side of Indonesa. PT. Petrogres has fertilizer manufacturing in East Jawa and serves Jawa Island, Bali and Lombok market. PT. PIM has fertilizer manufacturing in Ache and serves Nangroe Aceh Darussalam and north Sumatera.

Domestic market distribution of these four fertlizer companies is handled by PT. PUSRI as a holding company of all fertilizer companies in Indonesia. Aside from being a fertilizer company, PT. PUSRI is also a shipping company. It has 8 conventional vessels and each vessel is able to carry 8,500 tons of fertilizer. The four fertilizer manufacturers also use other general shipping companies broadly and traditional shipping companies only for short-distance services. Major fertilizer distribution routes are illustrated in Figure 4.4.4.

Figure 4.4.4 Major Fertilizer Shipping Network, 2001



4.5. Pioneer Shipping

4.5.1. Activities of Pioneer Shipping

(1) Background

(a) Definition of Pioneer Shipping

Pioneer shipping has been in operation since 1974 with the main objective of providing access to remote regions, especially for the purpose of transporting the most essential goods and stimulating regional growth. Operation of pioneer services is subsidized by the central government. This subsidy is funded by the APBN[1] (National Government Budget) through the Project for Developing Pioneer Shipping Services and is allocated each fiscal year through the DIP (Project Specification Form). Pioneer shipping has been operated under the government policy to prevent further widening of regional gaps, to boost economic growth and to enhance territorial integrity of the nation.

According to Government Regulation No. 82 (1999) for Transportation on Waters and the regulation of Ministry of Communications No. KM 33 (2001) on the implementation and undertaking activities of sea transportation, pioneer shipping is defined as a sea transportation connecting regional cities and remote regions which are sustainable and profitable.

Remote regions are characterized as follows:

1. Regions which cannot be served by shipping companies that operate their vessels on the basis of economic feasibility.
2. Implementation of sea transportation sailing in the region is economically unprofitable.
3. The region is poor, left-behind and has a low income per capita.
4. Other modes of transportation are inadequate.
5. There is no sea transportation operated by national sea transportation companies on a fixed and regular basis.

(b) System of Subsidy Decision

Pioneer shipping is implemented by the central government through subsidies to cover ship operating costs of shipping companies that are engaged in the provision of pioneer shipping services. The amount of the subsidy is determined by computing for the difference between ship operating costs and income from freight for transporting passengers and cargo (Table 4.5.1).

Gross incomes are determined by the central government, through the Directorate General of Sea Communication (DGSC), based on proposed income by pioneer shipping companies. Non-fixed expenses and fixed expenses are calculated on the basis of past achievements. In addition, total amount of subsidy is the difference between gross income and total expenses including profits (10% of total expenses) as

[1] APBN: Anggaran Pendapatan Belanja Negara, National Government Budget.

listed in Table 4.5.1.

Such arrangement enables the pioneer shipping companies to receive subsidies regardless of their service performance, thus these companies need not exert too much managerial effort to improve shipping operations.

Table 4.5.1 Ship Operation Balance Sheet

A.	Income
	1) Income from Cargo
	2) Income from Passenger
B.	Non-fixed Expense
	1) Fuel Cost
	2) Lubricant Cost
	3) Drinking Water (for Passenger)
	4) Per-diem
	5) Cargo Insurance (2% of "Income from Cargo")
	6) Marketing (2% of "Total Income")
	7) Operation Cost
	8) Port Charge
	9) Overhead (10% of "Fixed Expense")
C.	Fixed Expense
	1) Salary & Bonus
	2) Health & Welfare
	3) Food Expense
	4) Drinking Water
	5) Cleaning for Crew
	6) Maintenance
	7) Insurance (3% of Vessel Cost: Rp. 1,000,000/DWT))
	8) Depreciation (5% of Vessel Cost : Rp. 1,000,000/DWT))
	9) Others
D.	Profit (10% of B+C)
E.	Total Expenses (B+C+D)
F.	Subsidy per Year (Total Expenses - Income)

Source: Contract Report of Pioneer Shipping Operation, DGSC

(2) Pioneer Shipping Services

(a) Pioneer Shipping Routes

The DGSC and other relevant agencies, the head of the Regional Office of Communications, the Port Administrator, and the Chief of other related regional government agencies, implement improvement measures and adjustments to the pioneer shipping services and routes with Top-Down and Bottom-Up approaches every year.

A council organized by the DGSC discusses and evaluates the service routes and pioneer ship requirements proposed by the regional office of communications. DGSC in turn decides on the improvement or introduction of a service route based on the following factors:

1) Capacity of Government Budget: The capacity of government budget for the

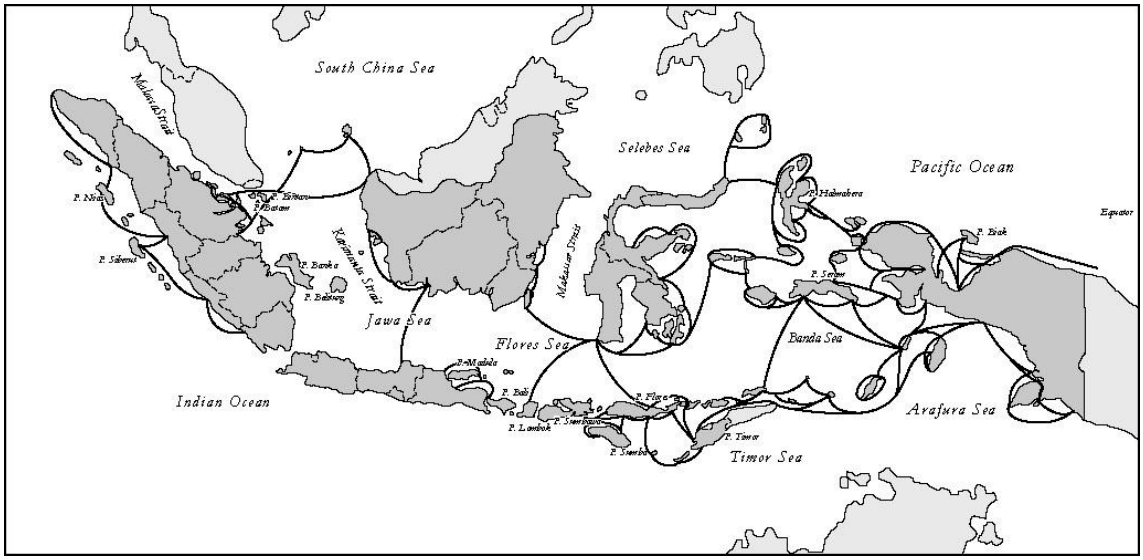
pioneer shipping is limited. Thus, amount of subsidy must be adjusted depending on the demand of remote regions.

2) Economic Aspect: The pioneer shipping routes must be connected to a remote and undeveloped region that has an economic potential or a region that has an undeveloped transport system.

3) Defense and Security Aspect: The functions and roles of pioneer shipping are not only to bring development assistance to the remote and undeveloped regions but also to maintain and secure their territorial integrity.

4) System: The pioneer shipping is a sub-system of the national sea transportation system and is interlinked with other modes of transportation, particularly with land transportation.

Figure 4.5.1 Pioneer Shipping Routes in 2002 and 2003



Year 2002 (Above) / Year 2003 (Below)

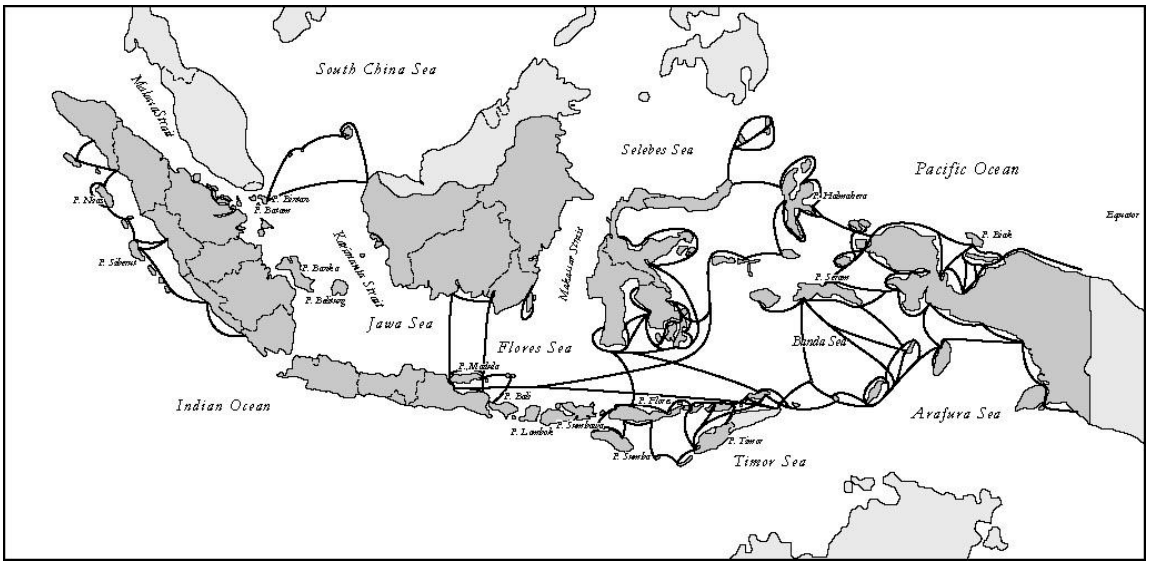


Table 4.5.2 Route Lists of Pioneer Shipping (2002)

BASE	ROUTE	ROUTE NETWORK	TOTAL DISTANCE IN MILE	SIZE TYPE/ SHIP TYPE *)	SAILING DAYS 1 ROUND VOYAGE
SABANG	R-1	SABANG - SIBOLGA	1,116	750 DWT	18 DAYS
	R-2	SABANG - BELAWAN PP	636	500 DWT	13 DAYS
TELUK BAYUR	R-3	TLK BAYUR - TAPAKTUAN PP	1,386	750 DWT	18 DAYS
	R-4	TLK. BAYUR - BENGKULU PP	1,170	750 DWT	16 DAYS
BENGKULU	R-5	BENGKULU - BENGKULU	1,048	750 DWT	13 DAYS
TG. PINANG	R-6	TG. PINANG - TG. PINANG	969	750 DWT	12 DAYS
SINTETE	R-7	SINTETE - SINTETE	969	750 DWT	12 DAYS
	R-8	SINTETE - SINTETE	1,510	500 DWT	13 DAYS
SURABAYA	R-9	SURABAYA - TG. WANGI PP	1,050	500 DWT	10 DAYS
TG. WANGI	R-10	TG.WANGI - SURABAYA PP	1,050	500 DWT	10 DAYS
BITUNG	R-11	BITUNG - BITUNG	1,196	750 DWT	14 DAYS
	R-12	BITUNG - BITUNG	1,280	750 DWT	14 DAYS
PAGIMANA	R-13	PAGIMANA - PARIGI PP	2,084	750 DWT	21 DAYS
		PAGIMANA - BIRINGKASI PP			
MAKASSAR	R-14	MAKASSAR - KUPANG PP	1,722	500 DWT	18 DAYS
	R-15	MAKASSAR - PAMANTAUANG PP	1,660	500 DWT	20 DAYS
		MAKASSAR - CALABAHI/BADAS PP			
KENDARI	R-16	KENDARI - KENDARI	1,660	500 DWT	22 DAYS
	R-17	KENDARI - KENDARI	1,640	500 DWT	20 DAYS
KUPANG	R-18	KUPANG - KUPANG	1,262	500 DWT	14 DAYS
	R-19	KUPANG - KUPANG	813	500 DWT	12 DAYS
	R-20	KUPANG - KUPANG	762	500 DWT	12 DAYS
	R-21	KUPANG - KUPANG	886	500 DWT	12 DAYS
AMBON	R-22	AMBON - AMBON	1,817	750 DWT	21 DAYS
	R-23	AMBON - LEKSU LA PP	1,914	750 DWT	21 DAYS
		AMBON - SORONG PP			
	R-24	AMBON - KUPANG PP	2,348	750 DWT	23 DAYS
	R-25	AMBON - TUAL PP	2,472	750 DWT	24 DAYS
TUAL	R-26	TUAL - BATU GOYANG PP	2,840	750 DWT	25 DAYS
		TUAL - BIRINGKASI PP			
	R-27	TUAL - SURABAYA PP	3,092	750 DWT	33 DAYS
SAUMLAKI	R-28	SAUMLAKI - AMBON PP	3,212	750 DWT	30 DAYS
		SAUMLAKI - SURABAYA PP			
TERNATE	R-29	TERNATE - SORONG PP	1,398	500 DWT	15 DAYS
	R-30	TERNATE - SORONG PP	1,682	500 DWT	20 DAYS
		TERNATE - BITUNG PP			
	R-31	TERNATE - AMBON PP	1,750	500 DWT	14 DAYS
JAYAPURA	R-32	JAYAPURA - SORONG PP	2,120	750 DWT	19 DAYS
	R-33	JAYAPURA - TRIMURIS PP	578	200 DWT	12 DAYS
	R-34	JAYAPURA - SORONG PP	2,102	750 DWT	19 DAYS
	R-35	JAYAPURA - SERUI PP	744	350 DWT	11 DAYS
BIAK	R-36	BIAK - BIAK	812	350 DWT	10 DAYS
	R-37	BIAK - MANOKWARI PP	988	350 DWT	13 DAYS
	R-38	BIAK - JAYAPURA PP	954	350 DWT	12 DAYS
SORONG	R-39	SORONG - SORONG	804	350 DWT	14 DAYS
	R-40	SORONG - SORONG	1,233	350 DWT	16 DAYS
	R-41	SORONG - SORONG	1,322	350 DWT	15 DAYS
	R-42	SORONG - POMAKO PP	1,758	750 DWT	20 DAYS
	R-43	SORONG - BADE PP	2,324	750 DWT	23 DAYS
MERAUKE	R-44	MERAUKE - SENGGO PP	1,304	350 DWT	15 DAYS
	R-45	MERAUKE - MERAUKE	1,286	350 DWT	14 DAYS
	R-46	MERAUKE - TANAH MERAH PP	1,943	200 DWT	23 DAYS
	R-47	MERAUKE - MERAUKE	1,326	350 DWT	14 DAYS
	R-48	MERAUKE - SORONG PP	3,460	750 DWT	30 DAYS
KOTA BARU	R-49	KOTA BARU - KOTA BARU PP	446	500 DWT	8 DAYS

Source: DGSC

Table 4.5.3 Route Lists of Pioneer Shipping (2003)

BASE	ROUTE	ROUTE NETWORK	TOTAL DISTANCE IN MILE	SIZE TYPE	SAILING DAYS 1 ROUND VOYAGE
TELUK BAYUR	R-1	TLK BAYUR - TAPAKTUAN PP	1,386	832 DWT	18 DAYS
	R-2	TLK. BAYUR - BENGKULU PP	1,170	500 DWT	16 DAYS
BENGKULU	R-3	BENGKULU - BENGKULU	1,048	750 DWT	13 DAYS
TG. PINANG	R-4	TG. PINANG - TG. PINANG	969	750 DWT	12 DAYS
SINTETE	R-5	SINTETE - SINTETE	969	750 DWT	12 DAYS
SURABAYA	R-6	SURABAYA - TG. WANGI PP	1,050	750 DWT	10 DAYS
TG. WANGI	R-7	TG.WANGI - SURABAYA PP	1,050	600 DWT	10 DAYS
BITUNG	R-8	BITUNG - BITUNG	1,314	750 DWT	14 DAYS
	R-9	BITUNG - BITUNG	1,316	750 DWT	14 DAYS
TAHUNA	R-10	TAHUNA - TAHUNA PP	824	750 DWT	12 DAYS
PAGIMANA	R-11	PAGIMANA - PARIGI PP	2,084	1,000 DWT	21 DAYS
		PAGIMANA - BIRINGKASI PP			
MAKASSAR	R-12	MAKASSAR - KUPANG PP	1,722	500 DWT	18 DAYS
KENDARI	R-13	KENDARI - KENDARI	1,660	500 DWT	22 DAYS
	R-14	KENDARI - KENDARI	1,640	500 DWT	20 DAYS
KUPANG	R-15	KUPANG - KUPANG	1,262	500 DWT	14 DAYS
	R-16	KUPANG - SELATAN DAYA (WONRELI) PP	690	500 DWT	11 DAYS
	R-17	KUPANG - ATAPUPU PP	682	500 DWT	11 DAYS
	R-18	KUPANG - KUPANG	724	500 DWT	11 DAYS
AMBON	R-19	AMBON - AMBON	1,817	750 DWT	21 DAYS
	R-20	AMBON - LEKSU LA PP	1,892	750 DWT	21 DAYS
		AMBON - SORONG PP			
	R-21	AMBON - KUPANG PP	2,348	750 DWT	23 DAYS
	R-22	AMBON - TUAL PP	2,646	750 DWT	26 DAYS
TUAL	R-23	TUAL - BATU GOYANG PP	2,840	750 DWT	26 DAYS
		TUAL - BIRINGKASI PP			
	R-24	TUAL - SURABAYA PP	3,092	750 DWT	36 DAYS
SAUMLAKI	R-25	SAUMLAKI - AMBON PP	3,212	750 DWT	30 DAYS
		SAUMLAKI - SURABAYA PP			
	R-26	SAUMLAKI - KUPANG PP	2,506		15 DAYS
		SAUMLAKI - AMBON PP			
TERNATE	R-27	TERNATE - SORONG PP	1,212	500 DWT	16 DAYS
	R-28	TERNATE - SORONG PP	1,856	500 DWT	22 DAYS
		TERNATE - BITUNG PP			
	R-29	TERNATE - TOBELO PP	2,852	500 DWT	23 DAYS
		TERNATE - SURABAYA PP			
JAYAPURA	R-30	JAYAPURA - BABO PP	2,690	950 DWT	23 DAYS
	R-31	JAYAPURA - TRIMURIS PP	594	350 DWT	12 DAYS
	R-32	JAYAPURA - SORONG PP	2,102	350 DWT	19 DAYS
	R-33	JAYAPURA - MANOKWARI PP	1,266	350 DWT	15 DAYS
	R-34	JAYAPURA - KASONAWEJA PP	630		12 DAYS
BIAK	R-35	BIAK - BIAK	1,024	350 DWT	13 DAYS
	R-36	BIAK - MANOKWARI PP	1,078	350 DWT	16 DAYS
	R-37	BIAK - JAYAPURA PP	1,024	350 DWT	14 DAYS
SORONG	R-38	SORONG - SORONG	804		14 DAYS
	R-39	SORONG - SORONG	1,233		16 DAYS
	R-40	SORONG - SORONG	1,322		15 DAYS
	R-41	SORONG - POMAKO PP	1,758		20 DAYS
MERAUKE	R-42	MERAUKE - SENGGO PP	1,304	350 DWT	15 DAYS
	R-43	MERAUKE - MERAUKE PP	1,286	350 DWT	14 DAYS
	R-44	MERAUKE - MERAUKE	1,793	200 DWT	22 DAYS
	R-45	MERAUKE - MERAUKE	1,326	350 DWT	15 DAYS
	R-46	MERAUKE - SORONG PP	3,856	750 DWT	30 DAYS
	R-47	MERAUKE - GESER PP	2,746	750 DWT	18 DAYS
KOTA BARU	R-48	KOTA BARU - KOTA BARU	292	500 DWT	4 DAYS
PULANG PISAU	R-49	PULANG PISAU - SURABAYA PP	1,666	500 DWT	16 DAYS
		PULANG PISAU - SURABAYA PP			

Source: DGSC

(b) Tariff

Tariff system, which is applicable to all traditional shipping routes, is regulated through Minister of Communications' Decree No. KM 86/2002 as follows:

1) Basic Passenger Cost

Table 4.5.4 Basic Passenger Cost of the Pioneer Shipping

Distance (mile)	Passenger Fee
Under 20	Rp. 3,900.-
21 ~ 100	Rp. 3.900.- + (Distance - 20 mail) x Rp. 94.-
101 ~ 200	Rp. 11,400.- + (Distance - 100 mail) x Rp. 82.-
201 ~ 300	Rp. 19,600.- + (Distance - 200 mail) x Rp. 61.-
301 ~ 400	Rp. 25,700.- + (Distance - 300 mail) x Rp. 52.-
401 ~ 500	Rp. 30,900.- + (Distance - 400 mail) x Rp. 42.-
Over 501	Rp. 35,100.- + (Distance - 500 mail) x Rp. 32.-

Note: Over Rp 50 round up to Rp 100, under Rp 50 round down.
Source: Tariff Regulation Reports of DGSC

2) Children Passenger Cost

Under 2 years old: 10% of Basic Passenger Cost
From 2 years old to 11 years old: 75% of Basic Passenger Cost

3) Baggage Cost

Baggage cost = 90% of Basic Passenger Cost per Ton/m3.

(3) Duty and Function of Relevant Organizations

The Decree on pioneer shipping stipulates the following duties and functions of the DGSC and other relevant government agencies:

(a) DGSC

It is the main government organization in charge of pioneer shipping. It is responsible for general administration and enforcement of laws and regulations.

(b) Regional Office of Communications (Dinas Perhubungan)

It serves as a liaison organization which coordinates feedbacks and suggestions from various groups catered by pioneer shipping services. It is also responsible for evaluating and integrating implementation guidelines both for existing and proposed pioneer shipping operation.

(c) Port Administration at the Calling Port

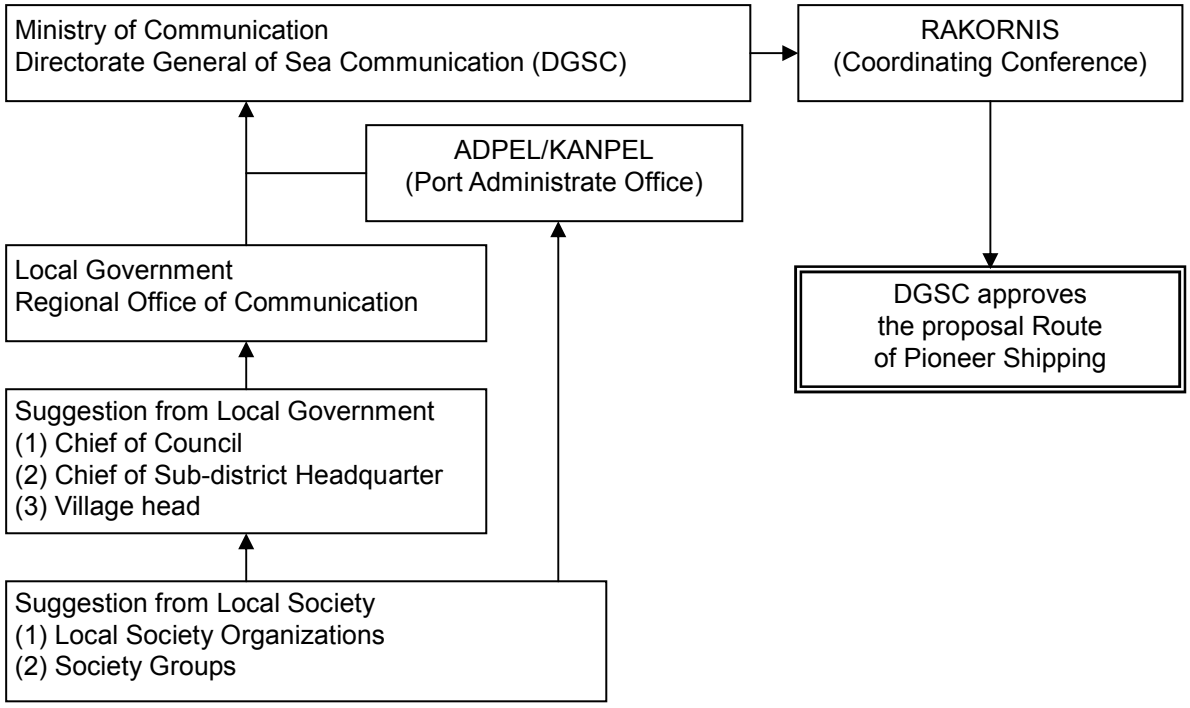
This organization monitors and evaluates related pioneer shipping activities for every voyage then reports all said activities to DGSC.

(d) Prot Office at the Calling Port

This office is responsible for monitoring and facilitating the smooth implementation of pioneer shipping.

Figure 4.5.2 illustrates a suggestion mechanism for the pioneer shipping route which is organized between and among relevant organizations. Each organization is categorized according to their respective duties and functions and not based on organizations' strong linkage with each other, making it difficult to understand and analyze the current situation of pioneer shipping operations. Relevant organizations must therefore place emphasis on cooperation and coordination with each other.

Figure 4.5.2 Suggestion Mechanism of Pioneer Shipping Route



(4) Performance of Pioneer Shipping in the Recent Years

In the last nine years, Indonesia's central government has allocated an average subsidy of Rp 38.4 billion per annum for the operation of pioneer ships. Meanwhile, the average revenue obtained in the last nine years is only around Rp 4.2 billion per annum, an average of 10.9% subsidy received. The ratio of subsidy allocated to revenue from the operation of pioneer ships in the last nine years is shown in Table 4.5.5.

Before 1998, adjusted subsidies in consideration of implicit GDP deflator are around Rp. 20 billion. Due to the Asia's economic crisis, the amount of adjusted subsidy has decreased in 1998 and 1999, recovering only in 2000 to its pre-1998 level (Figure 4.5.3).

Performance in terms of ships utilization is shown in Figures 4.5.4 and 4.5.5. In the last nine years, the average annual ship utilization for passenger transportation is 25.8% as indicated by the passenger factor (P/F) and 5.3% for cargo transportation as indicated by the load factor (L/F).

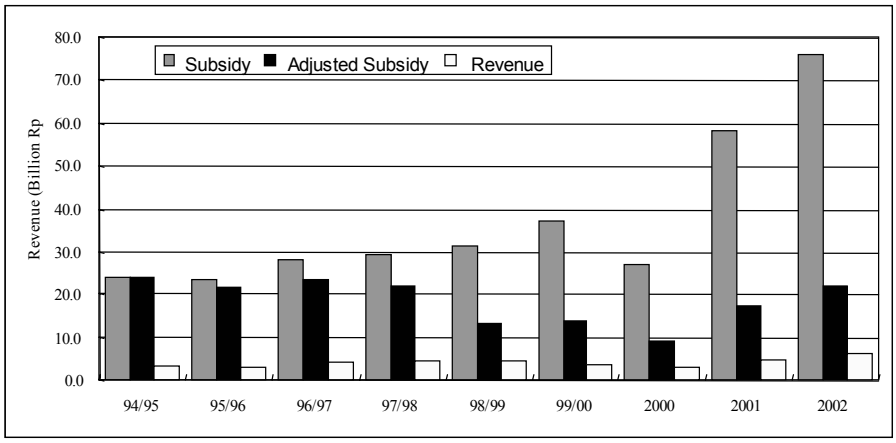
The total number of passengers and amount of cargo transported in the last nine years are also shown in Table 4.5.5. The average total number of passengers transported is 279,000 persons per year while the total amount of cargo transported is on the average 92,800 tons per year.

Table 4.5.5 Performance of Pioneer Shipping (1994 - 2002)

Indicator	94/95	95/96	96/97	97/98	98/99	99/00	2000	2001	2002	Ave.
Subsidy (Billion Rp.)	24.00	23.55	28.00	29.22	31.29	37.12	26.90	58.11	75.97	37.13
Number of Routes	34	34	36	37	37	37	36	39	45	37
No. of Calling Ports	266	263	270	270	277	276	289	355	344	290
No. of Base Ports	15	16	16	17	17	18	18	21	21	187
No. of Vessels	34	34	36	37	37	37	36	39	45	37
Total DWT	20,650	20,650	20,100	22,600	22,600	22,400	21,000	21,350	26,703	22,006
Operation Rate(%)	87.2	83.5	92	96.6	88.0	83.1	82.9	69.1	83.4	85.08
Passengers Volume (1,000 Pax.)	259.2	245.9	296.27	314.8	345.6	292.4	200.6	301.9	254.1	279.0
Cargo Volume (1,000 ton)	103.9	84.0	110.2	109.0	95.2	94.2	53.6	65.4	120.0	92.8
Revenue (Billion Rp.)	3.17	2.94	4.17	4.49	4.35	3.77	3.09	4.91	6.11	4.11
Load factor (%)	6.3	5.4	4.39	4.1	4.1	4.0	9.0	*n.a.*	*n.a.*	5.3
Passenger (%)	21.6	35.9	29.8	25.4	23.2	24.6	19.8	*n.a.*	*n.a.*	25.8

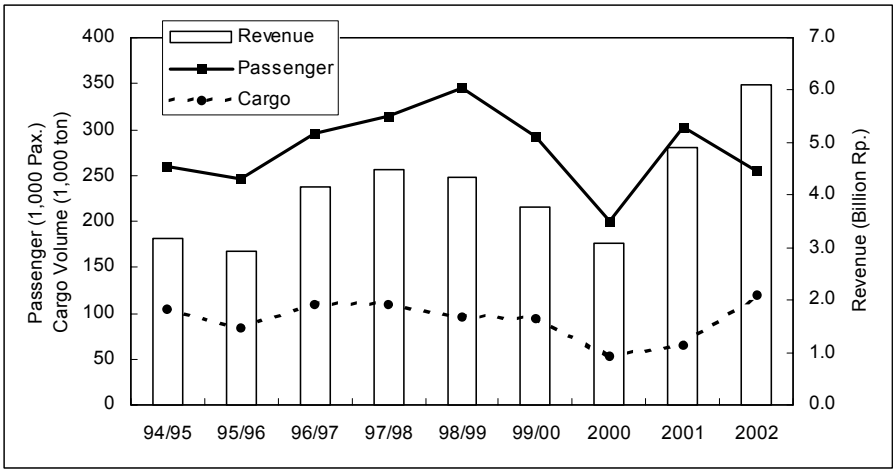
Source: Several resources form DGSC

Figure 4.5.3 Ratio of Subsidy to Income for Pioneer Ship Operation



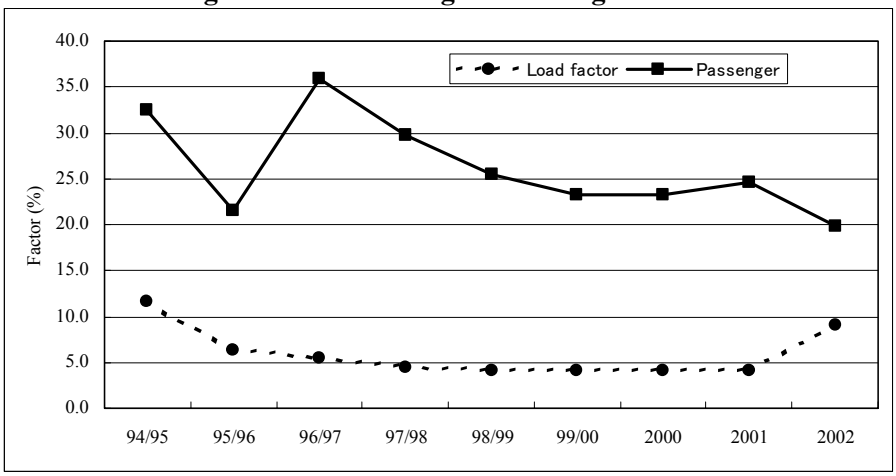
Source: Several resources from DGSC

Figure 4.5.4 Load Factor & Passenger Factor



Source: Several resources form DGSC

Figure 4.5.5 Passenger and Cargo Volume



Source: Several resources form DGSC

4.5.2. Current Problems

Based on the last nine year's implementation of pioneer shipping, several problems can be identified as follows:

1. Difficulty in updating some useful data necessary to define the economic viability of remote and undeveloped regions. Thus, there are still proposed routes for pioneer shipping despite lack of verified information for determining ports/regions.
2. Low operational subsidy results to lack of repair/replacement parts and insufficient maintenance. Thus, maintenance problems oftentimes occur resulting to irregular schedules of pioneer ships. The central government therefore needs to review their stand on their subsidy system and repair/replacement parts supply.
4. There is a bigger market for passenger transportation than cargo transportation but pioneer ships are freight vessels with minimal facilities for passengers. Therefore, to increase the required services, it is necessary to operate pioneer ships with additional facilities for passenger.
5. The shortage of available types, size and capacity of ships for the operation of pioneer shipping especially for the Eastern Part of Indonesia (size 750 DWT, 500 DWT, 350 DWT and 200 DWT) has resulted in delays in starting the pioneer vessel services.
6. The pioneer ships are generally old resulting to ships experiencing maintenance problems in several routes, with replacement ships also experiencing maintenance problems. Shipping operations are therefore not maximized in specific routes for both passengers and cargoes.
7. The inadequate port facilities and navigation means at various ports of call have resulted in impediments to the operation of ships.
8. The current subsidy system is based on the proposal system. Thus, if the shipping company operating pioneer services does not maximize its operation potentials, government ends up paying the subsidy. The government therefore needs to enhance its monitoring system to effectively use its resources for pioneer shipping subsidy.

4.6. Traditional Shipping

4.6.1. Activities of Traditional Shipping

(1) Background

(a) Definition of Traditional Shipping

Traditional shipping is a sea transportation activity which addresses the demand for the transport of animal and cargo with the use of sailing boat, traditional motor sailing boat and certain-sized motor ship. A Traditional Shipping company is a sea transportation company based on Indonesian corporate body.

Traditional shipping provides services in remote areas and plays a significant role in supporting inter-inland shipping services. The service routes depend on type of commodities and seasons.

There are many advantages of and strategic functions played by traditional shipping that contributes to regional development. From the macro standpoint, traditional shipping plays a very crucial role linked to the development of remote areas.

The advantages of traditional shipping are as follows:

1. Spare parts for repairs, maintenance and supply (RMS) are not dependent on imports.

2. Their operation is not too dependent on the infrastructure of the ports of origin and ports of destination.

3. Traditional shipping is a self-reliant undertaking and is not very much bound by tight regulations.

In addition, ships used in traditional shipping have the advantage of entering shallow waters and small ports that do not have adequate mooring facilities. Some of the traditional ships have a low draft, enabling them to enter such small ports. In line with their capability to enter small ports, cargo owners who do not have the option of alternative transportation methods can always take advantage of the traditional transportation services to transport their trade cargo from and to small ports.

(b) Ship Type of Traditional Shipping

Traditional shipping vessels are sized between $20m^3$ - $850m^3$ and have four types of ships, as follows.

Phinisi: Phinisi is constructed in South of Sulawesi and operating in all of Indonesia region, and this is similar to schooner with two masts, two main sails, two topsails, three jibs in foremast, and two rudders in both sides. Now, most of Phinisi has only one mast and engine with controlled installed in deckhouse. This vessel's size is between 150 until 450 ton.

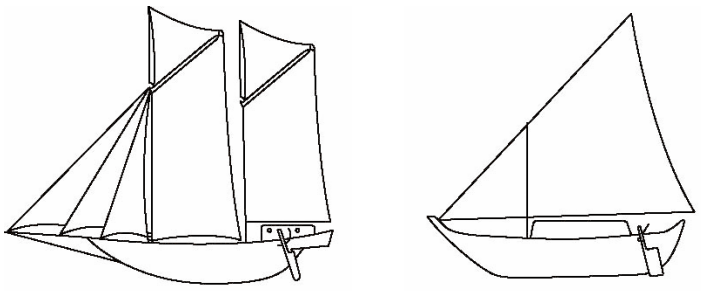
Lambo: Lambo is constructed in South East of Sulawasi and operating around eastern part of Indonesia, and this vessel is similar to sloop with one mast and two sails (one main sails and big jib in front). This vessel's size is between 50 until 150 ton.

Nade: Nade is constructed in Sumatra and operating around Riau Archipelago, this vessel has one must and two sails. The main sails looks like big jib. This vessel's size is between 5 until 150 ton.

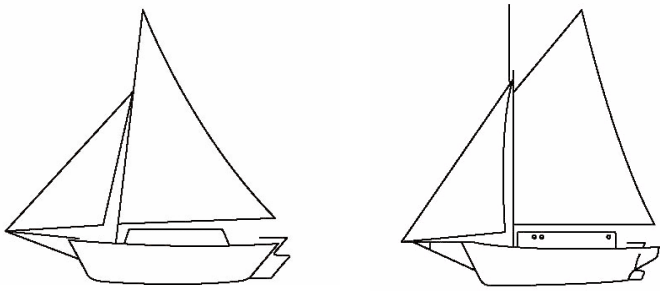
Lete: Lete is constructed in Madura and operating around Madura, East Java, West Kalimantan and Central Kalimantan. Most of these vessels have one short mast in front and one sail. This vessel's size is between 5 until 100 ton.

Figure 4.6.1 Ship Type of Traditional Shipping

Phinisi ***Lambo***



Nade ***Lete***



(c) Tariff

In traditional shipping, tariff is normally referred to as "all in" tariff which means inclusive of freight, stevedoring and forwarding charges. The tariff rate of traditional shipping is 25% cheaper than other inter-island transport tariffs. For example, tariff between Sunda Kelapa Port and Pontianak Port is around Rp. 60,000 ton/m^3.

(2) Traditional Shipping Services

(a) Route and Commodities

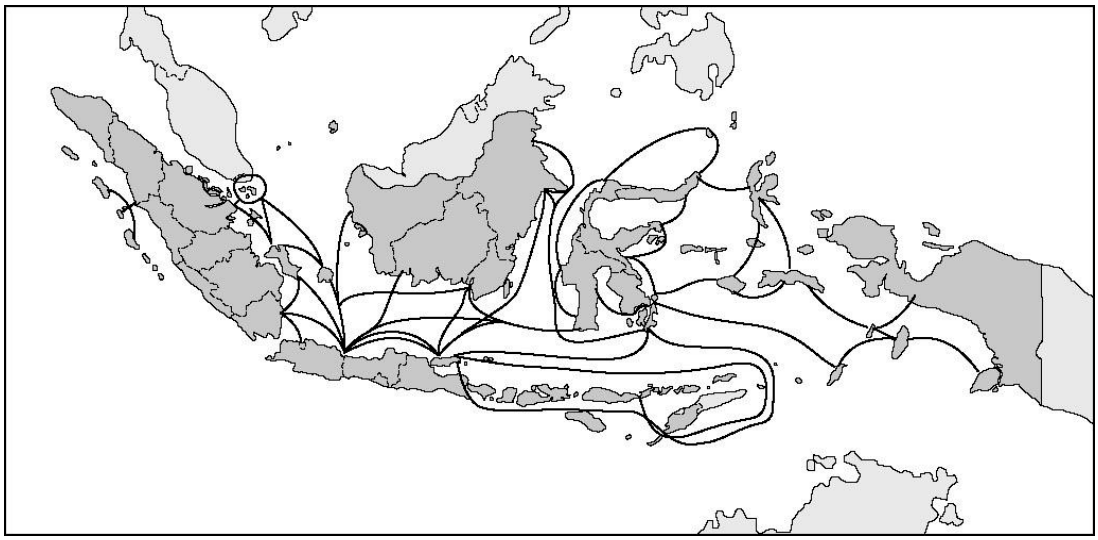
Traditional shipping seems to be serving main tertiary ports and regional or local feeder ports, especially in the transport of basic commodities, construction materials and fertilizer. The cargo volume ranges from 200 - 300 GT.

East of Kalimantan: The main commodities from this area are logs, timbers, plywood, coal, handicraft, among others. Using the Phinisi, all of the abovementioned commodities can be carried from Samarinda or Balikpapan to Tawao, Sabah and Brunei Darussalam.

North of Sulawesi: The main commodities from this region are coconut oil, coconut dried (copra), rotan, nutmeg and mace, fish tails, handicraft, and charcoal, among others. From this area, the commodities can also be carried by Phinisi from/to Manado and South of Philippines.

Sumatrera: The main commodities from this area are vegetables, fish and charcoal, among others. Using small traditional boats, said commodities are carried to Penang area and Singapore from Riau Island.

Figure 4.6.2 Service Routes of Traditional Shipping (Major Routes only)



Source: Traditional Shipping Association

(3) On-boat Survey at Tg. Priok

There are around 20 readily available vessels waiting for cargos in anchorage at Tg. Priok which are more than 10 years old during the data gathering period. Lifeboats and life-reserves were set up on the vessels, but these survival equipments have never been maintained for a long time. The exterior and interior decors of traditional ships appear to be like those of aging ships.

Figure 4.6.3 External View of Traditional Ship

Figure 4.6.4 Bleak Bridge

The crew maintains the main engine and generator frequently, but routine maintenance is quite difficult because of the crew's inadequate maintenance techniques and lack of spare parts resulting to repeated engine troubles. Thus, old vessels and engines should be professionally maintained and should have a regular supply of maintenance materials from ship owners.

Figure 4.6.5 Lack of Maintenance Engine (1)

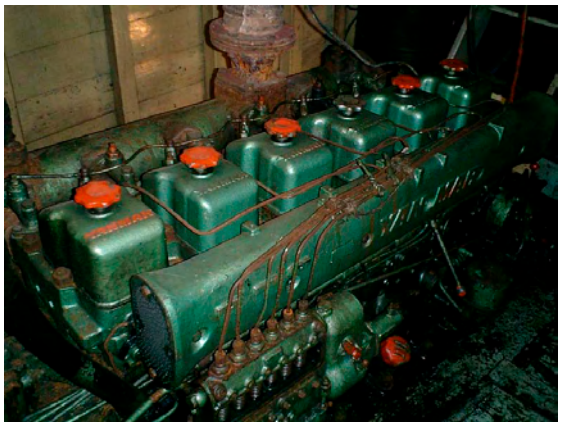


Figure 4.6.6 Lack of Maintenance Engine (2)

As shown in Figures 4.6.7 and 4.6.8, cargo handling is manually done without handling cranes. Although cargo handling appears efficient due to hard-working staffs, it is actually very inefficient and dangerous because of longer handling time and higher manpower costs. In the future, cargo handling operations will be improved with the acquisition of machine operated cranes.

Figure 4.6.7 Cargo Handling (1)

Figure 4.6.8 Cargo Handling (2)

(4) Profiles of Shipping Companies and Relevant Agencies

(a) Traditional Shipping Company

There is an estimated 678 total number of traditional companies employing around 70,000 - 80,000 persons comprising of entrepreneurs/businessmen, owners, ship crew, personnel, labor, and handicraft workers. In general, however, level of formal education of manpower resources is low, mostly comprised of elementary school

graduates who have family members working already in the companies. In addition, manpower are generally very naïve and compliant in maintaining their religious duties.

(b) Traditional Shipping Association

The traditional shipping association (Asosiasi Pelayaran Rakyat) was organized in 1974 with the objective of drawing together the traditional shipping communities. This association is consisted of the DPP (Dewan Pimpinan Pusat/Central Heads Council), the DPD (Dewan Pimpinan Daerah/Regional Heads Council) and the DPC (Dewan Pimpinan Cabang/Branch Heads Council).

(c) Human Resources

The government has decreed that traditional shipping companies have an obligation to improve the quality of their human resources as follows.

DGSC Decree Number PY.68/1/5/86 dated 1 July 1986, regarding the Proficiency Certificate for Captains/Motor Expert in Traditional Shipping, has the following requirements:

1) To obtain the Level II Proficiency Certificate as Captain in the Traditional Shipping, one must be:

- Indonesian citizen
- At least 18 years of age
- Sound physical and mental health as verified by a letter from a medical practitioner
- At least 2 years sailing experience
- Has passed the exams.

2) To obtain the Level I Proficiency Certificate as Captain of Traditional Shipping, one must be:

- Indonesian citizen
- At least 20 years of age
- Sound physical and mental health as verified by a letter from a medical practitioner
- Has a Level II Proficiency Certificate as Captain of Traditional Shipping
- Has passed the exams.

There is however no strict regulations and qualifications set for general seafarers, thus making it difficult to solely depend on the cargo and ship owners' assurance. The central government therefore needs to closely monitor effective implementation of the regulations for the traditional shipping seafarers.

(5) Performance of the Traditional Shipping in Recent Years

The number of traditional shipping companies has increased from 635 to 769 companies in 1995 through 1999, registering a growth rate of 21.1%, details of expansion as follows:

a. On the basis of ship units, the vessel has increased from 2,264 ships to 2,613 ships (an average growth rate of 4.59% per year);

b. On the basis of the ships size in GT, it has increased from 315,869 GT to 317,986 GT (an average growth rate of 1.93% per year).

Table 4.6.1 Growth of Traditional Shipping (1995 - 1999)

Description	Year					Growth Rate (%)
	1995	1996	1997	1998	1999	
Total Number of Companies	635	652	678	685	769	21.10
Vessel (Number of Units)	2.264	2.264	2.793	2.382	2.613	4.59
(Total GT)	315.869	315.869	397.616	426.623	317.986	1.93

Source: Directorate General of Sea Communications, 2000

The total number of traditional shipping companies in DKI Jakarta in 1995 was 111 companies, 17.48% of the total number of traditional shipping companies in Indonesia in 1995. By 1999, the total number of traditional shipping companies in DKI Jakarta has increased to 114 companies (14.82%).

In the Province of Central Java, the total number of traditional shipping companies in 1995 was 43 companies (6.77%) and subsequently increased to 50 companies in 1999 (6.50%).

Also in1995, the total number of traditional shipping companies in the Province of East Java was 122 companies which subsequently increased to 126 companies in 1999. The increase in total number of traditional shipping companies in East Java shows that there had been an increased number of business people that are interested in the traditional shipping. The increase in the total number of traditional shipping companies in East Java had been able to reduce the total number of the annually increasing unemployed persons in the province.

The Province of South Kalimantan in 1995 has 29 companies engaged in traditional shipping operations (4.57% of the total number of traditional shipping companies in Indonesia), which increased to 31 (4.03%) in 1999.

The total number of traditional shipping companies in the Province of South Sulawesi has continued to decline through the years. This decline is attributed to the economic crisis and to the decreasing volume of cargo to be transported by the traditional shipping companies. The total number of traditional shipping companies in 1995 in the Province of South Sulawesi was 62 companies which further declined to 60 companies in 1999.

For the period 1995 - 2000, cargo volume of traditional shipping vessels has remained roughly invariable. A more detailed data on the growth of cargo transported by traditional shipping is shown in Table 4.6.2.

Table 4.6.2 Cargo Volume in Recent Years (1995 - 2000)

	1995	1996	1997	1998	1999	2000
Cargo Volume (1,000 ton)	7,364	8,373	8,582	5,182	6,740	7,261

Source: Presentation paper from DGSC

The traditional shipping vessel had transported domestic cargo amounting to 7,364,000 ton in 1995 and further declined to 6,585,000 ton in 1999. However, also in 1999, the traditional shipping vessel had also transported the national export/import cargo amounting to 155,000 ton. Such national export/import cargo is the realization of cross border transportation. This confidence given to the traditional shipping vessel to transport the national export/import cargo is an indication that the confidence of shipping services users for traditional shipping has been increasing.

4.6.2. Current Problems

On the basis of the implementation of traditional shipping in the last nine years, several problems that need to be resolved are identified as follows:

1. The traditional shipping vessels have been able to utilize wood as raw material for vessels under the selective cutting system. But in recent years, uncontrolled deforestation has resulted to high price of wood due to scarcity of wood material making vessels with average age of 10 years already dilapidated.
2. Even though traditional ships primarily serve remote islands and provinces, they also service main port to main port routes. However, traditional ships are losing due to competition from modern ships which are faster, more efficient and safer. This led to lower demand for both passenger and cargo thereby forcing traditional ships to have longer waiting time in ports or accept low cargo loading factors or low value goods.
3. Traditional shipping has been sailing widely and has made large contributions to economic development in Indonesia. But in recent years, traditional shipping cannot satisfy demands for timely supply of urgent and daily goods in various regions because the traditional vessels have limitations in terms of service route and speed.
4. The government has obligated owners of traditional shipping companies to insure their ship crew as well as provide service users and cargo owners guarantees against risks and damages and losses while on voyage. However, no insurance companies are willing to give insurance to crews and vessels of traditional ships since these wooden vessels are very high risk and vulnerable to fire. Some companies offer insurance for cargo but insurance premium is very high.
5. In general, traditional shipping companies have never been willing to be bound by recruitment standard regulations. Thus, recruitment methods only depend on the needs of the enterprise that place priority to experience rather than other formal qualifications. In other words, recruitment has not yet been done in a professional manner.

4.7. Overseas Shipping by Indonesian Operators

The President Instruction No.4 in 1985 indicated a liberalized call for foreign ships in order to aim at export promotion. Since 1986, Indonesian shipping industry only registered a

single digit market share in overseas shipping, e.g. 16.1% in 1985, 8.0% in 1986 and 5.5% in 2001. This section briefly reports on the limited activities of Indonesian shipping companies and discusses to some extent the complicated relations between Singapore and Indonesia.

(1) Liner Operators

Since the 1960s, the number of Indonesian liner operators has remained to six. The Government has protected these liner operators from possible competition until 1985. However, after 1985, many foreign companies have extended their routes to Indonesia or assigned vessels between Singapore and Indonesia which discouraged other Indonesian operators from entering.

Since 1985, the six liner operators have either reduced their total fleets or assigned some vessels in tramper services. In particular, PT. Djakarta Lloyd, a state-owned company, was forced to reduce its operation scale in line with the decreasing governmental subsidy.

Table 4.7.1 Indonesian Shipping Companies Engaged in Overseas Liner Services

Name of Company	No. of Ships	Major Cargoes
PT. Djakarta Lloyd	16	Container, General Cargo
PT. Samudera Indonesia	2	Container, Liquid, Bulk
PT. Admiral Lines	3	Container, General Cargo
PT. Trikora Lloyd	1	Container, General Cargo
PT. Gesuri Lloyd	3	General Cargo, Bulker
PT. Karana Line	2	Container, General Cargo
Total	27	

Source: INSA 2001

(2) Tramper Services

In addition to the six Indonesian liner operators, six other operators are providing tramper services. Unlike the liner operators, tramper operators show a tendency to increase their fleets, average vessel size, and flag-out vessels to compete with foreign operators.

Among them, for instance, PT. Berlian Laju Tanker (BLT) has expanded its fleet recently, to provide larger oil tanker and chemical tanker services. The company owns 36 vessels, of which 23 vessels are young since they were built after 1992. Only six vessels are under Indonesian flag.

Table 4.7.2 Indonesian Shipping Companies Engaged in Overseas Tramper Services

Name of Company	No. of Ships	Major Cargoes
PT. Bahtera Adhiguna	8	Dry bulk
PT. Berlian Laju Tanker	26	Oil, Chemical
PT. Bahana Utama Lines	1	Container, General Cargo
PT. PUL International Lines	1	Container, General Cargo
PT. Arpeni Pratama Ocean Lines	13	Dry bulk, Plywood
Total	49	

Source: INSA 2001

(3) Dependence on Singapore

Most of containers to/from Indonesian ports are transshipped at Singapore. Many of Indonesian shipping companies put regional operation offices at Singapore and register vessels under Singapore flag. For instance, PT. Berlian Laju Tanke holds 10 Singapore flagged vessels.

Samudera Shipping Line Ltd., a large container carrier between Singapore and Jakarta, transports about a quarter million TEU on the route in 2002. The company was established in Singapore in 1993 with the largest shareholder at PT. Samudera Indonesia (39.8% in 2002). It can be observed that Samudera Group's regional management function was transferred from Jakarta to Singapore. The study has identified several reasons why Samudera Group has an increasing shipping business dependency on Singapore, as follows:

(a) Cargo volume

Cargo volume in Singapore is much larger than that in Indonesia.

(b) Port facility

Port facility in Singapore is better than in Indonesia.

(c) Banking

Settlement system and financial system of banks in Singapore are better than those in Indonesia.

(d) Taxes

Tax system in Singapore is attractive than that in Indonesia.

(e) Acknowledgement/Information

It is easier for a company to get acknowledgement and information in Singapore and to introduce IT system.

(f) Governmental regulation

Singapore implements better policies and regulations which shipping companies find attractive over Indonesia.

4.8. Shipping-Related Services

4.8.1. Forwarders

(1) Current Conditions

(a) Definition

There is no clear and official definition of forwarders as stipulated by law or regulation. But in general, forwarders are referred to as freight forwarders and compose of domestic forwarders, international forwarders and custom brokers. Their business is the inland transportation business covering all modes of transportation such as truck, railway, air, sea, and inland waterway. Recently, they are now referred to as logistics forwarders.

(b) Regulatory Environments

1. Important regulations are Government Regulation No. 15/1992 on air transportation and Government Regulation No. 82/1999 on water transportation.

2. Forwarders are under the control of the Ministry of Communications (MOC) and the Ministry of Industry and Trade (MOIT). The MOC refers to them as freight forwarders and the MOIT refers to them as logistics forwarders.

(c) Number of Forwarders in Indonesia

In the past three years, Indonesian forwarders have increased by 358 companies. Of the total number of forwarders, 77% or 2,320 companies are located on Java Island, most of which are concentrated in Jakarta.

Table 4.8.1 Number of Forwarders in Indonesia

Area	Year 2000				Year 2001				Year 2002			
	Loc	Dom	Intl	TTL	Loc	Dom	Intl	TTL	Loc	Dom	Intl	TTL
Jakarta	544	407	389	1,340	617	442	429	1,488	662	477	463	1,602
West Java	89	-	-	89	89	-	-	89	89	-	-	89
Central Java	132	-	-	132	132	-	1	133	132	-	2	134
East Java	217	260	13	490	217	260	15	492	217	260	18	495
Bali	57	22	17	96	61	25	17	103	69	42	18	129
Lampung	18	11	1	30	18	11	1	30	18	11	1	30
South Sumatera	48	3	1	52	48	3	1	52	48	3	1	52
North Sumatera	132	3	2	137	132	3	2	137	132	3	2	137
West Sumatera	10	7	2	19	10	7	2	19	12	7	2	21
Jambi	6	2	1	9	6	2	1	9	6	2	1	9
Riau	12	1	-	13	12	1	-	13	12	1	-	13
North Sulawesi	23	-	-	23	23	-	-	23	23	-	-	23
Central Sulawesi	-	-	-	-	-	-	-	-	49	-	-	49
South Sulawesi	48	36	-	84	49	36	2	87	49	36	2	87
East Nusa Tenggara	14	-	-	14	14	-	-	14	14	-	-	14
Maluku	-	-	-	-	-	-	-	-	-	-	-	-
West Kalimantan	25	-	-	25	25	-	-	25	25	-	-	25
East Kalimantan	30	-	-	30	31	-	-	31	32	-	-	32
Papua	54	-	-	54	54	-	-	54	54	-	-	54
Batam Island	32	-	-	32	32	-	-	32	32	-	-	32
(Specia delegation)												
TOTAL	1,491	752	426	2,669	1,570	790	471	2,831	1,675	842	510	3,027

Source: INFA. Notes: Loc – Local (Custom broker); Dom – Domestic; Intl – International

(d) Forwarder's Service Coverage

The forwarding business in Indonesia is limited to the transport of general cargo and container cargo. They cannot transport industrial products (e.g. oil, cement, fertilizer, and wood products) because each industrial company handles, controls and manages their transportation. Industry transportation companies are called special shipping companies in the shipping business. They concentrate in the transport of general cargo and container cargo, especially consumer goods. According to INFA (forwarders' association), most domestic forwarders deal with traditional shipping in transporting consumer goods due to the competitive shipping prices.

(e) Relationship between forwarding business and shipping business

Ten years ago, there was a healthy business relationship between the shipping

companies and the forwarders. However, several big shipping companies (e.g. Maersk, P&O Ned Lloyd, APL, NYK, Sumdera, etc,) have involved themselves in distributing the goods they carry and have no more need for forwarders.

Nowadays, large foreign and national shipping lines and foreign forwarders have entered the forwarding business in Indonesia in joint ventures. These are major players of the Indonesian Forwarders Association (INFA). This move may further drive local and small forwarders away from the lion's share of the industry.

(f) Administrative Issue

The forwarders in Indonesia strongly feel that two parallel licensing systems issued by the MOC and the MOIT adversely affect them. In 1993, UNCTAD recommended that the Government combine the two licenses and issue just one.

(2) Results of Questionnaire Survey

(a) Profile of Forwarder companies

Forwarder companies can be categorized according to the main business such as warehousing, trucking, custom clearance, and agent work. Some manufacturers are directly negotiating with shippers and other carriers when they handle the transportation of their products. The questionnaire survey collected 38 samples and 32 of them showed specific characteristics of their operation. Forwarding companies are generally small in number of employees with an average size of less than 30, and manufacturing company is 1,000, as indicated in the table below.

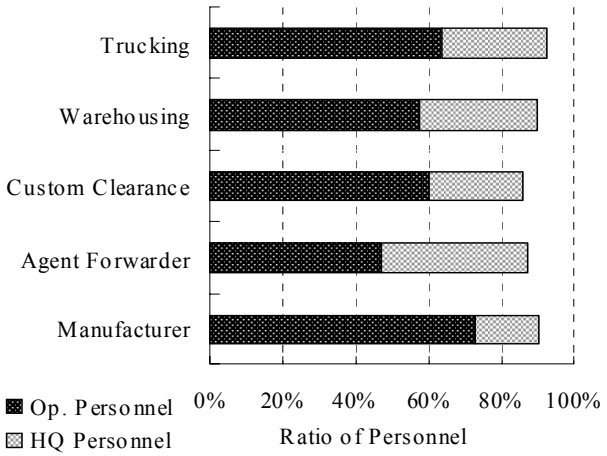
Table 4.8.2 Profile of Forwarder and Cargo Owner

	Number of Company	Average number of Operational Personnel	Average number of Headquarter Personnel	Other Personnel	Total
Trucking	10	17	8	2	27
Warehousing	8	23	13	4	40
Custom Clearance	3	13	6	3	22
Agent Forwarder	6	11	9	3	23
Manufacturer	5	847	204	113	1,164

Source: STRAMINDO, Questionnaire Interview survey

Forwarding companies consists of approximately 60% of employees working at the operational section and 30% at headquarter offices, except for agent and manufacturer. Among various works of forwarders, trucking and warehouse distributions are major work contributing in the system of logistics. The ratio of employees working in these sections is the same ratio as those in the shipping companies.

Figure 4.8.1 Composition of Personnel in Forwarding Companies



The average amount of cargo handled in recent years shows almost the same level although there are some fluctuations. Major portion of cargo is handled by trucking forwarders and the rest is all minor portion of cargo. A remarkable increase is seen in the amount traded by warehousing forwarders. On the other hand, there is a notable decrease in the cargo of custom clearance forwarders.

Table 4.8.3 Average Cargo Volume by One Forwarder in Recent Years

(Metric Ton)

	Year 2000	2001	2002
Warehousing	42,562	83,821	73,702
Trucking	102,573,225	90,298,390	97,827,119
Custom Clearance	14,681	5,206	3,475
Agent Forwarder	107,221	106,113	99,960
Manufacturer	973,762	1,017,228	1,115,518

Source: STRAMINDO : Questionnaire Interview survey

(b) Recognition of Cost, Concerns and Obstacles

Managers of forwarders have the following recognition about cost items and concerns. As for cost items, shipping is listed as one of the highest concerns but the degree is rather low at mostly 50% level. Trucking cost is the second significant cost item. Salary and administration cost follows in terms of seriousness of cost items. These four items are main targets when cargo owners try to negotiate and reduce the transportation cost. Shipping business is, therefore, under strong pressure of price reduction.

Table 4.8.4 Major Cost Items Identified by Forwarders

	90%	80%	70%	60%	50%	Total Co.
Shipping Cost	0	1	1	**2**	**6**	10
Trucking Cost	1	0	1	**2**	0	4
Salary	1	0	1	0	1	3
Admin Cost	0	0	0	1	2	3
Claims	1	0	1	0	0	2
Tax	1	0	0	0	0	1
Maintenance Cost	0	0	0	0	1	1
Insurance Payment	0	0	0	0	0	0
Loan Repayment	0	0	0	0	0	0

Source: STRAMINDO : Questionnaire Interview survey

Major concerns by forwarding companies are identified such that two items of revenue increase, namely Revenue and Marketing, are key concerns while Finance and cost cutting follows. These four items are commonly observed in every business in order to improve the financial structure of companies.

On the other hand, Human Resource Development and Organization are recognized as least important among various items. This tendency seems to reflect the lack of awareness of managers on the importance of organization and human factor for company performance.

Table 4.8.5 Major Concern Identified by Forwarder Companies

	No. 1	No. 2	No. 3	No. 4	No. 5	Total Co.
Revenue	**10**	**10**	3	2	1	26
Marketing	**10**	4	**7**	2	0	23
Finance	5	**9**	**7**	4	2	27
Cost Cutting	3	**7**	5	3	**6**	24
Safety	2	2	3	1	2	10
Environment	1	3	0	0	2	6
New Technology	1	0	1	2	1	5
Human Resource Development	0	1	2	**11**	5	19
Organization	0	0	1	**6**	**10**	17

Source: STRAMINDO : Questionnaire Interview survey

When cargo forwarding companies try to develop their business, managers find the conventional business environment, the so-called 'Old System', as the most significant obstacle, then 'lack of Human Resource' as the second. Managers realized that the lack of capable personnel to supervise and organize workforce makes the development of business difficult.

Items related to administration such as 'Regulation' and 'Invisible Cost' are also recognized as highly problematic. Regulations are often changed with short intervals, so private companies have difficulty complying with regulations. Invisible cost is also a problem because it is not only difficult to predict but it also has the tendency to increase. These unpredictable cost items discourage private companies from investing in business for modernization.

Table 4.8.6 Major Obstacles Identified by Forwarders

	No. 1	No. 2	No. 3	No. 4	No. 5	Total Co.
Old System in Industry	**7**	**5**	3	2	1	18
Lack of Human Resource	**5**	3	4	0	4	16
Poor Port	4	4	**6**	**6**	**6**	26
Regulation	4	**7**	2	**6**	3	22
Invisible Cost	4	**6**	5	1	2	18
Finance	4	1	4	4	1	14
Documentation	1	1	0	**7**	2	11
Inter-Modal Connection	1	4	4	0	1	10
Land Transportation	0	2	3	3	2	10
Info Tech	0	0	1	1	3	5
Other	0	0	0	0	0	0

Source: STRAMINDO : Questionnaire Interview survey

When asked for opinions (written in free answer space of survey sheet), respondents indicate that government regulations have two major failures. One is its changeable nature and another is non-conformity with reality. The former is the same with the

item described above as one of major obstacles, and the latter refers to the practical aspect that regulations are not effectively implemented to the actual activity of business even after they are enacted. As a result, some even opines that regulation does not ensure the existence itself.

With regards to the government procedure of documentation, half of the respondents request to simplify the process while the other half perceives that it is good enough. When there are some invisible barriers, some people feel them as problems and those who are protected by the barriers perceive them as good. For the purpose of business liberalization, document processing system needs to be simplified.

In addition, the other areas where government interventions are requested to extend in transportation industry are improvement of port operation, port tariff reduction and financial support for renewal of facility and machinery. Also with government help, 'Cargo Insurance' is hoped to be improved because the shipping business needs reliability.

It is always an issue in governmental policy on how to balance between a protective state and an open state. Under the current stage of development in maritime transportation industry, managers in private sectors seem to consider that government intervention to support the development is still important. After the industry has developed and become strong enough to compete in the international market, liberalization policy will be effective.

4.8.2. IWT Operator

(1) Definition

Inland water transport (IWT) is called river and lake transportation in Indonesia. It is an essential part of the national water transportation system (PP 82/1999 on Transportation on Waters). River and lake transportation navigates on and through lakes, rivers and canals. It has both fixed and non-fixed routes (No. 22/1992, Shipping Law).

(2) IWT Service

IWT service started in 1992. Today, numerous IWT ships are operational including water buses, tugboats, barges, long boats, small cargo vessels, speed boats, small motor vehicles, flat wooden vessels, bamboo vessels (*klotok*), and water trucks.

The total fleet is 21,117 vessels and this number is broken down by province as shown in Table 4.8.7. The Indonesian IWT can be characterized as follows:

- IWT is extensive in Sumatra and Kalimantan.
- Most IWT ships are made of wood. The average size of passenger ships ranges from 50 to 100 GT. Most cargo ships are below 50 GT.
- IWT carries forest products and commodities for domestic consumption such as food, beverage, fuel, and general cargo.
- Most IWT services connect more than two ports along the same river. Only in Central Kalimantan does it connect two rivers, Kapuas and Kahayan.
- Since IWT is typically a small, private business, the number of operators cannot be accurately counted.

- The IWT network encompasses 214 rivers with 27,941 km and 27 lakes with 3,687 km^2.

Table 4.8.7 IWT Fleet in Indonesia

No.	Province	Name of Major IWT	Unit
1	NAD		795
2	Sumatera Utara	Toba Lake	602
		Asahan River	
3	Jambi	Hari River	2,253
		Tungkal River	
4	Sumatera Barat		169
5	Sumatera Selatan	Musi River	1,914
		Komering River	
6	Riau	Siak River	2,426
		Rokan River	
		Kampar River	
7	Jawa Tengah		47
8	Bali		145
9	Sulawesi Selatan		26
10	Kalimantan Barat	Kapuas River	1,353
11	Kalimantan Selatan	Barito River	2,891
		Negara River	
12	Kalimantan Timur	Mahakam River	1,027
		Kayan River	
13	Kalimantan Tengah	Kahayan River	7,364
		Mendawai River	
		Kapuas River	
14	Irian Jaya		105
Total			21,117

Source: DGLC

(3) IWT Administration

In Indonesia, IWT is under the control of Lalulintas Angkutan Sungai Danau Dan (LLASDP) in the Directorate General of Land Communication (DGLC), but its operations are under the Sea Communication Regulation. The operational regulations on IWT being used date back to the Dutch occupation of Indonesia, because the provisions for IWT operations are not clear in the new regulations, PP 82 & KM 32 1999/2000.

LLASDP cannot control IWT due to the numerous ports and its business nature. IWT operators have raised problems such as river sedimentation and flooding. In actuality, local governments manage IWT.

LLASDP has training centers for seafarers in Palembang, South Sumatra. Total participants are from 30 to 40 persons per course. Trainees not only come from not Indonesia but also from other ASEAN countries since the school was appointed as the Center of ASEAN Excellence in the IWT sector.

4.8.3. Bunkering Service

Bunkering costs may affect shipping competitiveness in the international market. Therefore, the Study collected the latest oil prices in Jakarta, Singapore, Bangkok, and Hongkong. As a result, it can be pointed out that Jakarta's fuel oil almost equals Singapore's products in

prices. However, Indonesian ships procure lubricant oil at expensive prices since Jakarta's prices are considerably higher than any other surveyed ports.

Table 4.8.8 Prices of Fuel and Lubricating Oils

	Fuel Oil (US$/MT)				Lubricating Oil (US$/Liter)		
	MFO 180 cst	MDO	MGO	HSD	Cylinder Oil 70	System Oil 404	System Oil 30
Hongkong	--	--	--	--	0.8444	0.7974	0.6633
Jakarta	186.80	205	--	206	1.3441	1.3165	1.1286
Singapore	166.50	213	216.5	--	0.8180	0.7725	0.6425
Bangkok	--	--	--	--	0.8180	0.7725	0.6425

Source: STRAMINDO

4.8.4. Insurance Companies

(1) Conditions

Of the 104 non-life insurance companies now operating in Indonesia, 3 are state enterprises, 79 are domestic private companies and 22 are joint-venture corporations. The report entitled ***Indonesian Insurance 2001*** show gross premiums for marine hull and gross claims on it from 1997 to 2001, as shown in Table 4.8.9.

Table 4.8.9 Changes in Gross Premiums for and Gross Claims on Marine Hull

(Unit: In billion Rupiah)

Description	1997	1998	1999	2000	2001
Gross Premiums	362.8	708.7	296.6	225.4	294.4
Gross Claims	145.1	590.4	443.2	85.2	147.2

Source: Indonesian Insurance 2001

The above statistics show that marine hull insurance is a very high risk for insurance companies. In fact, many companies have shifted their business to other targets, such as properties and motor vehicles. For example, a Japanese-Indonesian joint venture does not do business on hull insurance subject to the domestic shipping company of Indonesia. Although charges on marine hull insurance change with the contract terms, the price in Indonesia is generally about 10,000 US dollars per ship per year.

(2) Current Problems

The Study observed the following problems between shipping companies and insurers:

- There are a number of lawsuits related to payments of marine hull premiums. Since the marine hull insurance has a wide coverage (category 5) for repair claims, many claims from shipowners are pending.
- Insurance companies' management capacity is limited. Due to a shortage in marine specialists, they neither investigate accident sites nor measure hull damage directly. They accept the BKI's and other authorities' professional judgment.
- Many small shipping companies do not pay insurance premiums on hull, machinery, and protection and indemnity (P&I).