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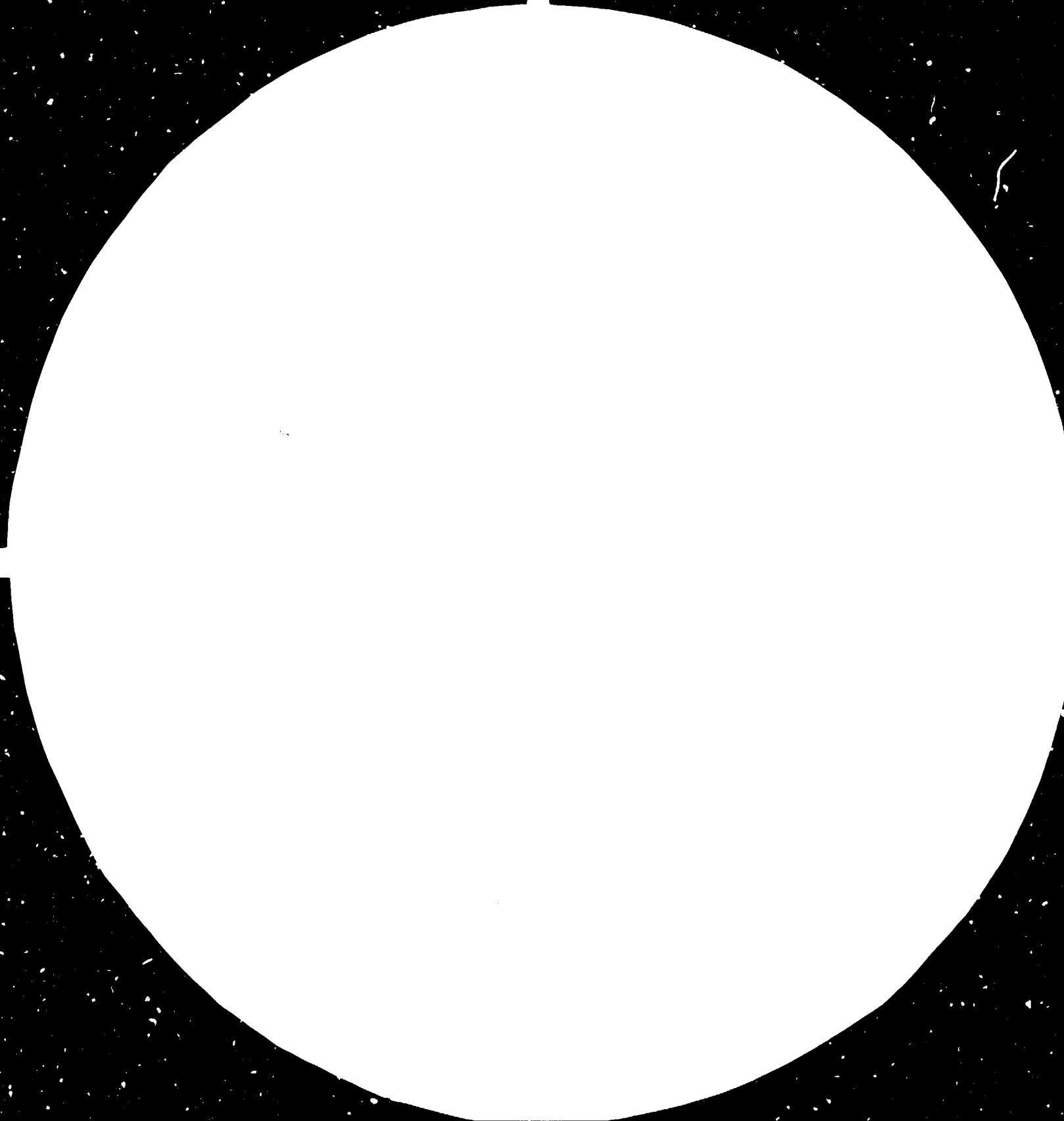
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32



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PRESENT SITUATION AND PERSPECTIVE OF  
SHIPBUILDING AND SHIPREPAIR IN INDONESIA\*

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<u>CONTENT</u>	<u>PAGE</u>	
CHAPTER I	INTRODUCTION	2
	1. Background .....	2
CHAPTER II	GOVERNMENT ACTION	3
	1. Shipping Industry .....	3
	2. Shipbuilding Industry .....	4
CHAPTER III	PRESENT SITUATION OF SHIPPING INDUSTRY	5
	1. Domestic Shipping .....	5
	2. Ocean Shipping .....	6
	3. Fishing Boats .....	6
	4. Others	6
CHAPTER IV	PRESENT SITUATION OF SHIPBUILDING INDUSTRY	6
	1. Shipyard .....	6
	2. Dockyard .....	7
	3. Effort to be measured .....	8
CHAPTER V	PRESENT SITUATION OF SHIPBUILDING RELATED INDUSTRY	9
CHAPTER VI	PROSPECTIVE OF SHIPBUILDING AND SHIPREPAIR IN INDONESIA	12
	1. General .....	12
	2. Demand for New Ship .....	12
	3. Demand for Repairing .....	13

Chapter I

INTRODUCTION

1. Back Ground

- 1.1. Indonesia is an archipelagic country, consisting of more than 13.000 islands, extending about 3.000 nautical miles from east to west and 1.000 nautical miles from north to south. Realizing the geographical location of Indonesia which consist of thousand of islands and separated by big oceans, The People's Consultative Assembly which has the highest authority in this country, issued letter of decree NO. IV stated that Indonesia is under one unity in politics, social & cultures, Economy and Defense System.
- 1.2. To carry out the above objective , it is no doubt, the development should be fully supported by communication sector, especially vesels as seatransportation as well as shipbuilding industry as their supporting structure. To reach the above goal, it is necessary to have a development planning in this particular sectors in a right direction. As a matter of fact it is very interesting, however, that the vital and essential condition of shipping and shipbuilding industries in Indonesia have not been solved satisfactorily.
- 1.3. The above circumstances are very complicated, among others are Caused by shortage of national capital, financial difficulties, poor management, lack and want of technologies and institut-ion drawbacks that make it hard to acquire marine equipment, parts, etc.

Chapter II

GOVERNMENT ACTION

1. Shipping Industry.

Various policies, measures and steps were taken by the government to rehabilitate and upgrade the capacity of shipping industry to support the economic development. The rehabilitation program particularly concerned the interisland fleet and covered the following measures :

- 1.1. Re-structuring the age of ships by ;
  - 1.1.1. Scrapping old-age ships
  - 1.1.2. Rehabilitation of ageing ships which are economically still viable
  - 1.1.3. Purchase of second-hand ships of 5 - 10 years age
  - 1.1.4. Purchase and building new ships
- 1.2. Creation of a National Fleet Development Corporation to assist the development of shipping companies and shipyards through purchase of ships and sell or lease the ships to the shipping companies.
- 1.3. Creation of Marine Department at the Development Bank of Indonesia to handle maritime financial matters.
- 1.4. Employment of advisory teams to assist the planning and development of shipping industry.
- 1.5. Rationalization of shipping companies operating in the inter-island trade.
- 1.6. Regulating the interisland shipping through an operational scheme based on Regular Liner Service System, due to its vital

position and role for the economic well being and the security of the nation.

- 1.7. Government aid for training and upgrading of personal engaged in shipping business.
- 1.8. Reduction and exemption of certain taxes and duties for the benefit of shipping companies.
- 1.9. Etc.

## 2. Shipbuilding Industry

The government also carried out rehabilitation and development program for the shipbuilding industry to strengthen its capability and competitiveness. The program covered such step as :

- 2.1. Developing the capability and capacity of shiprepairing sector to be able to dock and repair the national fleet by replacing step by step oldyard machinery and equipment with new and modern ones such as automatic welding, modern testing equipment etc.
- 2.2. Developing the capability and capacity of new building yard in order to be capable of building new ships to meet the scrapping and development demand of the national fleet.
- 2.3. Abolishment of sales tax for new building and repair of ships.
- 2.4. Exemption of import duty for ships material, machinery and equipment.
- 2.5. Training and upgrading of shipyard workers and staff members.
- 2.6. Employing the services of management advisory experts from foreign yards to train and upgrade Indonesian yards management.
- 2.7. Elevating the capacity and capability of Indonesian Classification Bureau.



- 2.8. Lowering tariff of land lease for shipbuilding use.
- 2.9. Promoting the development of shipbuilding facilities through domestic investment as well as foreign investment.

### Chapter III

#### PRESENT SITUATION OF SHIPPING INDUSTRY

The strength of Indonesian Merchant Fleet now is about 4.700.000 DWT and could be divided into domestic shipping, ocean shipping and fishing boats. \*)

#### 1. Domestic Shipping

The domestic shipping is classified as follows :

- 1.1. Interisland shipping, 371.000 DWT, which consists of Regular Liner Service and non Regular Liner Service. The size of ships lies between 300 - 5.000 DWT.
- 1.2. Local Shipping or coastal with limited navigation along coastal region of about 200 miles distance, 143.000 DWT. The ship's size up to 300 DWT.
- 1.3. Pioneer shipping, 22.000 DWT, subsidized by the government to keep minimum communication necessary for the social benefits of inhabitants living in isolated.
- 1.4. Special shipping or industrial carrier, carrying exclusive cargo such as fertilizer, oil, nickel, bauxite, asphalt e.t.c, 2.850.000 DWT
- 1.5. Traditional shipping, consist of motorized or unmotorized wooden sailing boats.

\*) including hire purchase and chartered ships.

## 2. Ocean Shipping

Despite no historical experience, Indonesia had been doing fairly well in the ocean going shipping service and had gained moderate achievement through its 25 years of operational experience both in tramp as well as in liner shipping. The total of which amounting 1.400.000 DWT.

## 3. Fishing Boats

Powered fishing boats are increasing rapidly during the past 10 years. This is due to Government measures to promote mechanization and modernization of fishing industry. Joint venture and newly established fishing companies own about 150 steel fishing boats of 50 GT and up.

## Chapter IV

### PRESENT SITUATION OF SHIPBUILDING INDUSTRY

#### 1. Shipyard

There are many shipyards located at various region through out the country. Most of them are small scale shipyards both wooden as well as steel shipyards producing barges and small boats. So far there are only 4 shipyards having new building capacity up to 6.000 DWT, 5 shipyards of 3.000 DWT class capacity and about 5 shipyards of 500 - 1.000 DWT class capacity. The following tables 1 and 2 denote number of companies and production capacity of shipyards in Indonesia.

TABLE NO. 1 NUMBER OF COMPANIES

YARD	NUMBER OF COMPANIES
Steel Shipyard	75 ( 10 state - owned )
Wooden Shipyard	14
FRP Boat Yard	15
Ferro Cement Yard	3
Small Repair Yard	38

TABLE NO. 2 PRODUCTION CAPACITY OF NEWBUILDING FACILITIES

Newbuilding installed capacity	45.355 GT/year
Average annual newbuilding production	20.000 GT/year
Biggest newbuilding berth capacity	8.000 GT
Total number of building berth	104

## 2. Dockyard

In contrast to the shipbuilding facilities, the repairing ones are of considerably large capacity. The total installed capacity of docking facilities about 150.000 DWT. Ships dock in Indonesia during the last 2 years, average 1.200.000 DWT annually, which means an average docking days about 16 days/ship. To meet the ever expanding fleet, existing docks are now being enlarged, new docking facilities are being constructed. At the end of 1986, docking facilities are expected to reach 2.300.000 BRT. The following table No.3, 4 and 5 denote the production capacity of docking facilities.

TABLE NO. 3 PRODUCTION CAPACITY OF DOCKING FACILITIES

Docking installed capacity	104.000 G.T or 1.400.000 G.T./year
Biggest floating dock capacity	20.000 G.T.
Biggest shipway capacity	1.200 G.T.
Number of docks	140

TABLE NO. 4 DOCK CAPACITY FOR REPAIRING

Class (G.T.)	0-100	100-500	500 - 1.000	1.000 - 5.000	5.000 - 15.000	Total
Total (G.T.)	7.840	11.050	8.940	27.180	35.680	90.690
No Docks/ shipways	86	27	9	13	5	140

TABLE NO. 5 DOCKING FACILITIES

<u>FACILITY</u>	<u>UNIT</u>	<u>TOTAL CAPACITY IN DWT</u>
Floating docks	15	94.500
Graving docks	14	30.000
Shipways	107	26.300
Side - tracks	2	7.600
Repair basin	2	600
T o t a l	130	158.500 DWT

3. Effort to be measured

As the level of shipbuilding and docking facilities, business management, technics and technology, and the growth of related industries is not high enough, it is necessary for the shipyards and dockyards to improve themselves for reinforcing their facilities. It is the mission of shipyards and dockyards to make an effort to shorten the time necessary for building and repairing and supply ships with sufficient quality at adequate price satisfying the requirement of costumers.

Chapter V

PRESENT SITUATION OF SHIPBUILDING RELATED INDUSTRY

Related industry to shipbuilding is an integration of industries that manufacture goods of about 200 kinds such as main engine and other machinery as well as out fitting equipment and components which amount to about 40 % of the total price of the ship.

As the shipbuilding industry in Indonesia is at its early stage of development where the production of new ships is still very low, so the shipbuilding related industry is limited only to assembling of Diesel engines of small size and other manual driven machinery such as hand steering gear, safety equipment, small size of anchors, wire ropes, jute fibre ropes etc, while other equipment such as bigger main engine, shafting, electric facilities, electric accessories, pumps, compressors, purifiers, heat and cool exchanger, mechanical/hydraulic/electric steering gears, mooring and deck equipment, cargo gears, valves and cocks, mautical instruments, radio equipment are still to be imported. The following table No. 6 shows name and address of 17 enterprises of the manufacturer of equipment and components for ship.

TABLE NO. 6 NAME AND ADDRESS OF SHIPBUILDING RELATED INDUSTRY  
PRODUCING SHIP EQUIPMENT AND ACCESSORIES

NO.	NAMA OF COMPANY	ADDRESS
1.	PT. Bharata Multi Engineering	Jl. Ngagel 109 Surabaya
2.	PT. Ungaran M.E.	Jl. Jend. Gatot 179 Ungaran Jawa Tengah
3.	PT. Boma Bisma Indra	Jl. P. Lumumba 153-157 Surabaya
4.	PT. S - I	Jl. Laks. R.E. Martadinata Jakarta
5.	PT. I.K.I.	Kampung Butta-Butta Ujung Pandang
6.	PT. Koja	Jl. R.E. Martadinata Jakarta
7.	PT. Karta Putra	
8.	PT. Adhiguna Shipyard	Jl. Dindang Laut Jakarta
9.	PT. Budi Darma	Jl. Celincing Cakung Jakarta
10.	PT. Wayata Kencana	
11.	PT. Trigantido	Jl. Jepara No. 28 Tanjung Periuk
12.	PT. Wonosari Jaya	Jl. Kerto Paten 21 Surabaya
13.	PT. Bripindo Jaya	Jl. Tambun, Bekasi
14.	PT. Kali Raya	Jakarta
15.	PT. Inti	
16.	PT. Trans AVIA	
17.	PT. Hansuma	Jl. Ir.H.Juanda 474 Bandung

NO.	NAME OF COMPANY	ADDRESS
18	PINDAD	Bandung
19.	PT. R.F.C.	Bandung
20.	PT. Inka	Jakarta
21.	PT. Indalon	
22.	PT. Industri Bandung	Bandung
23.	PT. Wisnu Trad Co	Jl. Kramat Raya I/42 Jakarta

Chapter VI

PROSPECTIVE OF SHIPBUILDING AND SHIPREPAIR IN INDONESIA

1. General

The most important thing for the development of shipbuilding industry is how to provide the shipyards with works. Even the facilities of shipyards and dockyards are improved enough and their technical levels are raised sufficiently, if the amount of work is not provided enough for them, the development of shipbuilding cannot be expected. In order to secure the amount of work for shipbuilding industry, we have to know the demand of ships to be built and be repaired, and bring this forecast demand as the actual demand. With the development of Indonesian economy and growth of demand for tonnage, demand for new shipconstruction and shiprepair reach to a considerable amount.

2. Demand of new ships

Various studies had been done to determine the demand of ships, among others as in the following table no. 7, which had been conducted by joint team between Directorate General of Basic Metal Industry and Japan Corporation Agency in 1978. Pioneer shipping, Industrial carriers and ocean shipping are not included here .



TABLE NO. 7 ESTIMATED DEMAND FOR NEWLY BUILT SHIP

YEAR	0 - 100 GT	100 - 500 GT	500 - 1.000 GT	1.000 - 5.000 GT	TOTAL
1980	870	16.300	10.250	24.750	52.170
1981	1.000	17.200	10.250	24.750	53.200
1982	1.170	18.300	10.250	24.750	54.470
1983	1.360	19.500	10.250	24.750	55.860
1984	1.580	20.900	10.250	24.750	57.480
1985	1.800	22.600	10.250	24.750	59.430
1986	2.120	24.500	14.750	39.600	80.970
1987	2.460	26.800	14.750	39.600	83.610
1988	2.850	29.400	14.750	39.600	86.600
1989	3.300	32.400	14.750	39.600	93.550
1990	3.840	35.900	14.70	39.600	94.090

3. Demand repairing

Estimated demand for repairing according to the study conducted by combined team mentioned above is as denoted in the following table no. 8

TABLE NO. 8 ESTIMATED DEMAND FOR REPAIRING

<u>YEAR</u>	<u>0-100 GT</u>	<u>100-500 GT</u>	<u>500-1000 GT</u>	<u>1000-5000 GT</u>	<u>5000-15000 GT</u>
1980	5.300	130.500	102.000	637.700	710.400
1981	6.100	143.700	102.000	734.000	815.000
1982	7.100	158.700	101.900	746.500	874.600
1983	8.200	174.300	106.700	761.700	934.300
1984	9.600	189.800	109.000	779.200	993.700
1985	11.100	203.400	117.600	810.300	1.057.700
1986	12.900	219.700	124.900	842.900	1.117.300
1987	14.900	241.100	130.900	876.300	1.175.900
1988	17.300	260.500	136.400	913.100	1.234.500
1989	20.100	201.700	144.500	947.700	1.293.100
1990	23.300	305.100	149.000	991.300	1.293.100

4. Conclusion

The future economic development and the more increasing industrial roles in economy, cause that the development of shipbuilding and shiprepair industries in this country have a very good prospect.

