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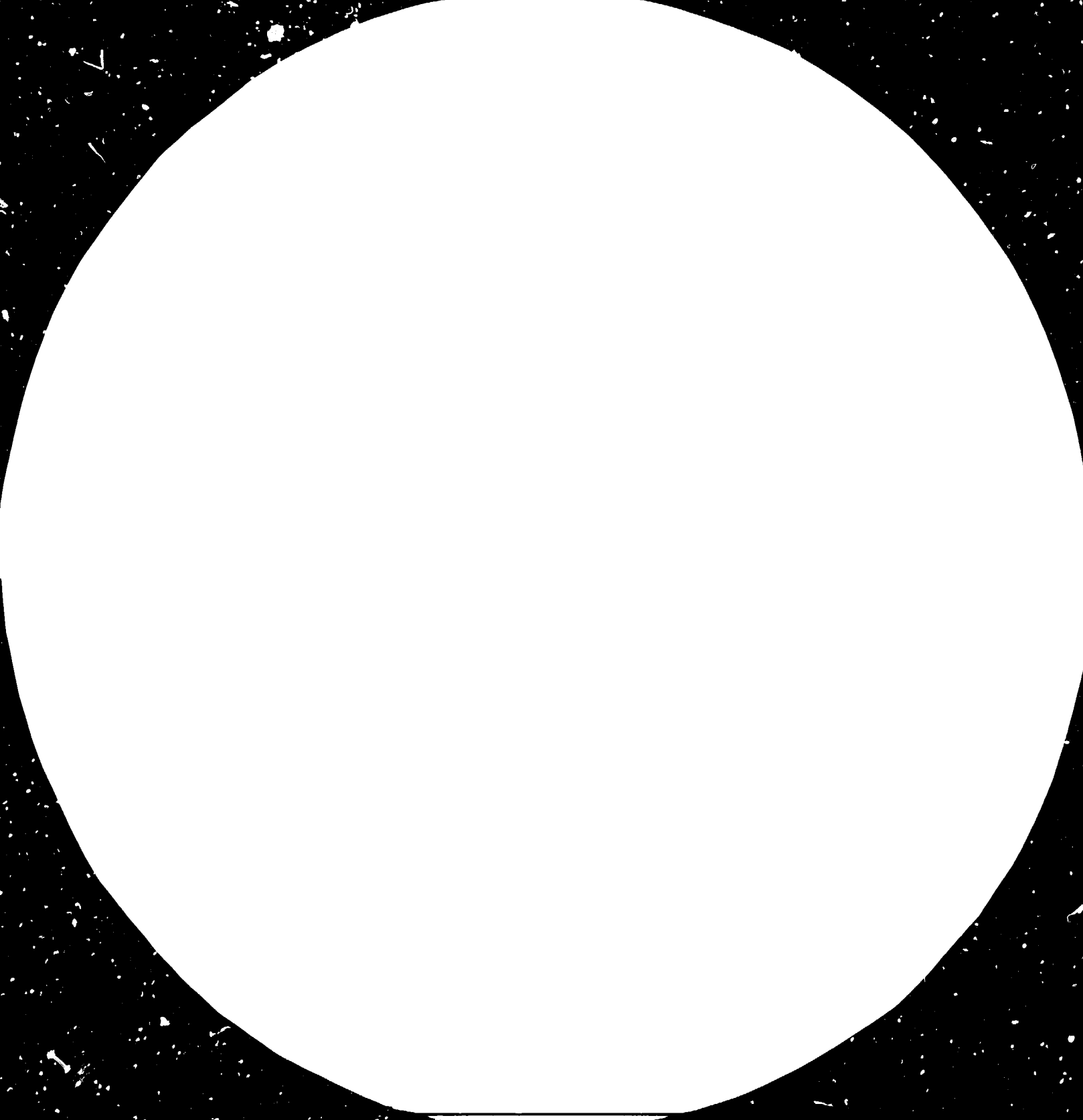
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THE PHILIPPINE SHIPBUILDING AND
SHIPREPAIR INDUSTRY*

prepared by

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I THE CURRENT SITUATION

A. PHILIPPINE DOMESTIC AND OVERSEAS FLEET

In its present level of development, the shipbuilding industry of the Philippines can more realistically strive to serve the national need for bottoms rather than get its share of international orders for ships. It would therefore be in order to look at the profile of the Philippine domestic and overseas fleet.

Table 1 gives the Philippine interisland operating fleet while Table 2 gives the Philippine registered overseas fleet.

Among the interisland passenger/cargo ships are 2 passenger/RO-RO ships which have just been recently acquired. To date, there is practically no planning for extensive RO/RO operation ⁱⁿ ports. Containerization, on the other hand, has gained more headway. One company is already planning door-to-door container service.

From a sample of 2740 vessels taken in 1962, the average age of the interisland fleet has been estimated at 11 years.

Table 3 gives the distribution by age of the overseas fleet. The greatest number of vessels, it may be noted, are in the 10-15 years bracket.

One implication of the age of the fleet is in the level of fuel consumption. In the fishing port of Navotas, north of Manila, a number of fishing boats lie idle as their owners claim that fuel costs account for about 70% of their total operating costs. A Norwegian mission, which was in the country only very recently, listed as one of its findings a figure of "greater than 50%" for the interisland fleet.

The table on the interisland fleet reveals that fishing vessels account for a large number (albeit small tonnage) of ships. This implies that the development of fishing boat technology is important. This is underlined by the fact that the mission of fishing vessels is directly tied-up to the satisfaction of a basic human necessity - food.

B. LOCAL CONSTRUCTION AND IMPORTATION OF SHIPS

Table 4 shows the number of ships built by Philippine yards in the last five years. Included are small boats that find their way into the export market. The remainder (larger vessels) are almost exclusively for interisland use, except for one 5,000 DWT tanker (built in 1979) which was built for foreign owners.

Table 5 shows the number of vessels imported for interisland and ocean-going service. Almost all these are second-hand vessels.

Table 6 shows a comparison of number and total GRT of imported vs. locally built vessels for domestic use. The overseas fleet is almost composed exclusively of imported vessels.

Table 7 shows the importation of shipbuilding materials by local yards. Unfortunately, there are no industry-wide figures for total vessel costs to show the relative magnitude of imported materials vis-a-vis local material content. If it is any indication, however, one shipyard which may build 600 TEU containerships for foreign owners, has estimated the imported content of these vessels to be 70% of total value.

C. SHIPYARD CAPACITIES

Table 8 gives the number of shipbuilding facilities and Table 9 shows the number of drydocking facilities.

The biggest shipbuilding way is for the construction of a 6500 DWT ship and the biggest repair facility can accommodate a 300,000 DWT vessel.

Currently, there is unutilized capacity both for building and repair.

Wooden fishing boat construction is still prevalent among many small yards.

II CURRENT NEEDS AND EFFORTS

In its five-year Maritime Industry Development Plan (1982-1987) the Maritime Industry Authority listed the following as the major problems of the shipbuilding industry :

1. Low demand for local construction due mainly to the preference of local shipowners for imported second-hand vessels;
2. Absence of well-developed ancillary industries;
3. Lack of qualified skills aggravated by high labor turnover;
4. Minimal technological research and development activities; and
5. High cost of available technology

In the abovementioned plan, the projected fleet replacement and addition requirements were made as the basis of a shipbuilding program.

In support of this program were outlined the following projects :

1. Development of standard ship designs. This designs are meant to be the backbone of the program and are, of course, geared towards taking advantage of the economics of series production. The project is currently being implemented with foreign assistance.

2. Establishment of a graduate degree program in Naval Architecture and Marine Engineering at the University of the Philippines. This is currently awaiting approval by University authorities.
3. Upgrading and standardization of shipyard worker skills. This project began its implementation phase late last year.

In addition to these projects, MARINA is encouraging local yards to form joint-ventures with foreign-yards to improve technology. MARINA is also taking steps to promote the development of ancillary industries. It is looking into the manufacturing of ship parts as an area of investment.

The projects and moves mentioned above involve the development of technology in vessel design and construction and of manpower capability. A third resource input, financing, is also under continuous study and may well be the most critical of the three inputs.

The challenge is to understand and prescribe the correct mix of technology, education and financing to development efforts. These three components may be converted from one form to another and the mix itself must conform to the dynamics of the development process at any point in time.

To MARINA's identified problems, may I add that our country's foreign exchange situation is currently a problem for our yards. Import restrictions hamper their production.

The proper response is for the industry to take stock of its own strengths and weaknesses and develop the capability to produce the necessary materials locally to minimize dependence on imports. Regional cooperation is an opportunity in this regard.

Regarding the local technological infrastructure for shipbuilding/shiprepair, it appears necessary that efforts have to be exerted to develop the capability for technological planning and administration. The process that technological knowledge undergoes - generation, development, acquisition, adaptation, absorption, systematization, storage, diffusion, application and protection - must be understood and a capacity to direct them developed.

In the Philippines, there exists a multiplicity of organizations, government and private, involved in one way or another with shipbuilding/shiprepair technology. They in effect constitute a de facto technological infrastructure. Singly or jointly these organizations have been involved in research, technology transfer, diffusion and application.

In general the mechanisms for "doing better than yesterday" can stand some improvement. Particularly, there is a need to develop research capabilities and to foster a vigorous exchange of technical knowledge. The process of selection, retention, monitoring and diffusion of technology transfer needs attention, as well as the recovery and development of traditional boat-building technologies.

There are several areas where research efforts may be directed :

1. Safety in interisland shipping;
2. Shipyard productivity;
3. Fuel oil consumption and alternative energy sources;
4. Evolution of local technological standards in design, construction and operation of ships

This, too, is an opportunity area for regional cooperation.

L I S T O F T A B L E S*

- Table 1 - Philippine Domestic Operating Fleet
- Table 2 - Philippine Registered Overseas Fleet
- Table 3 - Philippine Registered Overseas Fleet
(Age Profile)
- Table 4 - Number of Vessels Built Locally
- Table 5 - Vessels Approved For Importation
- Table 6 - Comparison = Locally-built vs. Imported
Vessels
- Table 7 - Approved Importation of Shipbuilding
Materials
- Table 8 - Shipbuilding Facilities
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*Source of data = Annual Statistical Report of the Maritime Industry Authority of the Philippines, 1979 to 1983.

Table 1

PHILIPPINE DOMESTIC OPERATING FLEET

1983

TYPE OF SERVICE	NUMBER OF VESSELS	% SHARE	TOTAL GRT
Passenger/Ferry	119	2.6	11,822
Passenger/Cargo	559	12.5	177,699
General Cargo	1008	22.5	441,996
Container	28	.6	51,841
Lighterage	17	.4	2,803
Barging	793	17.7	333,280
Oil Tanker	72	1.6	139,730
Towing	345	7.7	38,029
Fishing	662	14.8	32,064
Pleasure	32	.7	6,330
Pilotage	5	.1	67
Salvage	2	.04	104
Passenger/Container	24	.5	24,530
Others	14	.3	920
No Info.	799	17.8	93,892
T O T A L	4479		1,355,107*

*For 4378 vessels only

Note : Figures for DWT only partial and therefore not reflected.

Table 2

PHILIPPINE REGISTERED OVERSEAS FLEET

1983

TYPE OF VESSEL	NUMBER	% SHARE	TOTAL GRT	% SHARE	TOTAL GRT	% SHARE
GENERAL CARGO	76	29.6	433,105	14.7	659,416	13.0
BULK CARRIER	78	30.4	1,300,065	44.2	2,298,946	45.3
TANKER	10	3.9	485,919	16.5	955,743	18.8
RO/RO	2	.8	9,412	.3	13,134	.3
MULTI-PURPOSE	2	.8	19,502	.7	31,385	.6
LOG-CARRIER	12	4.7	62,419	2.1	111,851	2.2
REEFER CONTAINER	10	3.9	83,125	2.8	101,493	2.0
CAR CARRIER	8	3.1	102,887	3.5	149,069	2.1
LIVESTOCK CARRIER	10	3.9	27,923	1.0	42,641	.8
GEN. CARGO/CONTAINER	32	12.4	241,770	8.2	354,258	7.0
TUGBOAT	10	3.9	2,986	.1	13,285	.3
PASSENGER/CARGO	1	.4	18,832	.6	27,090	.5
ORE/BULK	4	1.6	147,265	5.0	303,612	6.0
REFRIGERATED CARGO	1	.4	4,966	.2	6,428	.1
FISHING	1	.4	1,581	.05	1,897	.04
TOTAL	257		(2.94 ^M)		(5.07 ^M)	

Table 3

PHILIPPINE REGISTERED OVERSEAS FLEET-AGE PROFILE

1983

AGE RANGE	NUMBER	TOTAL GRT	TOTAL DWT
0 - 4.99	42	555,165	942,412
5 - 9.99	56	797,995	1,445,614
10 -14.99	72	757,297	1,294,406
15 -19.99	53	525,503	953,271
20 and above	31	262,880	364,158
NO. INFO.	3	42,931	71,397
TOTAL	257	2.94 ^M	5.07 ^M

Table 4

NUMBER OF VESSELS BUILT LOCALLY
(All for Interisland Service)

TYPE VESSEL	1978	1979	1980	1981	1982
BARGES	35	26	42	36	35
TUGBOATS	13	7	18	18	18
TANKERS	5	5	4	1	0
FISHING	7	3	40	12	7
CARGO	5	3	8	6	30
CARGO/PASS	0	0	0	0	0
PASS/FERRY	2	1	0	0	0
SUBTOTAL	67	45	112	73	90
OTHERS*	27	34	50	24	158
TOTAL	94	79	162	97	248

*Others to include mostly small boats (Skiffboats, FRP, Light Boats) and a number of LCT's, Service/Utility Vessels and Dredgers.

Table 5

VESSELS APPROVED BY MARINA FOR IMPORTATION

FOR DOMESTIC SERVICE

	1979	1980	1981	1982
NUMBER	81	106	74	58
TOTAL GRT	81,175	46,357	27,500	23,650
TOTAL DWT	121,453	60,724	14,701	14,676
AVERAGE AGE(Yrs.)	10	11	9.5	-
TOTAL COST(US\$)	33.93 ^M	40.79 ^M	52.42 ^M	25.57 ^M

FOR OVERSEAS SERVICE

	1979	1980	1981	1982
NUMBER	59	15	22	41
TOTAL GRT	648,127	214,542	184,614	131,583
TOTAL DWT	1,083,516	407,585	205,927	328,493
AVERAGE AGE(Yrs.)	7	9	10	-
TOTAL COST(US\$)	526.20 ^M	125.30 ^M	103.30 ^M	106.54 ^M

TOTAL (DOMESTIC + OVERSEAS)

	1979	1980	1981	1982
NUMBER	140	121	96	99
TOTAL GRT	729,302	260,899	212,114	155,232
TOTAL DWT	1,204,969	468,309	220,628	343,120
AVERAGE AGE(Yrs.)	9	11	10	-
TOTAL COST(US\$)	562.13 ^M	166.09 ^M	155.72 ^M	132.11 ^M

Table 6

COMPARISON - LOCAL-BUILT VS. IMPORTED
(INTERISLAND SERVICE)

NUMBER OF VESSELS

<u>YEAR</u>	<u>LOCAL CONSTRUCTION</u>	<u>IMPORTED SECOND-HAND</u>
1979	45 Vessels	81 Vessels
1980	112	106
1981	73	74
1982	90	58

GRT

<u>YEAR</u>	<u>LOCAL CONSTRUCTION</u>	<u>IMPORTED SECOND-HAND</u>
1979	18,865	81,175
1980	45,016	46,357
1981	39,212	27,500
1982	-	23,650

Table 7
APPROVED IMPORTATION OF SHIPBUILDING MATERIALS
(US\$)

	1979	1980	1981	1982
STEEL PLATES	4.91 ^M	10.72 ^M	10.02 ^M	4.50 ^M
MAIN ENGINES & SPARES	10.41	6.26	4.21	6.16
AUX MCHU & OTHERS	34.87	44.67	58.14	20.62
OUTBOARD MOTORS	.29	.32	.30	.13
TOTAL	50.48 ^M	61.97 ^M	72.67 ^M	31.41 ^M

Others Include : electronic gear, cargo gear, anchors, winches, forklifts, propellers, shafts, lights, safety equipment, etc.

Table 9

DRYDOCKING FACILITIES
(1982)

<u>SIZE (DWT)</u>	<u>NO.</u>
BELOW 500	44
500 - 999	18
1000 - 1999	16
2000 - 2999	6
3000 - 3999	1
4000 and ABOVE	4

Table 8

SHIPBUILDING FACILITIES
(1982)

<u>SIZE (DWT)</u>	<u>NO.</u>
100 - 199	17
200 - 499	31
500 - 999	27
1000 - 1999	23
2000 - 2999	6
3000 - 3999	4
4000 & ABOVE	3

ANNEX

NATIONAL POLICIES AND GOVERNMENT INCENTIVES/
SUBSIDIES GIVEN TO THE SHIPBUILDING INDUSTRY

The shipbuilding industry has been in the country for centuries dating back to construction of Muslim vintas and galleon vessels which were used in the Manila-Acapulco trade during the Spanish era. This long history can be attributed to the importance of shipping to this archipelagic country. Filipinos have to depend on ships to transport cargoes and passengers between islands.

The Philippine government is well aware of this and has adopted timely measures to promote and develop the shipbuilding industry in order to attain a certain degree of self-reliance and sufficiency as far as the supply of ships is concerned. Government assistance to the industry is either in the form of direct incentives to shipbuilding or fiscal measures to help stimulate the demand for locally constructed vessels.

At present, the shipbuilding industry enjoys substantial incentives under the Presidential Decree No. 666 as follows :

1. Shipbuilding/repair incentives

1. Exemption from import duties and taxes.

Normally, all importation are subject to import duties and taxes or roughly 20% of landed cost. However, under PD 666, registered shipbuilders and ship repairers are entitled to duty-free importation of

machineries, equipment and materials for ship construction and/or repair provided such items are not produced locally in sufficient quantity, acceptable quality and at reasonable prices.

2. Accelerated depreciation. At their option, shipbuilders are entitled to depreciate plant and equipment for any number of years between five years and the expected economic life. Under normal depreciation, it takes a long time to recover one's investment.

3. Exemption from contractor's percentage tax. In the Philippines, gross revenues from all construction activities are taxed in the amount of three percent and this tax is called the contractor's percentage tax. Under the decree, registered companies need not pay this tax. Instead, the shipbuilders are to set aside the amount to be paid for contractor's percentage tax as a "Shipyard Development Fund" which they may use for the purpose of expansion, modernization and/or improvement.

2. Training Expenses

Another incentive being enjoyed by the industry is in connection with training. Under Republic Act 5136 as amended by Presidential Decree No. 92, deduction of labor training expenses is allowed

from taxable income, provided that training program is duly approved by the appropriate government agency and that such deductions shall not exceed ten percent of direct labor wage. This incentive is seen to promote the upgrading of the productivity and efficiency of shipyard labor.

3. Fiscal Measures

In the face of rising importation of second-hand vessels by Filipino shipowners due to the large surplus tonnage in the world market, the government has stepped in so as to avoid the collapse of the shipbuilding industry. Age, size and vessel type restrictions have been imposed by the government if it believes that the local shipyard has sufficient capability. Were it not for these fiscal restrictions, most local yards would be doing repair and conversion jobs only.

Finally, to further assist the shipyards, Presidential Decree No. 1221 was issued to require all Philippine-owned and/or registered vessels to undertake all repairs, alteration, improvement, modification, reconditioning, conversion or drydocking with MARINA-registered shipyards, although in certain exceptional cases, waivers to this requirement may be granted.

