

FINAL



Census of Fishing Boat 2006/2007

(Final Report)

Ministry of Fisheries and Aquatic Resources

Fisheries Secretariat

Maligawatta

Colombo 10

Message from Hon. Felix Perera Minister of Fisheries and Aquatic Resources

“Mahinda Chinthana” the code of governance towards a prosperous Sri Lanka has clearly identified the importance of the fisheries sector and laid down the guidelines for it’s sustainable development through maximum exploitation of marine resources in the Sri Lankan waters to enhance the livelihood of fishing communities while expanding the availability of nutritious fish at affordable prices for the common consumer.

In this massive exercise which had to be resumed at a totally paralyzed level after the Tsunami devastation of 26th December 2004, the efforts of the Sri Lankan Government heavily contributed by foreign donors was powerful enough to improve the operations of the sector by 250% during the first quarter of year 2006.

In this speedy development thrive, the correct and precise understanding of the current position of the sector in all aspects is very important to increase the accuracy of decisions made in policy development. To fulfill this requirement, Ministry of Fisheries and Aquatic Resources launched a census programme to register the fishing boats, boat owners, skippers, crew members, etc. The valuable support of the Food and Agriculture Organization (FAO) of United Nations Organization and the Icelandic International Development Agency (ICEIDA) towards the success of this project is highly appreciated. I also thank Secretary of the Ministry, staff of statistics unit of MFAR and other relevant offices for their cooperation.

This fishing boat registry which is published as one of the result sheets of the 2006/2007 census will be the statistical hand book to maximize the distribution of facilities, privileges and benefits provided by this Ministry to our fisher folks in the years to come.

Felix Perera (Member of Parliament)
Minister of Fisheries and Aquatic Resources

Ministry of Fisheries and Aquatic Resources
Maligawatta,
Colombo 10

18th October 2007

**Message from Hon. Neomal Perera
Deputy Minister of Fisheries**

It was reported that the number of coastal fishing boats in many districts are increased in number that existed before the tsunami in 26th December 2004. Coastal fishery resources reached to maximum exploitation level and government policy is to encourage fishers for offshore/deep sea fishing or fishing in international waters.

Lack of up to date and accurate information on fishing fleet is major issue in planning of fisheries development projects. Registration system for fishing boats, details of fishing crew and fishery resource information is important for sound fisheries management decisions. Therefore, fishing boat census is considered timely to ascertain the number of operating fishing boats engage in fishing operations and other related information required for fisheries management.

Increase of fish supply to meet the nutritional requirements of low income receiving groups through proper fisheries management system is main objective of the Ministry. The information collected through this census would be help for future planning of fisheries development and to evaluate the fisheries development projects

I wish to thanks Food and Agriculture organization (FAO) and Icelandic International Development Agency (ICEIDA) for providing technical and financial support to carry out the massive census.

I also thank Secretary of Ministry of Fisheries and Aquatic Resources and all other relevant personnel and the agencies for the contributions all have made to achieve commendable success in fisheries sector.

Neomal Perera

Deputy Minister of Fisheries and Aquatic Resources

Ministry of Fisheries and Aquatic Resources

Maligawatta,

Colombo 10.

18th October 2007

Message from Mr. G. Piyasena
Secretary, Ministry of Fisheries and Aquatic Resources

Detailed bench mark statistics and data on fishing fleet, boat owners, skippers, crew and other necessary information to establish systematic fishing boat registry were collected through Census of Fishing Boats in 2006/2007. This publication contains final result of the census pertaining to 12 fisheries districts namely Gampaha, Colombo, Kalutara, Galle, Matara, Tangalle, Ampara, Batticaloa, Trincomalee, Mannar, Puttalam and Chilaw.

The preliminary reports based on Fishing Boat Listing (FBL) form were published earlier for 12 fisheries districts. Brief analyses of fishing boats distribution, fish landing ports, fisheries organizations, boat registry were incorporated into these reports.

I hope that the information gathered by the Census of Fishing Boat would be immense help to understand the status of the fisheries and fishing fleet profile after rehabilitation of tsunami affected Sri Lanka.

I take this opportunity to thank the FAO and ICEIDA for their cooperation and support, Officers of the Statistics unit of MFAR, officers of the Department of Fisheries and Aquatic Resources (DFAR), officers of Marine Biology Division (NARA), Harbour Managers of CHFC, Sri Lanka Navy, officers of Department of Census and Statistics for their cooperation for the successful completion of this work.

I am also grateful to the boat owners and fishers for extending their fullest cooperation in this national endeavor.

I also acknowledge with appreciation the services of former Secretary Mr. E. Jinadasa and Director General (Development) Mr. A. Hettiarachchi.

G. Piyasena
Secretary
Ministry of Fisheries and Aquatic Resources

18th October 2007

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Census of Fishing Boat 2006/2007

Abbreviations and Acronyms

MFAR	- Ministry of Fisheries and Aquatic Resources
CCD	- Coast Conservation Department
DFAR	- Department of Fisheries and Aquatic Resources
NARA	- National Aquatic Resources Research and Development Agency
ICEIDA	- Icelandic International Development Agency
FAO	- Food and Agriculture Organization of the United Nations
SU	- Statistics Unit of MFAR
NGO	- Non Governmental Organization
DS Division	- Divisional Secretary Division
GN Division	- Grama Niladhari Division
DFI	- District Fisheries Inspector
FI	- Fisheries Inspector
FRMA	- Fisheries Resources Management Assistant
FSDA	- Fisheries Social Development Assistant
MEA	- Marine Engineering Assistant
GIS	- Geographical Information System
HP	- Horse Power
FBC	- Fishing Boat Census
FBL	- Fishing Boat List
IMUL	- Inboard Multi-day boat (Offshore fishing boats)
IDAY	- Inboard Single Day boat
OFRP	- Outboard Fiber Glass Reinforced boat
MTRB	- Motorized Traditional Boats
NTRB	- Non Motorized Traditional Boats
NBSB	- Beach Seine Boats
CFHC	-Ceylon Fishery Harbours Corporation

1. Census of Fishing Boat 2006/2007

The first Fisheries Census in Sri Lanka was held in 1972. Since then, only a fisheries census (sample survey) was conducted in 1996 for eight fisheries districts. As a result of the massive programme for replacement of damaged and destroyed boats undertaken by a large number of donors through various tsunami rehabilitation projects, the fishing fleet profile in many coastal districts has changed considerably. As reliable information on the fishing fleet and a functioning vessel registry are important for future development and management of fisheries, the Ministry of Fisheries and Aquatic Resources recognized the need for a comprehensive fishing boat census coupled with a system for identification and registration of fishing boats. Registration of all fishing boats and the establishment of a database on boat owners, skippers and crew were also accorded high priority in view of the current national security situation in Sri Lanka. Therefore, a systematic and a rational approach were made to conduct a Fishing Boat Census in 2006.

Fishing boats other than multi day (IMUL) boats and single-day (IDAY) boats are generally scattered along the entire coastline, concentrated at around 900 small landing centers. Reliable information on owners, crew, etc. and other information pertaining to fishing boats are not readily available and such information could only be collected through a well defined and executed survey operation. Although covering such a large number of scattered landing centers is a difficult and costly task, the Ministry recognized the increasing need for reliable and up-to date statistical information on fishing fleet, both from the point of view of national security and the sound fishery resource management tool.

Therefore, the Fishing Boat Census 2006/2007 was carried out with the following main objectives:

- a) To establish a functional boat registry of the operating fishing fleet by type of boat, including information on fishing gear used, navigation and communication equipment, etc.;
- b) To introduce new registration numbers to all fishing boats, as stipulated in the Government Gazette No.1392/8 – May 11, 2005 and No.1430/4 – January 30, 2006;
- c) To establish database on Fishing Ports, Fishing boat owners, skippers and crew that could be shared with security authorities.

1.1 Reference Period of Census

The reference period of the Census was from **15th October 2006 to 28th February 2007**.

2. Methodology of Census

2.1 Census Operation:

Fisheries Inspectors (FI), Marine Engineering Assistants (MEA), Fisheries Resources Management Assistants (FRMA) were trained for the field data collection within their respective areas.

Assistant Directors of the District Fisheries Offices, and the District Fisheries Inspectors (DFI), were trained for the required supervision and quality control functions under the administrative control of the Director General of DFAR. The Deputy Director (Fisheries Management) was responsible for coordinating the field arrangements relating to the Census. Technical guidance for conducting the Census was provided by the Statistician of MFAR who was responsible for overall coordination of the Census activities. Field officers and office staff were trained for the census activities are given in table 1.

Table 1: Field Data Collectors, Supervisors and Assistants of the Census

Fisheries District	AD	DFI	Data Collectors(1)	Clerks	KKS	Drivers
Batticaloa	1	2	28	2	1	1
Colombo	1	2	15	2	1	1
Negombo	1	2	29	2	1	1
Galle	1	2	22	2	1	1
Tangalle	1	2	23	2	1	1
Kalutara	1	2	24	2	1	1
Kalmunai	1	2	16	2	1	1
Matara	1	2	19	2	1	1
Puttalam	1	2	27	2	1	1
Chilaw	1	2	31	2	1	1
Trincomalee	1	2	16	2	1	1
Mannar	1	2	12	2	1	1
	12	24	262	24	12	12

(1) Data Collectors – FI, FRMA, MEA, FSDA, school leavers in some districts

The overall supervision and monitoring of census was done by the representatives of steering committee (MFAR, DFAR, NARA, CHFC and Sri Lanka NAVY) under the chairmanship of Secretary / MFAR. Additional required staff for checking, editing, coding and data entry activities was enrolled from office staff of DFAR, CCD, NARA and MFAR. Table 2 shows the number officers of head office staff engaged in census activities.

Table 2: Head office staff engaged in census activities

	MFAR	DFAR	CCD	NARA	Total
Technical staff	6	2	2	2	12
Coordinators	13	3	1	1	18
Coding/Editing/Data entry	28	18	4	6	56
Others	22	16	1	1	40
Total	69	39	8	10	126

2.2 Scope and Contents:

During the first phase of the Census, all operating fishing boats were listed at the out going port (harbour, anchorage or small landing centre “Thotupola”) using a standard form FBL – Fishing Boat List (**Annex 1**) which links each boat (by type) to its home port, including the GN Division / DS Division / Fisheries District and the Administrative District. Each fishing boat was assigned a new registration number during the listing stage. While the un-registered new boats as well as un-registered old boats were assigned new numbers, boats having registration numbers under the old system were also issued the new numbers. The model of New Registration Number given to Fishing Boats is shown bellow.

The boats which painted new registration numbers are shown in pictures below.



Information on boat owners, skippers and crew as well as the boat itself were collected during the second phase of the Census. Boat owner(s) information was recorded using the standard form FBC-1 Boat Owner (**Annex 2**) in which the owner/s also had to provide names, addresses and contact details of two referees if they are not members of any fisher organization. NIC number was compulsory for each boat owner.

Information in regard to the boat and engine, fishing gear and machinery, navigation and communication equipment, etc. as well as skippers and crew (addresses and National Identity Card numbers) were captured using the standard form, FBC-2 Boat (**Annex 3**).

2.3 Concepts and Definitions:

Some of the main concepts and definitions used for the Census are described below:

- Boat owner:** An individual or a group of individuals possessing and/or operating one or more fishing boats; wholly owned, leased or rented.
- Fisher organization:** Fisher community organizations such as Fisheries Co-operative Societies, welfare societies or any other organizations whether registered or not.
- Fishing area:** The target area of the sea where fishing is undertaken (Offshore waters, Coastal waters, Lagoon)
- Operating port:** The place (harbour, anchorage, *thotupola*) where the boat is usually anchored or from where the boat leaves for fishing operations.
- Home district:** The District in which the boat owner is permanently settled.
- Fishing boat types:**

1. **Multi day Boat (IMUL)** – Inboard engine larger vessel types capable of extended trips to sea of over one day (24 hrs) duration





2. **Inboard Single Day Boat (IDAY)** – Inboard engine boats conducting fishing trips of less than one day (24 hrs) duration
3. **Out board FRP Boat (OFRP)** – 6-7m flat bottomed FRP (Fiber Glass Reinforced Plastic) boats powered by out board motor engine (8 - 40HP).
4. **Motorized Traditional Boat (MTRB):** - Traditional craft (timber or FRP Oru, timber or FRP Vallam, timber or FRP Teppam) powered by out board motor engines of 6-25 HP.
5. **Non Motorized Traditional Boat (NTRB):** Traditional Oru, Vallam, Theppm, Kattumaram, etc., fishing without an out board motor engine.
6. **Beach Seine Boats (NBSB):** Oru, Vallam, Paru, etc used for beach seine operations with or without out board motor engine.

Target fish species: The main varieties of fish targeted by fishermen during fishing operations in the specific fishing area using specific fishing gear.

Active fisherman: A person catches marine or brackish water fish including shellfish and sea cucumbers (Crustaceans and Mollusks) on his own or as a member of a boat crew for marketing as a primary or secondary economic activity throughout the year or seasonally.

Crew member: A person other than the skipper, conducting fishing operations and other on board activities

Gear categories: The different types of fishing gear (Nets, Lines, Traps etc.) used in catching of fish.

2.4: Coverage of Census

As at 28th February 2007, 35,050 fishing boats were registered within twelve fisheries districts. 2,618 IMUL (Offshore boats), 1,038 IDAY (Single day inboard engine boats), 14,759 OFRP (Out board engine FRP boats), 1,277 MTRB (Out board engine traditional boats), 14,540 NTRB (None motorized traditional boats) and 818 NBSB (Beach seine boats) were registered. 7,628 boats operating in Northern districts will be registered once the security situation is improved.

Total coverage of the census is 82% from total boats. The coverage of census by boat type is given in table 3.

Table 3: Coverage of census of fishing boats

Boat type	Total boats	Registered boats	Coverage %
IMUL	2,618	2,618	100%
IDAY	1,157	1,038	90%
OFRP	17,835	14,759	83%
MTRB	1,854	1,277	69%
NTRB	18,206	14,540	80%
NBSB	1,008	818	81%
Total	42,678	35,050	82%

2.5: Limitations of the Census

Major limiting factors that affected in the Census are included briefly:

1. Non-availability of National Identity Cards (NIC) with many fishers. NIC information will be incorporated into the database as and when available.
2. Relocation of fisher families attached by the tsunami.
3. Difficulties to access some landings in Eastern region due to security reasons
4. Seasonal migration of some fisher families to other districts

3. Census Results

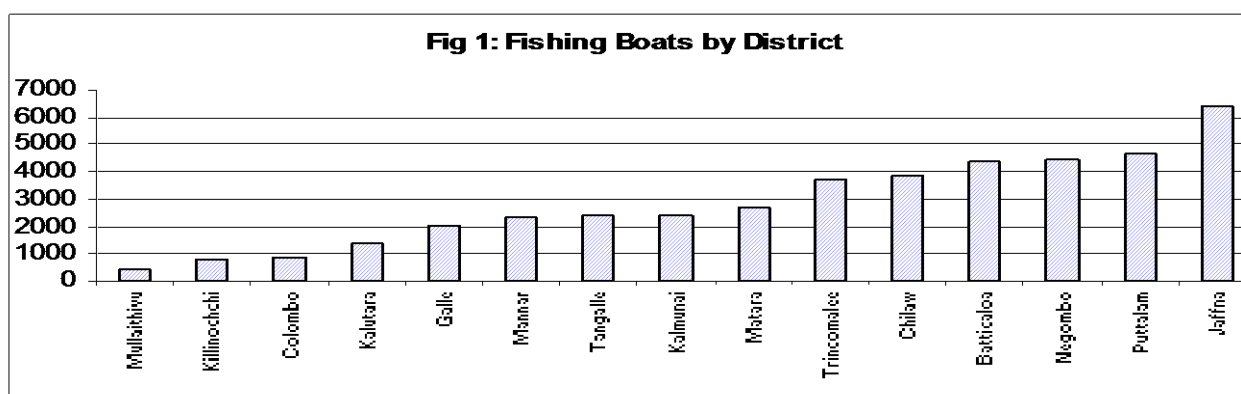
3.1 Distribution of Fishing Boats by geographical Area

The percentage distribution of fishing boats by geographical area is given in table 4. 27 percent of Multiday boats were registered in Matara district. The highest outboard engine FRP boats concentrated in Puttalam (15%) and jaffna (15%) districts. Traditional fishing boats (NTRB) are higher in Jaana (18%) and Batticaloa (15%) districts.

Table 4: Percentage distribution of fishing boats by district

	IMUL	IDAY	OFRP	MTRB	NTRB	NBSB	Total
Negombo	15%	11%	10%	0%	11%	3%	10%
Colombo	1%	3%	2%	0%	2%	3%	2%
Kalutara	12%	0%	3%	0%	3%	3%	3%
Galle	13%	3%	4%	16%	3%	5%	5%
Matara	27%	10%	5%	13%	4%	1%	6%
Tangalle	11%	2%	5%	9%	5%	7%	6%
Mannar	0%	4%	9%	9%	2%	1%	5%
Kalmunai	0%	24%	4%	14%	6%	11%	6%
Batticaloa	0%	27%	6%	0%	16%	11%	10%
Trincomalee	4%	6%	9%	0%	10%	12%	9%
Puttalam	3%	0%	15%	6%	8%	23%	11%
Chilaw	14%	0%	11%	0%	8%	2%	9%
Mullaithivu	0%	0%	1%	5%	1%	2%	1%
Jaffna	0%	10%	15%	13%	18%	14%	15%
Killinochchi	0%	0%	2%	13%	1%	3%	2%
Total	100%	100%	100%	100%	100%	100%	100%

Figure 1 shows the distribution of fishing boats district. The largest number of operating boats recorded in Jaffna district.

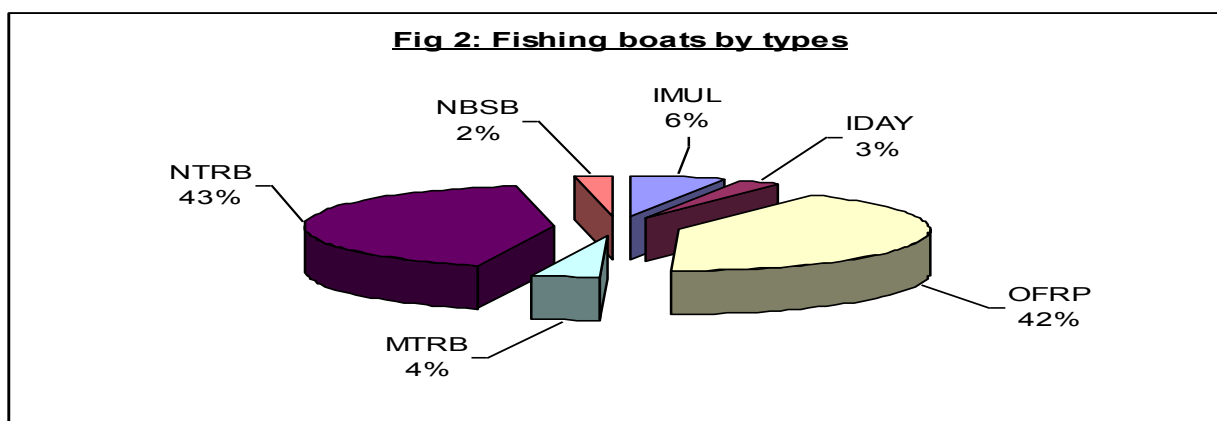


3.2 Percentage distribution of fishing boats by type of boat

Figure 2 shows that the inboard engine boats are around 9 percent, out board motor boats are around 46 percent and non motorized boats are around 45 percent.

Table 5: Percentage distribution of fishing boats by type

	IMUL	IDAY	OFRP	MTRB	NTRB	NBSB	Total
Negombo	9%	3%	42%	0%	46%	1%	100%
Colombo	2%	4%	41%	0%	50%	3%	100%
Kalutara	23%	0%	35%	0%	39%	2%	100%
Galle	17%	1%	35%	15%	29%	3%	100%
Matara	26%	4%	31%	9%	30%	0%	100%
Tangalle	12%	1%	37%	7%	40%	3%	100%
Mannar	0%	2%	72%	7%	18%	0%	100%
Kalmunai	0%	11%	30%	11%	43%	5%	100%
Batticaloa	0%	7%	24%	0%	66%	3%	100%
Trincomalee	3%	2%	45%	0%	48%	3%	100%
Puttalam	2%	0%	58%	2%	33%	5%	100%
Chilaw	9%	0%	50%	0%	40%	1%	100%
Mullaithivu	0%	0%	34%	24%	37%	5%	100%
Jaffna	0%	2%	42%	4%	51%	2%	100%
Killinochchi	0%	0%	34%	29%	33%	4%	100%
Total	6%	3%	42%	4%	43%	2%	100%



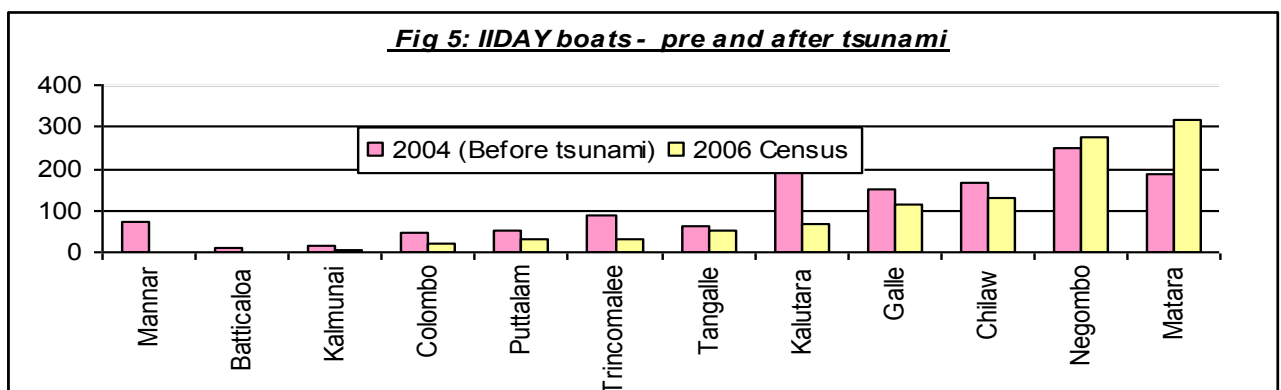
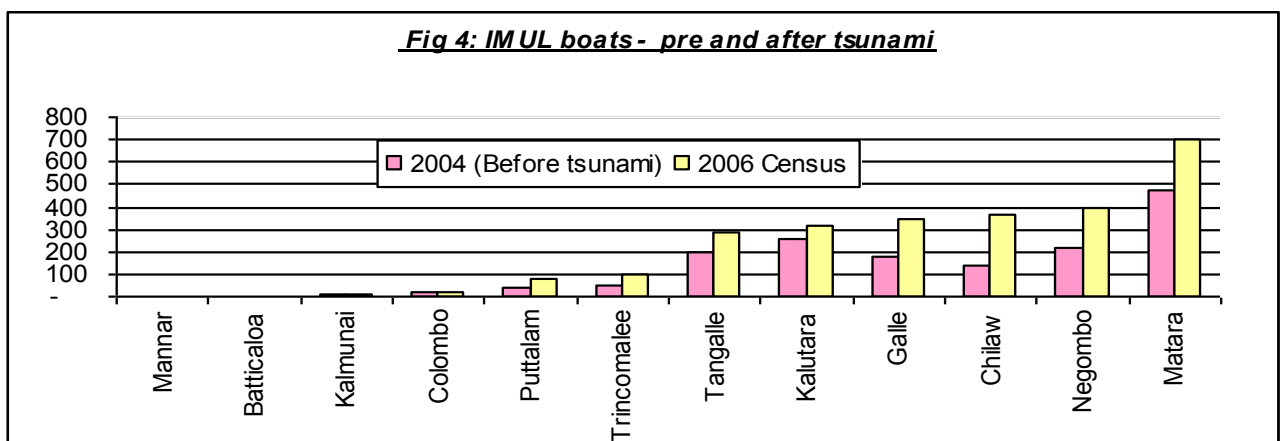
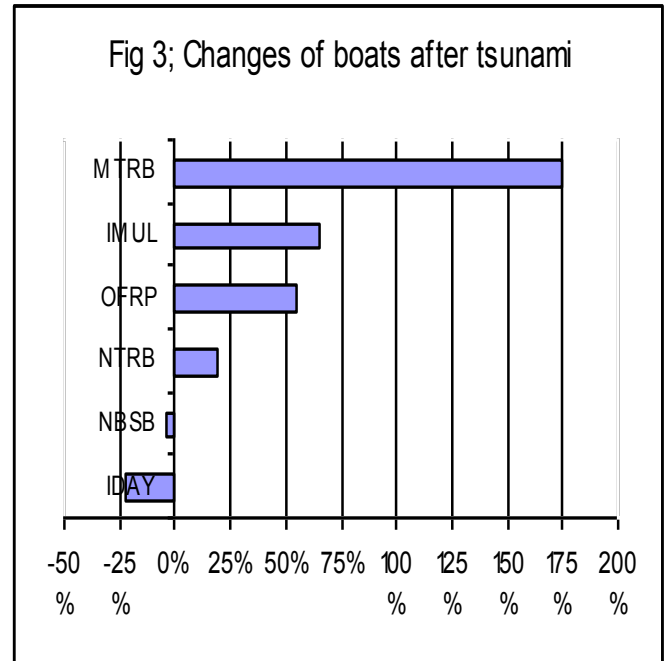
3.3 Comparison of Fishing Boats with Pre Tsunami

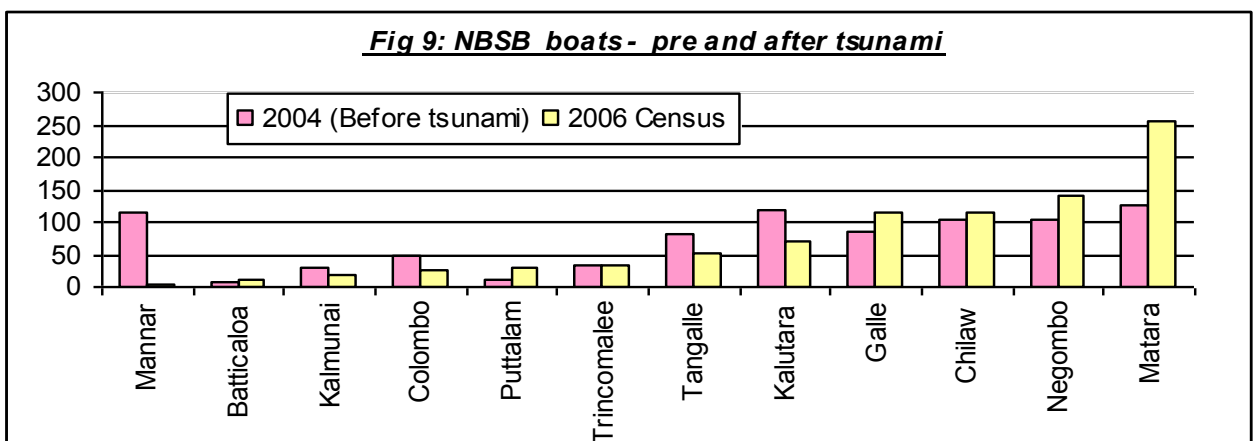
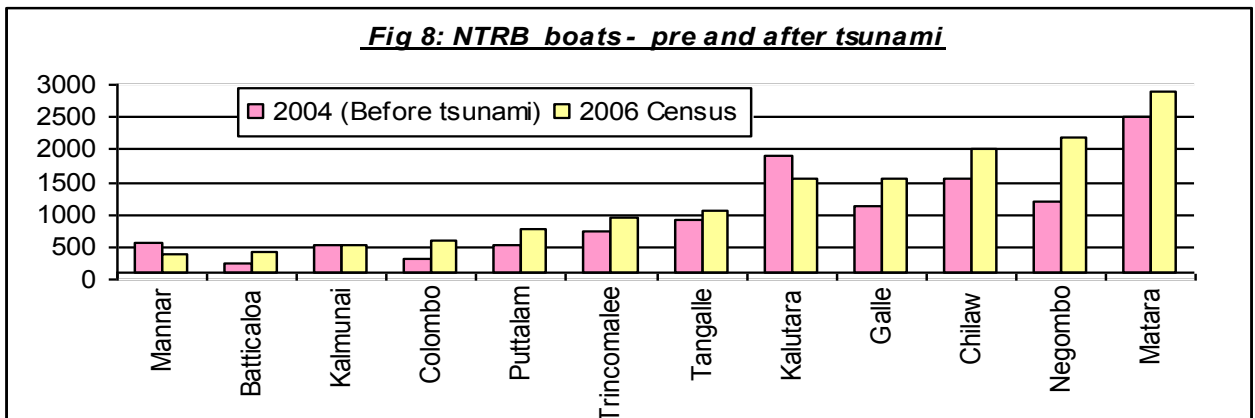
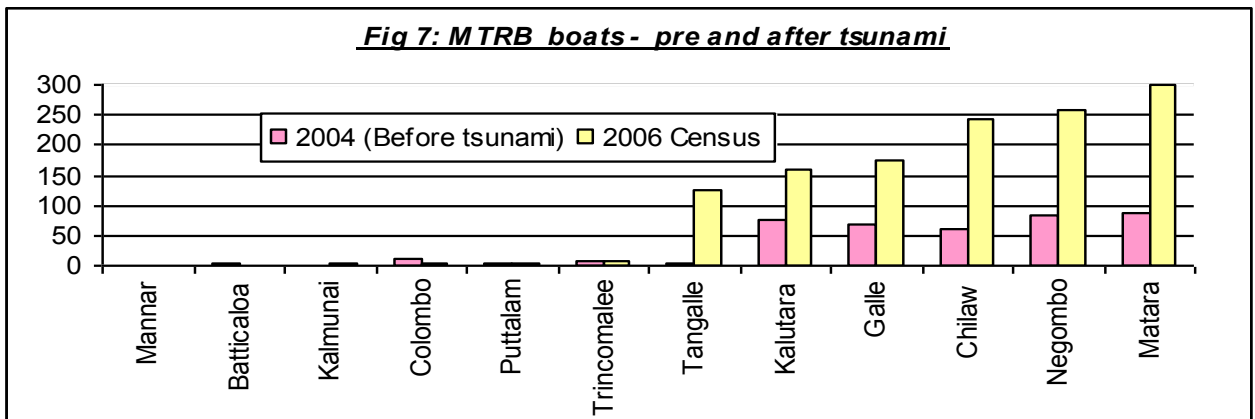
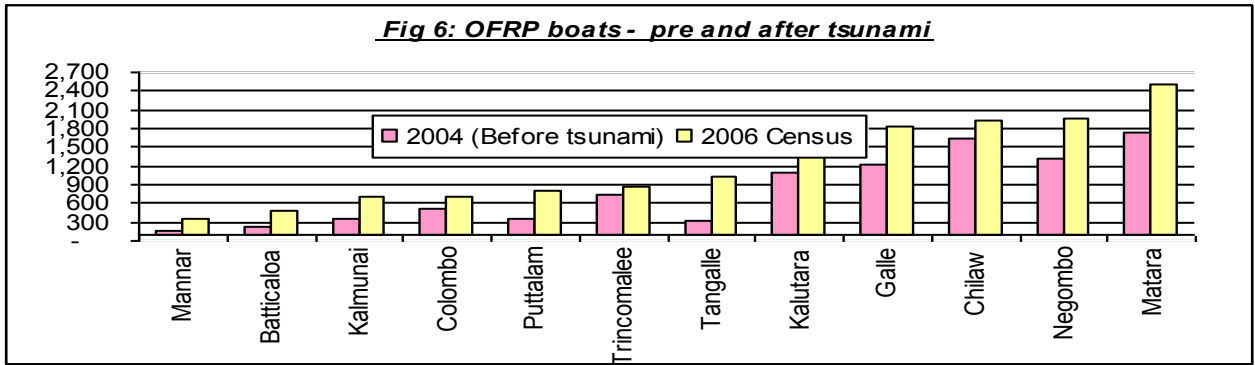
More than 80 percent of fishing fleet was damaged or destroyed by the tsunami and the Ministry has implemented several rehabilitation programmes to recover the fisheries. Large

number of boats and gears were given to fishermen by various organizations and donors after tsunami. Therefore fishing fleet in Sri Lanka has increased. **Table 6** shows that the total fleet reached to 42,678 and increase is around 35 percent. It also shows that the NBSB and IDAY boats were decreased by 4 percent and 23 percent respectively.

Table 6: Comparison of fishing boats with pre tsunami

Boat Type	2004	Census 2007	Change %
IMUL	1,581	2,631	66%
IDAY	1,493	1,163	-22%
OFRP	11,559	17,973	55%
MTRB	674	1,815	169%
NTRB	15,260	18,483	21%
NBSB	1,052	1,022	-3%
TOTAL	31,619	43,087	36%





3.4: Annual increase rates

The first fisheries census was held by the Ministry with the assistance of FAO in 1972 and the second census was carried out in 1996 with the assistance of UNDP.

Annual increase rate (Percentage) is given in table 7. Annual increase rate from 2004 to 2007 is 12 percent.

Table 7: Annual increase rates by boat types

Boat Type	1972	1996	Annual increase 1972- 1996	2004	Annual increase 1996- 2004	2007	Annual increase 2004- 2007
IMUL	874	1,130	1%	1,581	5%	2,631	22%
IDAY	1,019	1,543	2%	1,493	0%	1,163	-7%
OFRP	874	8,334	36%	11,559	5%	17,973	18%
MTRB	2,344	978	-2%	674	-4%	1,815	56%
NTRB	12,755	14,173	0%	15,260	1%	18,483	7%
NBSB	1,698	1,352	-1%	1,052	-3%	1,022	-1%
TOTAL	19,564	27,510	2%	31,619	2%	43,087	12%

3.5 Distribution of Fishing boats by length and horse power

Distribution of fishing fleet by horse power is given in table 8. Nearly 45% of fishing fleet is still traditional or not motorized. Around 20 percent of boats are using engines between 25 to 45 horse powers. Over 75 horse power engines are used around 1 percent of large boats.

Percentage distribution of fishing fleet by length and the combination of horse power and length are given in table 9 and table 10 respectively. Over 58 percent of fishing fleet is between 17 to 27 feet while 2.5 percent of fleet is between 40 to 60 feet in length. Very few boats were reported over 60 feet in length.

Table 8: Percentage distribution of fishing boat by horse power

Horse power	Percentage
Over100	0.4%
75 to 100	0.7%
45 to 75	3.8%
25 to 45	19.1%
15 to 25	16.2%
9 to 15	8.7%
Non motorized	45.1%
Engine HP not stated	6.1%
Total	100.0%

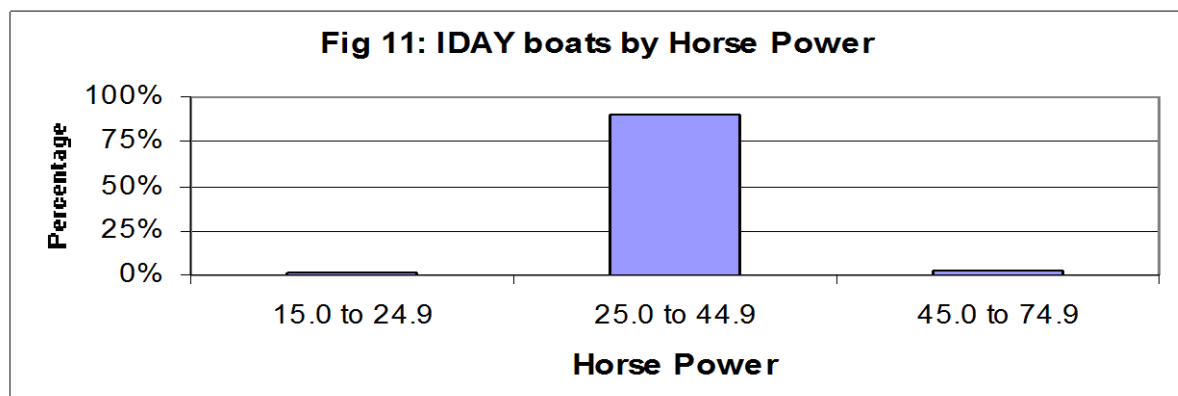
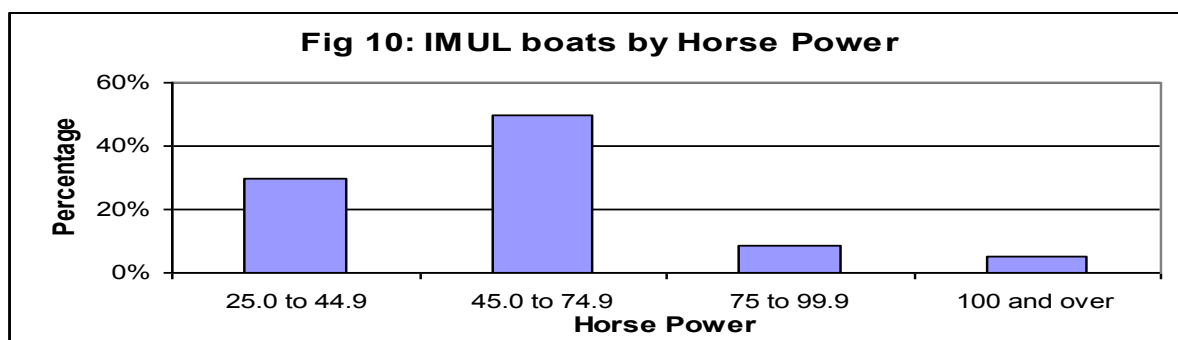
Table 9: Percentage distribution of fishing boat by Length

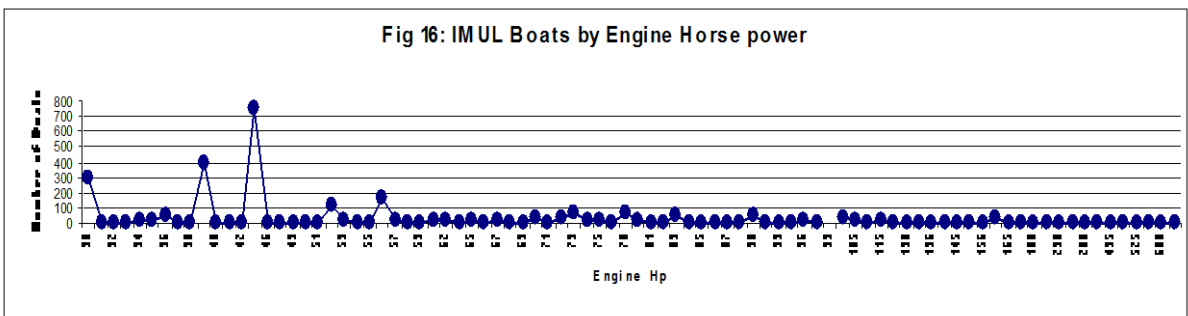
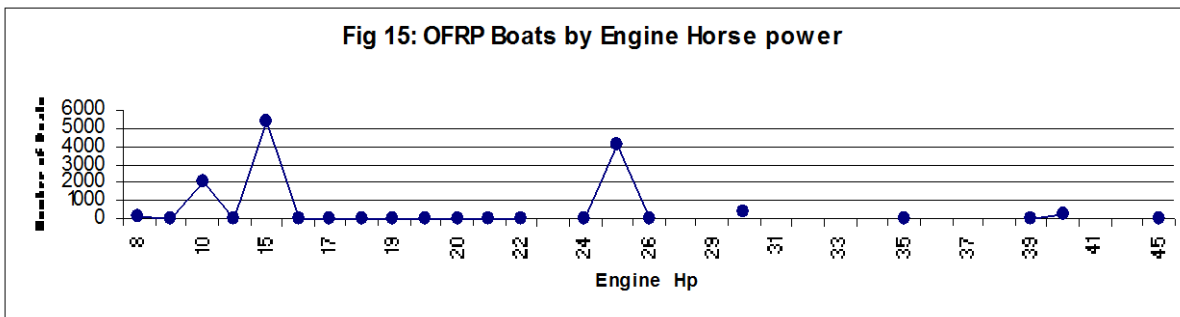
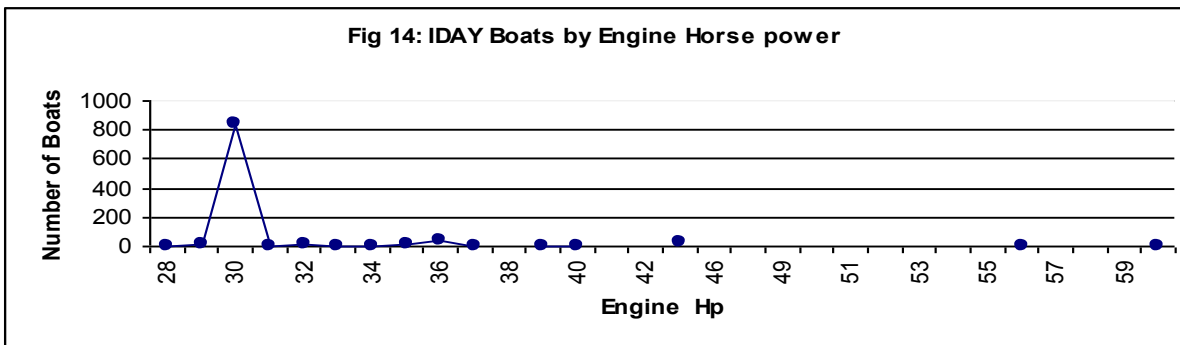
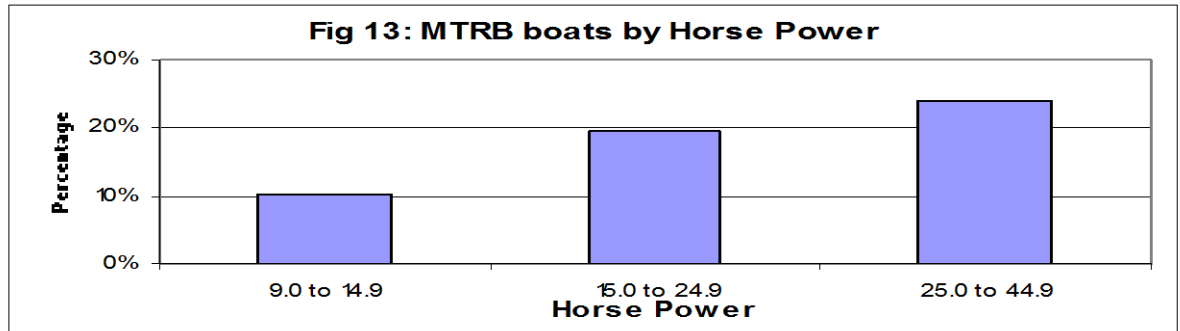
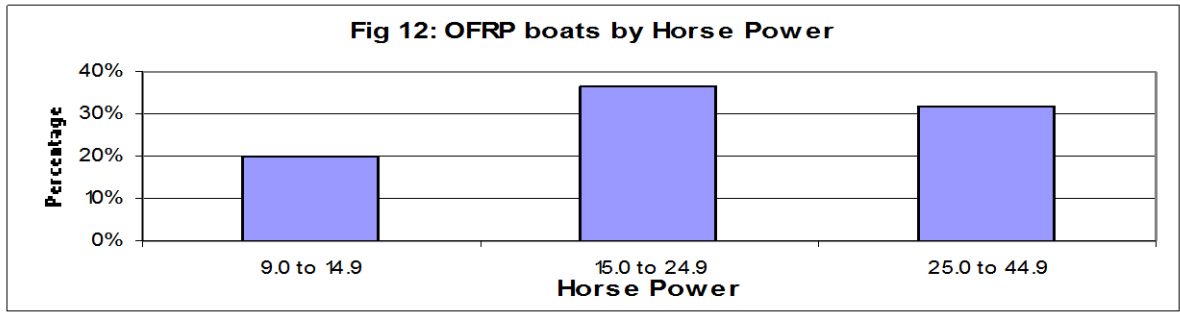
Length of Boat	Percentage
60 ft and over	0.0%
40 - 59 ft	2.5%
32 - 39 ft	8.8%
28 - 31 ft	7.1%
17 - 27 ft	57.8%
16 ft or less	21.2%
Length not stated	2.6%
Total	100.0%

Table 10: Percentage distribution of fishing boats by length and horsepower

Horse Power \ Length (Ft)	Horse Power						
	100 Hp or over	75 – 99Hp	45 - 74Hp	25 - 44Hp	15 - 24Hp	9 - 14Hp	Non Motorized
60 ft and over	1%	–	–	–	–	–	–
40 - 59 ft	91%	57%	17%	1%	–	–	–
32 - 39 ft	8%	42%	81%	15%	–	–	2%
28 - 31 ft	–	–	2%	14%	1%	–	3%
17 - 27 ft	–	–	–	70%	97%	98%	40%
16 ft or less	–	–	–	–	1%	1%	41%
Unspecified	–	–	–	–	1%	–	15%
Grand Total	100%	100%	100%	100%	100%	100%	100%

Table 10 shows the percentage distribution of fishing boats by length and horse power. Over 55 percent of multiday boats are using 45 to 74 horse power engines (fig 10). Approximately 75% of single day boats and 40% of FRP boats having the engines 25 to 45 horse power and 15 to 25 horse power respectively (fig 11 and Fig 12).





3.6 Fishing boats by Harbours, Anchorages and Landings

Landing sites are categorized into main three types namely Harbours, Anchorages and minor landing sites based on their infrastructure facilities. Fishing boats were listed using the FBL form at the operating ports and given new registration number for each boat. Percentage distribution of boats registered at the ports is given in **table 11**. Over 58 percent of Multiday boats, 40 percent of single day boats and 4 percent of FRP boats are operated through major harbours.

Table 11: Percentage distribution of fishing boat by type and Ports (Landings)

	Major Harbour	Anchorage	Thotupola	Total
IMUL	58.8%	22.3%	18.9%	100.0%
IDAY	39.5%	9.6%	50.9%	100.0%
OFRP	3.9%	6.6%	89.5%	100.0%
MTRB	0.0%	5.1%	94.9%	100.0%
NTRB	0.0%	0.0%	100.0%	100.0%
NBSB	0.0%	0.0%	100.0%	100.0%
TOTAL	7.2%	4.9%	87.9%	100.0%

Table 12: Percentage of fishing boats by port and type

	Major Harbour	Anchorage	Thotupola	Total
IMUL	61.1%	33.9%	1.6%	7.5%
IDAY	16.3%	5.8%	1.7%	3.0%
OFRP	22.7%	56.6%	42.9%	42.1%
MTRB	0.0%	3.8%	3.9%	3.6%
NTRB	0.0%	0.0%	47.2%	41.5%
NBSB	0.0%	0.0%	2.7%	2.3%
TOTAL	100.0%	100.0%	100.0%	100.0%

Table 13: Fishing boats by Major harbours and type of boat

Fishery Harbour	IMUL	IDAY	OFRP	TOTAL
Valaichchenai		242	62	304
Mutwal	4		43	47
Panadura	7	13	23	43
Galle	241	19	24	284
Hikkaduwa	77		50	127
Beruwala	291	3	62	356
Puranawella	314	15	37	366
Mirissa	125	35	127	287
Kalpitiya	34			34
Cod Bay	141	70		211
Kudawella	173	9	6	188
Tangalle	147	2	20	169
Kirinda	8		164	172
Total	1,562	166	556	2,284

3.7 Administrative divisions in fisheries sector

A list of fishing ports and landing sites was prepared linking the GN divisions, FI divisions, DS divisions, Fisheries District and Administrative District. The codes introduced by Department of Census and Statistics for GN Divisions, DS Divisions and Districts are used to link the above administrative levels. Landing sites were identified at GN division level (Lowest administrative level) and some larger landing sites/thotupola (beaches) divided into segments at GN level.

Table 14: Administrative divisions in fisheries sector

District	No. of DS Divisions	No .of FI Divisions	No .of GN Divisions	No .of Ports/Thotupola
15	65	119	676	910

3.8 Fish landing centers (Landing ports)

13 harbours, 18 anchorages and 1029 minor landing sites were listed (Table 15). The list of Thotupola in northern districts (Jaffna, Kilinochchi and Mullaithivu) was prepared by consulting the District Fisheries Assistant Directors in respective areas.

Table 15: Coastal length and shore facilities for fisheries

District	Coastal length (Km)	Km per Fish landing	Number of boats per Km	Km per Beach seine
Negombo	35.06	0.31	126	1.0
Colombo	40.34	1.55	21	1.4
Kalutara	38.96	1.03	35	1.4
Galle	94.62	1.01	21	1.8
Matara	59.28	2.04	45	5.9
Tangalle	149.33	3.39	16	2.1
Kalmunai	116.57	0.96	20	19.4
Batticaloa	122.87	0.65	20	1.1
Trincomalee	215.85	2.63	20	1.9
Mannar	320.08	6.40	12	2.7
Puttalam	284.05	4.30	16	1.3
Chilaw	142.00	2.37	27	7.1
Killinochchi	306.32	18.02	1	15.3
Jaffna	624.56	5.48	10	4.5
Mullaithivu	67.23	2.80	12	2.2
Total	2617.12	2.46	16	2.6

3.9: Boat owners, Skippers and Crew members

The FBC1 (annex-) form was used to list the boat owner(s) first owner, second owner and third owner and all boats owned by them. 87 percent of owners are owned single boats. The table 16 shows the percentage distribution of boat owners by number of boats they owned. Some indicators were calculated on boat owners, skippers and crew members are given in table 17.

Table 16: percentage of boat owners by boats they owned

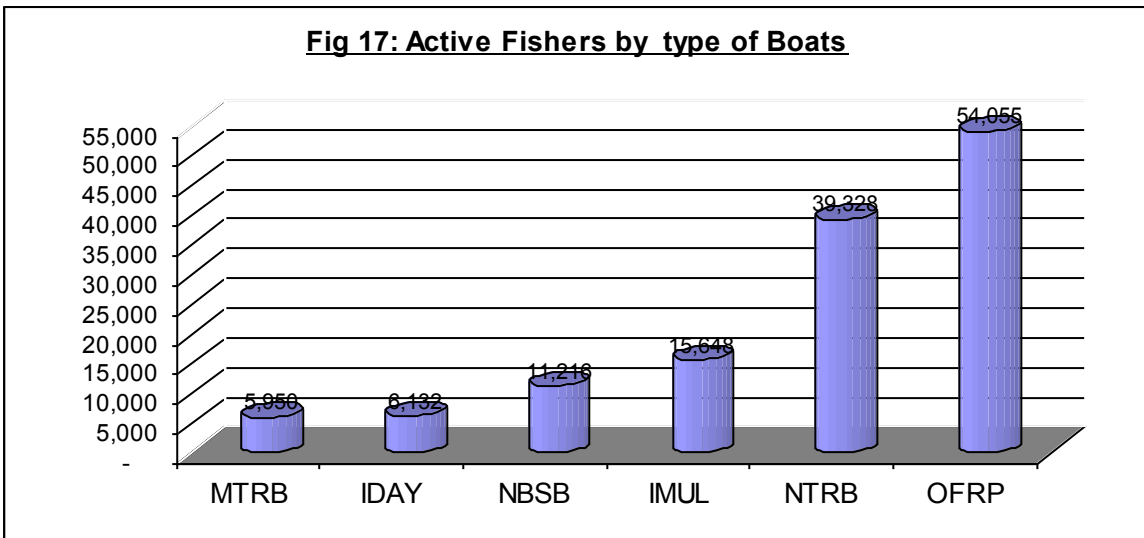
Number of Boats owned	Percentage of Boat Owners						
	IMUL %	IDAY %	OFRP %	MTRB %	NTRB %	NBSB %	Total %
Single boat	77	88	85	89	90	74	87
Two boats	17	9	11	8	8	14	10
Three boats	4	3	3	2	1	7	2
Four or more boats	2	1	1	1	1	6	1
Total	100	100	100	100	100	100	100

Table 17: Some indicators on boat owner, skipper and crew

	IMUL	IDAY	OFRP	MTRB	NTRB	NBSB
Boats per owner	1.2	1.1	1.2	1.1	1.2	1.5
Owners per boat	0.9	0.9	0.8	0.8	0.9	0.7
Skippers(other than owners) per boat	0.2	0.1	0.1	0.1	0.1	0.3
Crew size per boat	4.8	4.2	2.0	2.2	1.1	10.1

Table 18: Estimated Active fishers by boat types (Marine Sector)

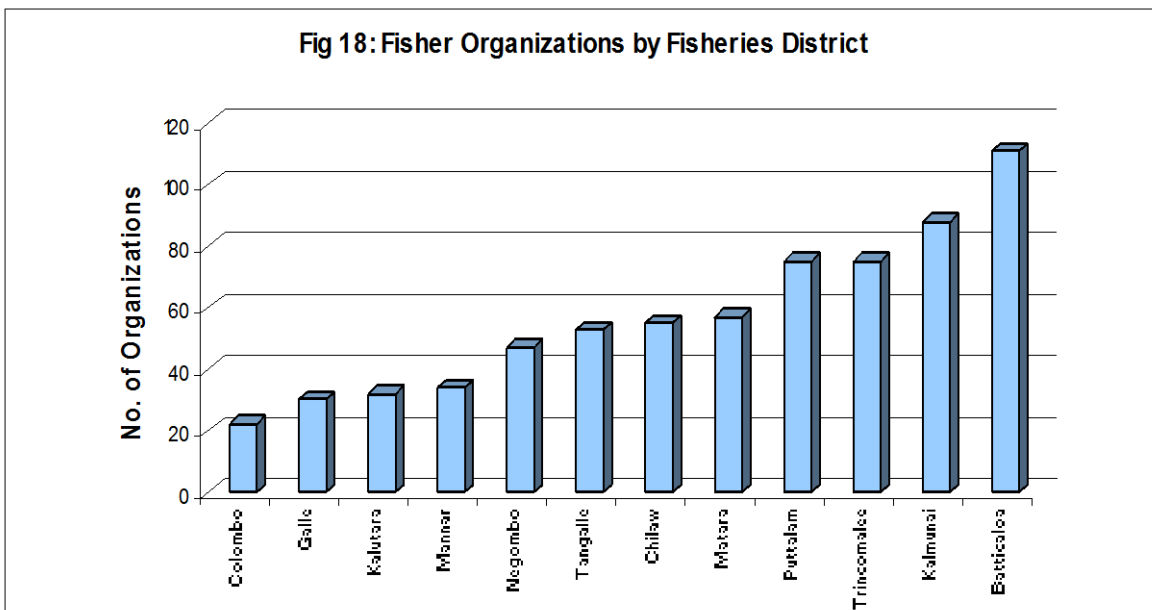
Boat type	Owners	Skippers (other than owners)	Crew	Total Active fishers
MTRB	1,629	186	4,135	5,950
IDAY	1,004	259	4,869	6,132
NBSB	681	335	10,200	11,216
IMUL	2,293	738	12,617	15,648
NTRB	16,412	2,050	20,866	39,328
OFRP	15,315	3,631	35,109	54,055
Total	37,334	7,199	87,796	132,329



3.10: Fisher Organizations

679 organizations were identified as the Fisher Organizations located within the twelve fisheries districts. Among these fisher organizations there are 530 Fisher Co-operative Societies (78%), 32 Non-Governmental Organizations (5%) and 117 Other Welfare Societies (17%). The highest numbers of fisher organizations which consist of 108 Fisher Co-operatives were reported from Batticaloa district which is 111 in number (See fig 18).

When consider the Fisheries Inspector Divisions the highest number of fisher organizations which is 23 in number was reported from Muthur in Trincomalee district, which contributes 3.4% for total fisher organizations.



3.11 Members of Fisher Organizations

The number of persons who have taken the membership in reported 679 fisher organizations is 126, 475. When describing the strength of fisher organizations, 74% of total members of fisher organizations represent Fisher Co-operatives while 15% represents Other Welfare Organizations and 11% represents Non-Governmental Organizations.

Table: 19: Percentage of Fisher Societies and Members

Type of society	Societies	Percent	Members	Percent
Fisher Co-operatives	530	78%	92,912	74%
Non- Governmental Organizations	32	4%	14,353	11%
Other & Welfare Organization	117	17%	19,210	15%
Total	679	100%	126,475	100%

3.12 Member Boat Owners in Fisher Organizations

Among the total members (126,475) of fisher organizations 14% (17,542) were boat owners. 85% of those boat owners represent Fisher Co-operatives while 14% and 1% represents Other Welfare Organizations and Non-Governmental Organizations respectively. When categorized the boat owners those who have membership in fisher organizations under each boat type they owned, 981 owners have multi-day boats.

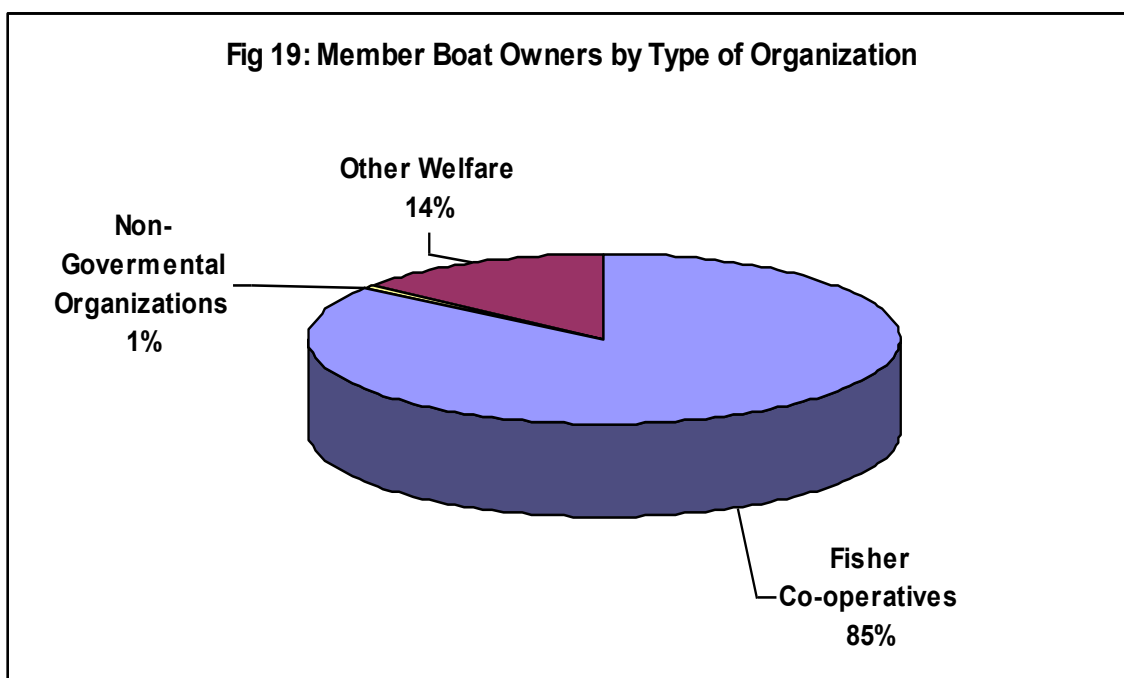


Table 20: Number of boats owned by members of Fisher Organizations

District		IMUL	IDAY	OFRP	MTRB	NTRB	NBSB	Total
1	Colombo	3	9	225	-	247	18	502
2	Negombo	152	94	1,128	-	1,026	15	2,415
3	Kalutara	43	1	70	-	184	5	303
4	Galle	47	3	190	90	174	9	513
5	Matara	191	50	334	97	293	2	967
6	Tangalle	167	17	484	115	690	37	1,510
7	Mannar	-	51	1,263	118	337	4	1,773
8	Kalmunai	2	139	546	179	759	61	1,686
9	Batticaloa	1	291	842	4	2,442	91	3,671
10	Trincomalee	94	69	1,450	2	1,920	96	3,631
11	Puttalam	53	-	2,329	99	1,237	221	3,939
12	Chilaw	222	-	821	-	695	6	1,744
Total		975	724	9,682	704	10,004	565	22,654
Total Boats Reported in Fishing Boat Census		2,618	1,038	14,759	1,277	14,540	818	35,050
Percentage %		37.2	69.7	65.6	55.1	68.8	69.1	64.6

3.13 Fisher Co-operative Societies

Among 530 Fisher Co-operatives, the highest number of Fisher Co-operatives which is 108 in number was located in Batticaloa District. 92,912 persons have taken the membership in these 533 Fisher Co-operatives and 16% of those members were boat owners. When categorized the boat owners those who have membership in Fisher Co-operatives under the each boat type they owned, 913 have multi-day boats. The member boat owners of Fisher Co-operatives are having 19,370 boats which are 55% of total boats reported in Fishing Boat Census – 2006.

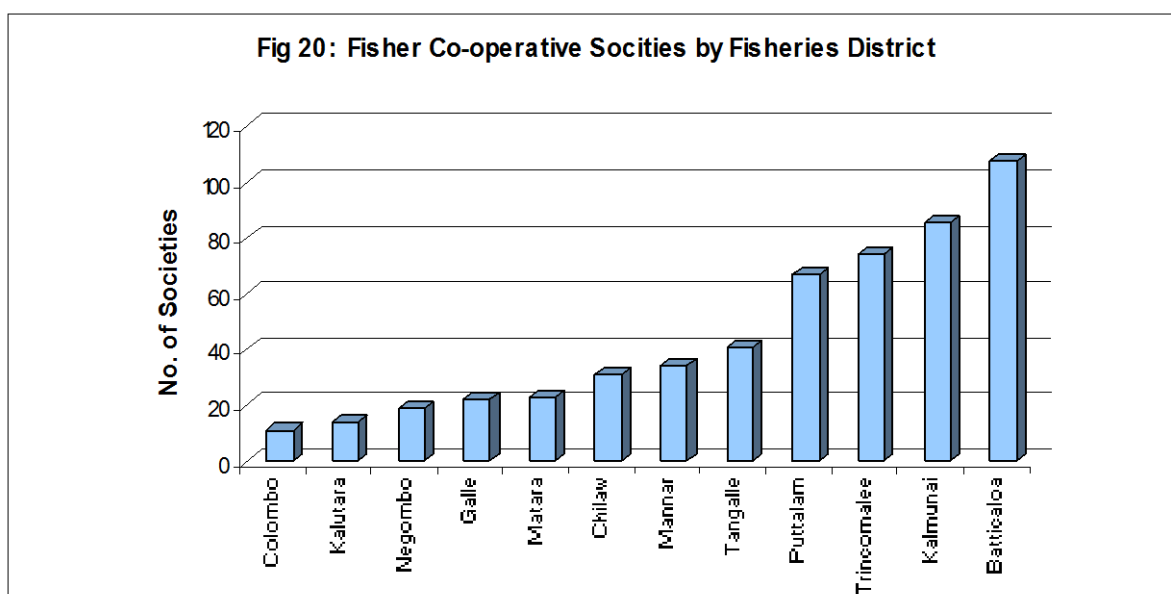


Table 21: Percentage of members and boat owners in Fisher Cooperative Societies

Fisheries District		Total No. of Members	Percentage	No. of Boat Owners Having Membership	Percentage t total members
1	Colombo	779	1%	338	43%
2	Negombo	5,008	5%	636	13%
3	Kalutara	1,461	2%	151	10%
4	Galle	1,589	2%	272	17%
5	Matara	3,418	4%	460	13%
6	Tangalle	17,660	19%	1,111	6%
7	Mannar	7,315	8%	1,423	19%
8	Kalmunai	9,830	11%	1,202	12%
9	Batticaloa	16,376	18%	2,904	18%
10	Trincomalee	15,455	17%	2,484	16%
11	Puttalam	7,887	8%	2,733	35%
12	Chilaw	6,134	7%	1,206	20%
Total		92,912	100%	14,920	16%

Table 22: Number of Boats owned by the Members of Fisher Cooperatives

District		IMUL	IDAY	OFRP	MTRB	NTRB	NBSB	Total
1	Colombo	3	9	211	-	203	12	438
2	Negombo	108	63	282	-	323	1	777
3	Kalutara	43	1	55	-	112	5	216
4	Galle	47	3	101	83	151	7	392
5	Matara	183	46	183	51	200	-	663
6	Tangalle	166	17	481	110	668	26	1,468
7	Mannar	-	51	1,263	118	337	4	1,773
8	Kalmunai	2	139	487	173	721	59	1,581
9	Batticaloa	-	41	836	4	2,424	91	3,396
10	Trincomalee	94	69	1,271	2	1,868	96	3,400
11	Puttalam	51	-	2,282	87	1,200	137	3,757
12	Chilaw	210	-	749	-	545	5	1,509
Total		907	439	8,201	628	8,752	443	19,370
Total Boats Reported in Fishing Boat Census		2,631	1,044	14,897	1,238	14,817	832	35,459
Percentage %		34.6	42.3	55.6	49.2	60.2	54.2	55.3