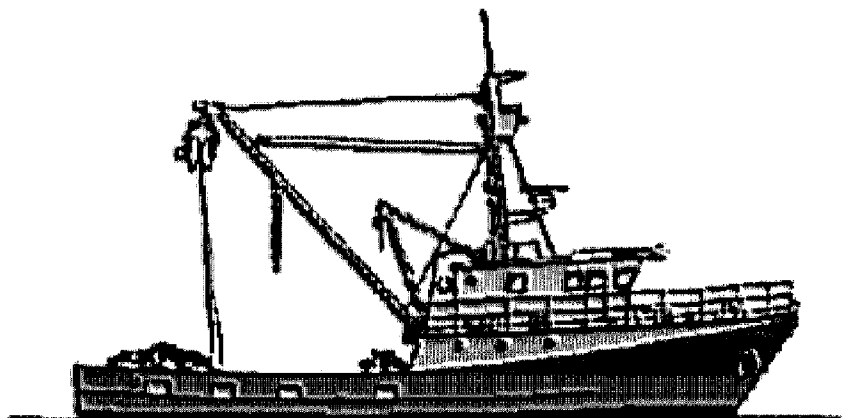




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Purse-Seine Operations in Papua New Guinea



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PURSE-SEINE OPERATIONS IN PAPUA NEW GUINEA

Background

Most of tuna catch in Papua New Guinea waters is caught by purse-seining. Sets by purse-seiners were at one stage based mainly on logsets and Free schools. To-day a great number of sets are on anchored Fads. The Philippine operations as well as the domestic operation is based almost exclusively on Fads.

Fleet structure

There are 139 purse -seiners which have access to fish in PNG waters. Twenty four (24) of these fish mainly on Anchored Fads.

Table 1. Total purse seine with access to PNG waters.

Agreement type	Vessel nationality	Number of vessels	Primary type of operation
Access	Korea	26	Free schools
	Taiwan	42	Free schools
	Philippines	12	FADS
FSM	Vanuatu	6	Free schools
	Micronesia	4	Free schools
	Solomon Islands	1	Free schools
	Marshalls	5	Free schools
	Kiribati	1	Free schools
Domestic	Papua New Guinea	12	FADS
Multilateral (US)	United States	30	Free schools
		139 purse -seiners	

The DWFN operations

Korea and Taiwan are the most countries that are fishing in the PNG waters. Koreans operation is based mainly on free schools and occassional logsets. The Taiwanese also fish free schools but they are also using drifting Fads. The Philippine operation in PNG is based almost exclusively on Achored Fads.

The moored FAD operations

The number of Fads as per company information is about 700 Fads. But in reality there may be close to about 2000 Fads. Table 2 gives the number of fads by company deployed in the last three years only, but does not give the number of Fads deployed before 1999. The companies involved Fad fishing are allowed 50 Fads per vessel.

Table2. Number of Fads by company

Company	Number of catcher vessels	Number of Fads in archipelagic waters	Total number of Fads	Average Fad per vessel	Date of Deployment
RD	9	362	365	41	31/01/01
Frabelle PNG	3	54	54	18	Jan/Mar-01
Frabelle Philippines	7	0	92	13	Mar/Apr -01
Pacific Blue sea	3	0	130	43	Oct-99 Jun/Oct-00
Safi	2	0	52	26	April-01
Total	24	416	693	29	

Fad fishing operation

Surveys on fads are done by the tender vessels commonly referred to as ranger or light boats. In the absence these vessels, the catcher vessel or a mother-ship in some instances would check on the Fads. Each catcher has on average about 3 tender boats and each tender boat can survey on average up to 10 Fads per day, thus a total of about 30 fads checked per day. Fad surveys are done during the day and any Fad found to have enough fish is marked with a Radio buoy. Several Fads can be marked but only one Fad is set upon each day. The choice made is based on the size of fish and the size of the school. The school size is in turn based on the availability of storage space on the catcher. The captain of the catcher who in most cases is the fishing master makes the decision as to which Fad to set on. During the Fad surveys the ranger or light boats are always in contact with the catcher vessel.

Three methods are used in surveying the Fads. These are the sonars, divers and handlining.

Sonars- the vessels comes along side the Fads and the side scanning sonars are used to asses the fish size and tonnage available under the Fad.

Divers – Where sonars are not available, a diver dives and asses the fish size, school size, species composition , possible tonnage available and the depth at which the fish are.

Handlining- handlining is used if the sonar is not operational or the sea is too rough for the diver to dive. Sometimes the diver is used to confirm the information from handlining. The depth at which the fish are, in handlining is estimated from the amount of line that is let down. The species caught gives an indication of species composition.

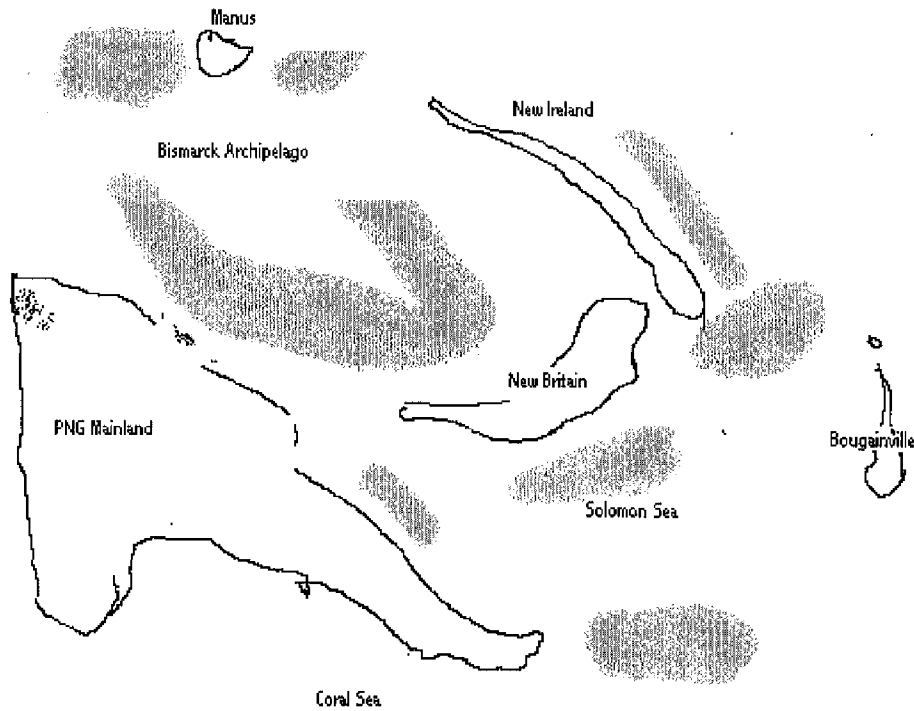
Set strategy

The actual net setting begin about 3.30 am. The preparation for the set however begins about 7-9pm initially with the light boat attaching to the Fad and setting on the lights to aggregate the fish. Sometimes especially during full moon colored lights (green and yellow) are used.

Areas of Fad deployment

Areas where Fads are deployed are as shown in Figure 1. Most of the Fads are in the Bismarck Archipelago. There are set 12 nautical miles away from any known reef or island.

Figure 1. Fad locations in PNG waters



Processing centres

Most of the catch from fads operations is taken to canneries in the Philippines. Some of it is processed locally in the PNG based cannery. Production at the PNG cannery is at present about 100 metric tonnes per day.

Domestic initiative in the tuna industry (New entrance?)

In a true sense there is no PNG owned purse-seine vessels. Vessels regarded as PNG owned or domestic purse-seiners are either Foreign locally based or foreign share holding but PNG registered companies or vessels.

There are a number of countries who are seeking access to PNG of which one is Japan. Last month exploratory talks were held between the National Fisheries Authority and the Japanese delegation but nothing was agreed upon. Further talks will be held towards the end of this year.