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**ANNUAL REPORT TO THE COMMISSION
PART 1: INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS**

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TUVALU

Annual Report to the Western and Central Pacific Tuna Commission
Part 1: Information on Fisheries, Research and Statistics
Tuvalu
2012

Summary:

Key trends of tuna fisheries in Tuvalu for 2011:

Flag state reporting

- (i) Increased number of Tuvalu flag vessels from 3 to 7; (1PS, 6 LL) under a new joint venture arrangement –
- (ii) The four (4) new LL vessels were Tuvaluan flagged towards the end of 2010 which catches were reported and attributed for Tuvalu as of last year.
- (iii) 2011 also witnessed the artisanal sector landing a record catch (of 41 tons) with yellowfin dominating the catch for the second time;

Coastal State Reporting – foreign fleet

- (iv) Fishing licenses reached record level for long line and purse sein.
- (v) Tremendous increase in LL catch (double compared to 2010)
- (vi) Purse seine catch was slightly lower compared to 2010
- (vii) Pole and line activities were lowest in 2011

Background:

There has been slight progress made in domestic operations in 2011 mainly as a result of small increase in domestic fleet and associated catches in purse seine fishing. At the same time fishing licenses issued for 2011 reached record high of over 400 licenses; more than 90% increase for purse seine licenses for the 2009 period. Despite this increase, the catches of key species show moderate increase only.

Reporting of data and compliance (by both the distant and national fleets concerning their fishing activities) remain challenging despite progress work to better coordinate data collection, management and analyses. There are also capacity difficulties within the department of fisheries with respect to close monitoring of reporting and data management.

Flag State Reporting:

Tuvalu continues to explore ways to increase the economic return derived from the tuna fishery. In 2010 Tuvalu government entered into another joint venture and has resulted in acquisition of another two fishing boats – long line. Towards the end of the same year, at October 2010, four long line vessels were Tuvaluan flagged, bringing up the number of Tuvaluan flagged fishing vessels to 7. All these 7 boats fish in the Tuvalu EEZ as well as waters of neighboring countries and Papua New Guinea.

Catch and effort data

Purse seine fleet – 2011 is the third year of fishing operation for the Tuvalu purse seine fleet. The 2011 catch was expected to be larger than the 2010 catch in terms of tonnage. Unfortunately, due to late and failure in submissions of logsheets, the catches for 2011 is only provisional.

Table 1; fishing catch (mt) by species landed by the purse seine fleet for the reporting period (2007-2011). (Source Tuvalu TUFMAN)

YEAR	SKJ	YFT	BET	TOTAL
2007				
2008				
2009	3,527	564	337	4,428
2010	8,100	2,061	393	10,554
2011	5,579	684	433	6,696

Long line fleet – With an increase in number of Tuvaluan flagged LL vessels, catches are also expected to increase. However, fishing companies were continuously urged and reminded to submit all the logsheets that are due to be submitted so as to better estimate the catches and effort.

Fishing pattern and distribution

Purse seine fleet – the lone purse seine began its fishing operation in mid 2009 and had been fishing mainly within and around Kiribati waters. In 2010 fishing effort and area coverage had expanded and also shifted westward. In 2010 the fleet (of one boat) fish largely in the waters of Papua New Guinea and Marshall Island. Fewer fishing effort had occurred in Kiribati EEZ and to a lesser extent in the Tuvalu EEZ. It is not known what caused this westward shift in fishing by the fleet in 2010.

Figure 1: Distribution of fishing effort (days) by the national PS fleet in 2009

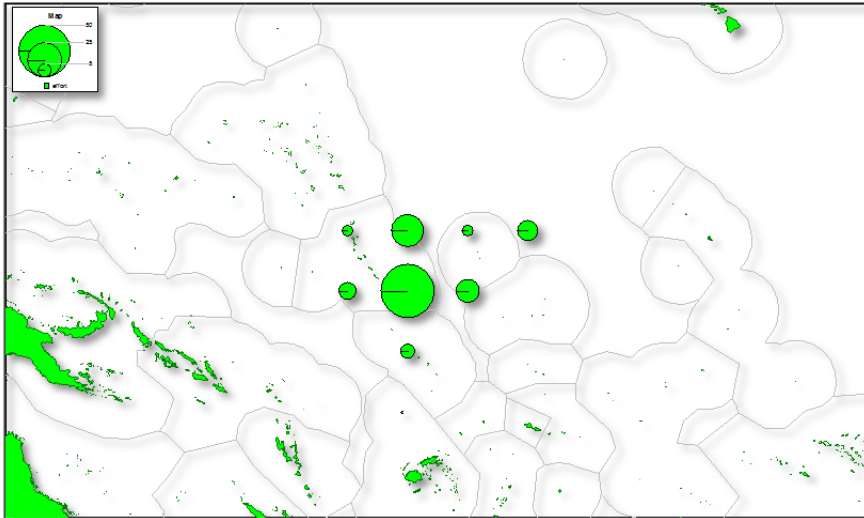
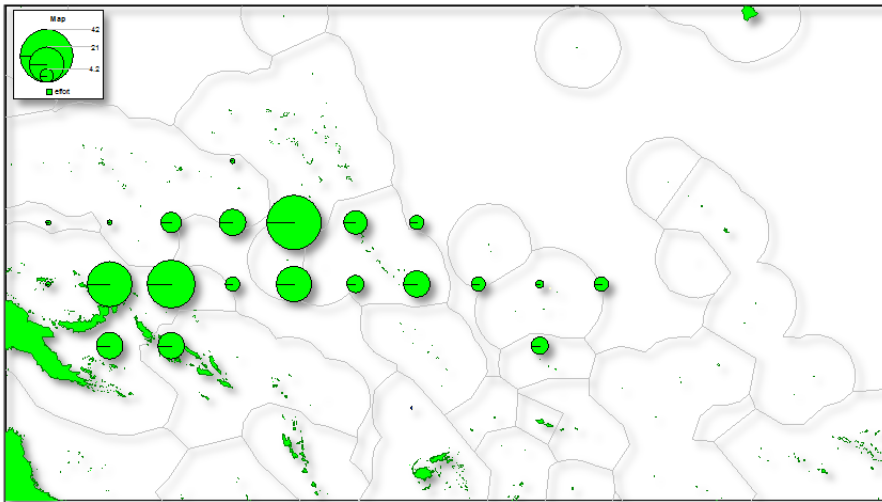


Figure 2: Effort (days) distribution by the national purse seine fleet in 2010



Artisanal fishery and annual catches:

The artisanal fishery comprises of the small scale operators who feed the local fish markets on a daily basis. These operators target a wide range of different fishes with tuna as their main target species basically by hand trolling. The skipjack tuna usually makes up the majority of the trolling catch (by weight) followed by the yellowfin tuna. However, for the second time in the past five years the combined catch of yellowfin tuna was much higher than that of the skipjack combined

catch. In fact the 2011 catch is a record for the yellowfin tuna. The improved in storage facilities available to fishermen is one of the main reasons for the increased catch observed in recent years. Because trolling concentrates only on the surface, the bigeye tuna is rarely encountered.

Table 2: Annual catches (tons) landed by artisanal fishermen for the period 2006 to 2010. These are actual catch figures obtained through record held by the various local fish markets. (Source: Fisheries Department database).

Year	YFT	SKJ	Others	Total
2007	9	17.2	3.3	29.5
2008	10.5	11.7	3.4	25.7
2009	11.6	15.6	3.8	31
2010	21.1	15.2	2.7	39
2011	20.5	17.8	3.2	41.5

The figures in the table represent only the catch that is landed to the fishing centers and do not account for fish sold outside fish markets. Also fish landed by artisanal fishers based out on Funafuti have not been added because of some concerns with the quality of the collected data.

COASTAL STATE REPORTING

Fishing licenses issued by the Tuvalu fisheries between 2007 and 2011

Tuvalu continues to provide fishing opportunities to interested foreign fleets. The number of fishing licenses show a slight increase for longline, a huge increase for purse seine, and a slight drop in pole and line. In 2011, a record total of 445 fishing licenses had been issued. The margin of increase is greatest for the purse seine fleet which rose by 73% from that in the previous year. Overall it is the purse seine fleet that has the highest number of fishing licenses with 274 (62%) followed by the long line fleet with 149 licenses (33%). The pole and line registered only 10(2%) licenses.

Table 3: Annual fishing licenses issued by the department of fisheries for the reporting period (2007-2011). Fishing licenses issued for the domestic fleet are excluded. (Source; TUFMAN Tuvalu version 6.09)

Year	Long Line	Purse Seine	Pole and Line	Carriers	Bunker	Total
2007	81	105	5	0	0	191
2008	43	130	6	2	0	181
2009	61	144	12	7	1	225
2010	135	158	17	6	4	320
2011	149	274	10	4	8	445

Purse seine – catch & effort

Similar to the past several years the purse seine fleet is dominated by the two fleets - the US and the Korean. The total catches in 2011 dropped by approximately 15% from the 2010. The skipjack accounted for 92% of the total catch in 2010 and 6% consisted of yellowfin tuna. The other 2% was bigeye tuna.

Table 4: Combined fishing effort (days) and the total annual catch (mt) made in Tuvalu EEZ by the PS fleet between 2006 and 2010. (Source TuFMAN)

Year	Days	Skipjack (mt)	Yellowfin (mt)	Bigeye (mt)	Total (mt)
2007	954	37,047	5,935	1,565	44,548
2008	1,403	31,229	5,936	1,760	38,926
2009	1,735	55,865	5,301	2,261	63,427
2010	1,800	53,665	5,066	1,887	60,618
2011	1,800	42,874	5,801	3,125	51,800

Fishing effort distribution – similar to any other year 2010 fishing effort by the foreign purse seine fleet scattered all over Tuvalu’s EEZ. However there are certain parts of the EEZ observed to be “hot spots” to the PS fleet. These hot spots change from time to time as illustrated by the maps below - most certainly due to fish movement.

Figure 3; Effort (days) distribution of the foreign PS fleet, 2011. (Source; CES)

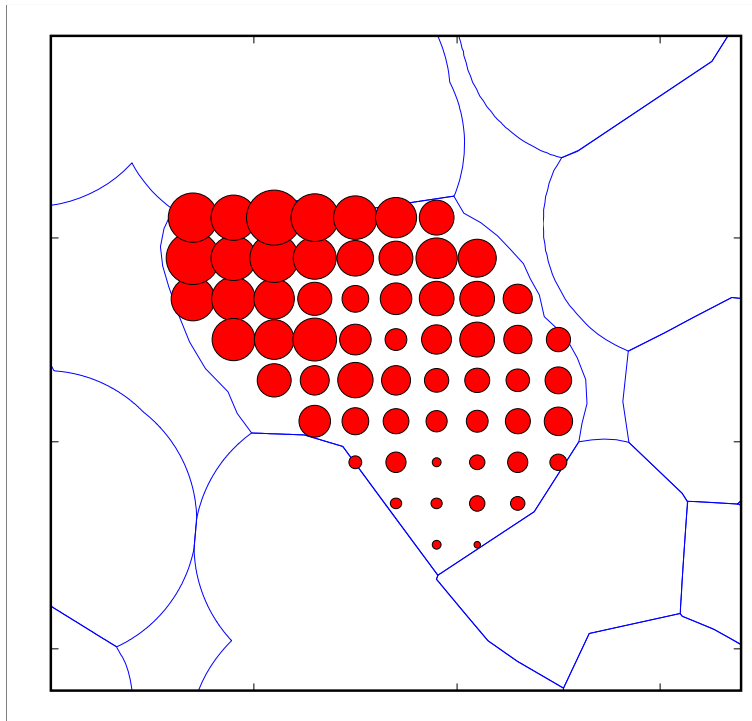


Figure 4; Effort (days) distribution of the foreign PS fleet, 2010. (Source; CES)

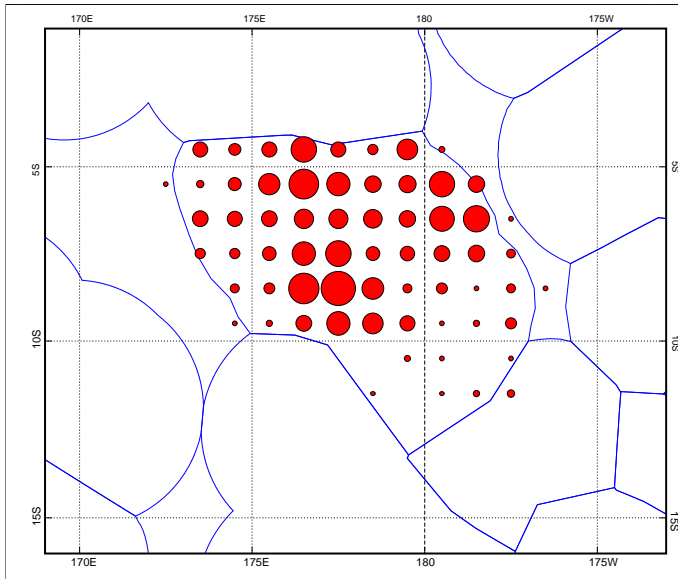
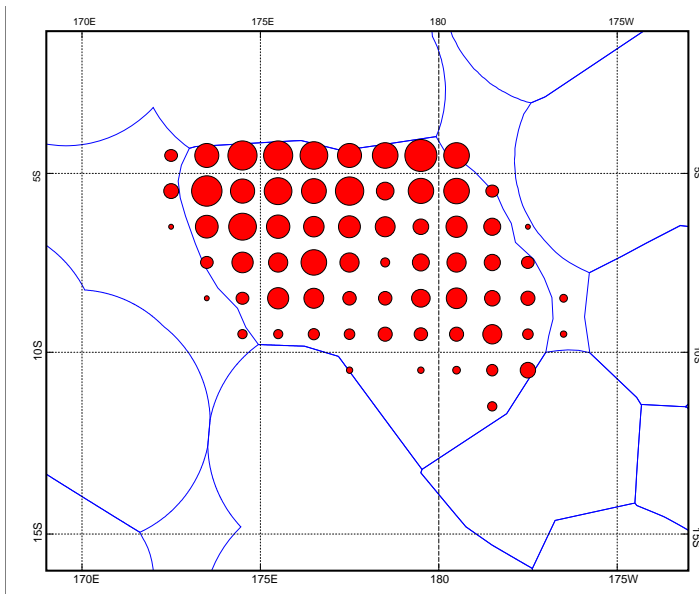


Figure 5: effort (days) distribution for foreign PS fleet, 2009



Longline Fleet annual catches – Annual catches peaked in 2007 and this is consistent with the high fishing effort reported in that year (refer to effort distribution). The 2010 combined annual catch for the long line fleet is the second lowest for the reporting period. This is strange given the fact that 2010 is a record year in terms of fishing licenses granted and issued to this fishery. Nonetheless it is important to note that total annual catch for 2010 as presented in the table below is only provisional. Catch composition also changed. Usually yellowfin comprises the majority of the catch but in 2010 yellowfin catch has dropped to the second lowest and contributed the least, accounting for 24% of the total catch.

Table 5: Combined annual catches reported by the foreign long line fleet for the reporting period.
(Source; TUFMAN Tuvalu)

Year	Albacore	Big eye	Skipjack	Yellowfin	Total
2007	318	574	3	782	1,677
2008	156	200	2	328	686
2009	247	283	1	428	959
2010	151	218	0	364	735
2011	371	300	4	659	1,333

Long line - Fishing Effort and distribution – no distribution of fishing effort by the LL fleet in 2010 was available at the time the report was written. Using data available it can be concluded that effort distribution for the LL fleet similar to PS fleet is also scattered across the entire Tuvalu’s EEZ. However effort tends to aggregate more in some areas than others. Such effort aggregation changed from one year to the next. The highest number of effort recorded in Tuvalu EEZ was reported in 2007.

Figure 6: Effort distribution by the LL fleet in 2011. (Source; regional database, CES)

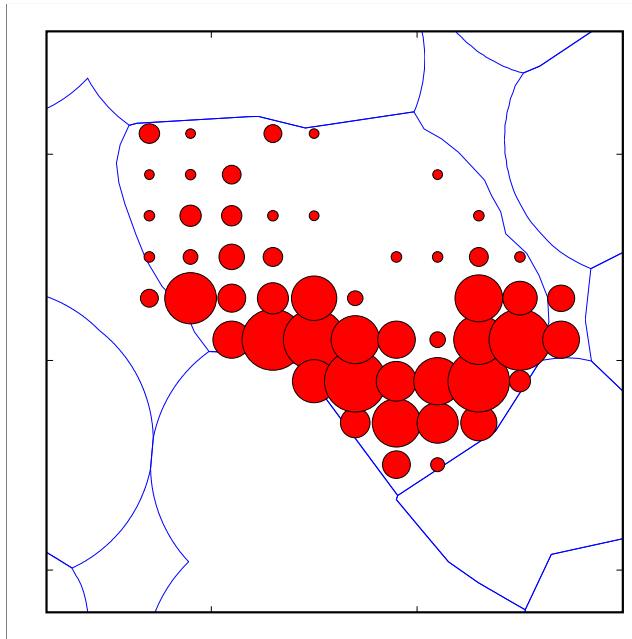


Figure 7: Effort distribution by the LL fleet in 2009. (Source; regional database, CES)

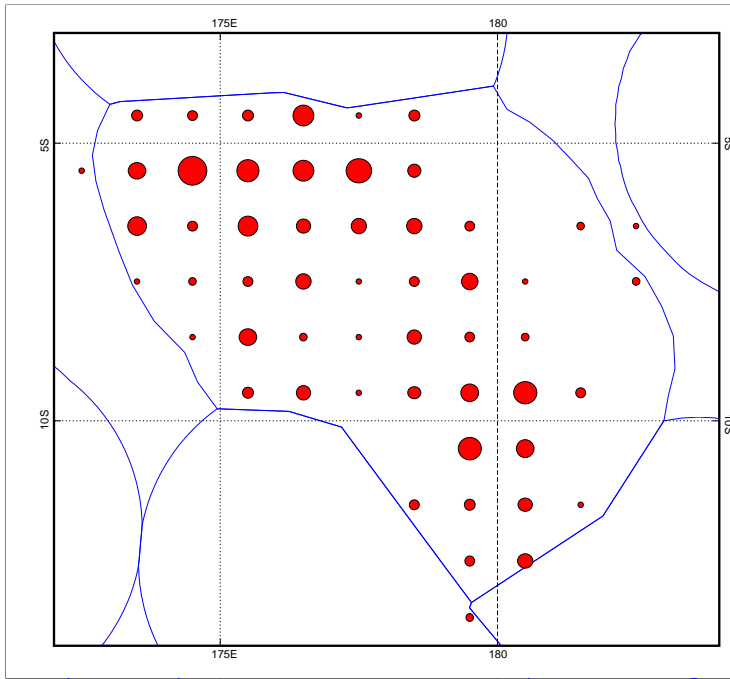


Figure 8: Effort distribution by the LL fleet in 2008. (Source; regional database, CES)

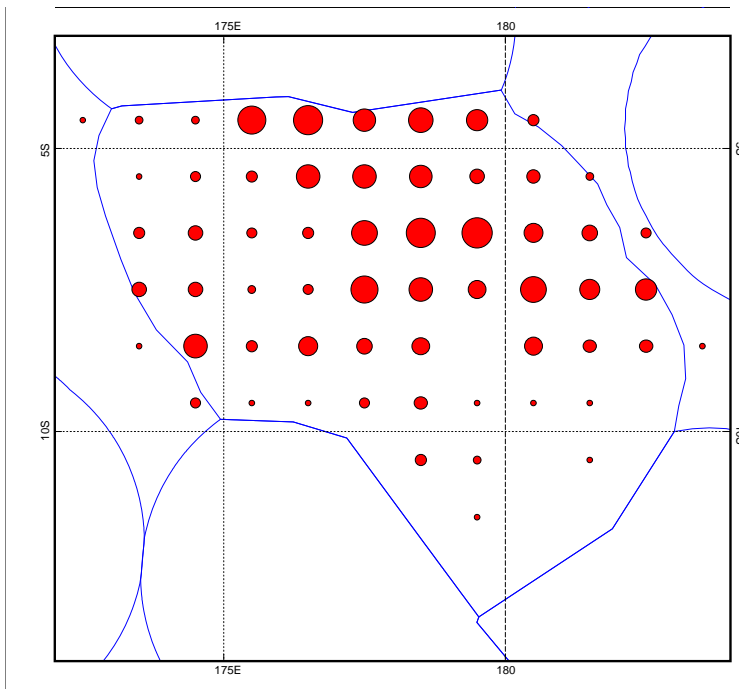
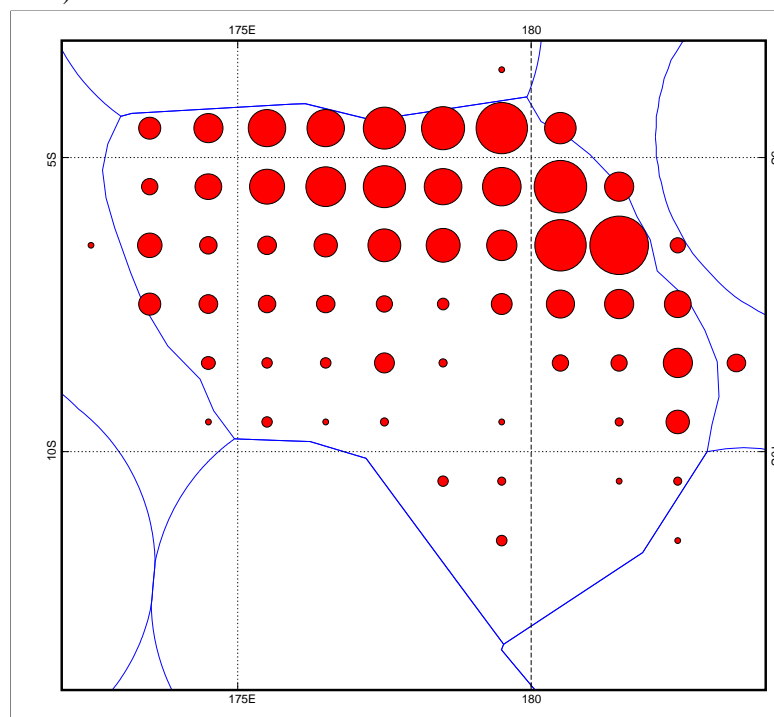


Figure 9; Combined fishing effort (days) distribution for the LL fleet in 2007. (Source; regional database, CES)



Pole and Line annual catches – Japan is the only P&L fleet operating in Tuvalu EEZ. No 2010 catches have been received or reported by the Japan pole and line fleet at the time the report was written. The annual catches have been declining after a peak of 430 tons in 2007. It is understood that many reports are yet to be received and the department is now in the process of locating and collecting all the outstanding reports not only for the Japanese pole and lines, but also for other fleets that fish and operate in Tuvalu EEZ.

Table 6: annual catches caught by the P&L fleet in Tuvalu EEZ. (Source; TUFMAN Tuvalu).

Year	Number of fishing permits	SKJ	YFT	Total
2007	5	430	0	430
2008	6	180	0	180
2009	12	1	0	1
2010	17	0	0	0
2011	10	0	0	0

Disposal of catch

Tuvalu flag vessels offload their catches at ports outside Tuvalu. There was little transshipment occurred in domestic ports in 2011 from which by-catch and discards remain a challenging issue. The foreign fishing boats continue to throw unmarketable fish (undersized and damaged fishes) overboard against domestic policies and laws.

Tuvalu is currently preparing its national plan of action (NPOA) on sharks and turtles and bycatch are essential sections in the current tuna management and development plan.

Onshore developments

No onshore physical infrastructures were constructed in the country during 2011. Despite that, the small increase in number of flag vessels to Tuvalu present an opportunity to entice onshore development as a result of investment undertakings. It is expected to happen in the future with increase in domestic fleets.

Tuvalu is currently undertaking work with assistance of FFA to establish competent authority and progressing small scale offshore development project focusing on skipjack and other species in territorial waters including seamount fisheries.

Tuvalu implemented the PNA VDS with the intention to trade its allowable fishing day efforts under the scheme and slowly phase out bilateral access arrangements.

Future prospects of the fishery

Tuvalu new management and development plan also require implementation of its hard limits with TAC for each longline, purse seine and pole and fishery and will implement rights-based management regime to control and manage its domestic fisheries.

Status of tuna fishery data collection program

Logsheets is required by law onboard every fishing boat (large commercial boats). This does not include the small scale operators or the artisanal fleet. Under our fisheries laws fishing logsheets shall be submitted or surrendered to the fisheries department no later than one month after the completion of fishing trip. There's still quite a number of vessel operators who continue to defy such reporting requirement. Some tuna data targeting artisanal sector are also collected annually by the local fisheries department under its own initiative. However due to funding and manpower shortages, coverage is very limited and only confined to the Funafuti atoll.

Observer – the national observer program kicked off in 2010 as part of Tuvalu's commitment in fulfilling its obligation as a member of the PNA group. SPC has been very helpful and active in the establishment of the program and also in the training and certification of Tuvalu observers. The program is now supported and maintained through a small levy included as part of the license fee.

Highlights of 2011

- *Tuvalu, in April was privileged to host the PNA 30th Official meeting as well as the 5th Ministerial Meeting.*
- *Tuvalu EEC was closed for Purse Seine activities on November 16th upon reaching it's PAE.*