Ministry of Fisheries & Forests

Department of Fisheries

Key Fisheries Statistics

2011

ACRONYMS:

FAO –	Food & Agriculture Organization
CITES -	Convention on International Trade in Endangered Species
IDA -	Inside Demarcated Area
ODA -	Outside Demarcated Area
L -	Launch
H/C -	Half Cabin
O/P -	Open Punt
D/C -	Double Cabin
FAO -	FAO Design
R/P -	Rowing Punt
N/B -	No Boat
MPA -	Marine Protected Areas
FLMMA -	Fiji Locally Managed Marine Areas
HACCP -	Hazard Analysis Critical Control Point
FAD -	Fish Aggregation Device
CITES -	Convention on International Trade in Endangered Species
RFSC -	Rural Fisheries Service Centre
BDM -	beche-de-mer

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GLOBAL STATUS OF THE FISHERIES SECTOR

World capture Fisheries has been relatively stable over the past 5 years. It is set to be overtaken by Aquaculture as aquaculture continues to be the fastest growing animal food production sector. It has maintained a slow but steady upward trend as depicted in Table 1 and Figure 1. The global total has experienced a slight upward trend due to the input of aquaculture.

Table 1: Total World Fish Production

World fisheries and aquaculture production and utilization

	2004	2005	2006	2007	2008	2009
	(Million tonnes)					
PRODUCTION						
INLAND						
Capture	8.6	9.4	9.8	10.0	10.2	10.1
Aquaculture	25.2	26.8	28.7	30.7	32.9	35.0
Total inland	**33.8**	**36.2**	**38.5**	**40.6**	**43.1**	**45.1**
MARINE						
Capture	83.8	82.7	80.0	79.9	79.5	79.9
Aquaculture	16.7	17.5	18.6	19.2	19.7	20.1
Total marine	**100.5**	**100.1**	**98.6**	**99.2**	**99.2**	**100.0**
TOTAL CAPTURE	**92.4**	**92.1**	**89.7**	**89.9**	**89.7**	**90.0**
TOTAL AQUACULTURE	**41.9**	**44.3**	**47.4**	**49.9**	**52.5**	**55.1**
TOTAL WORLD FISHERIES	**134.3**	**136.4**	**137.1**	**139.8**	**142.3**	**145.1**
UTILIZATION						
Human consumption	104.4	107.3	110.7	112.7	115.1	117.8
Non-food uses	29.8	29.1	26.3	27.1	27.2	27.3
Population (*billions*)	6.4	6.5	6.6	6.7	6.8	6.8
Per capita food fish supply (*kg*)	16.2	16.5	16.8	16.9	17.1	17.2

Note: Excluding aquatic plants. Data for 2009 are provisional estimates.

Source: FAO

Human consumption has also been increasing mainly due to the continuous increase in world population as demand for animal protein increases (figure 2). Per capita supply of fish remained steady with an average of about 16.5kg.

Almost two thirds of the total world fisheries production comes from capture fisheries with the remaining one third coming from aquaculture. However, trends show that while capture fisheries has maintained a steady trend, aquaculture has been showing an increasing trend (figure 1) due to the fact that more emphasis is placed on aquaculture as the long term solution for world fish production. Most of the fish production is utilized for human consumption which shows an increase from previous years (figure 2).

Figure 1: Trends in World Fisheries Production

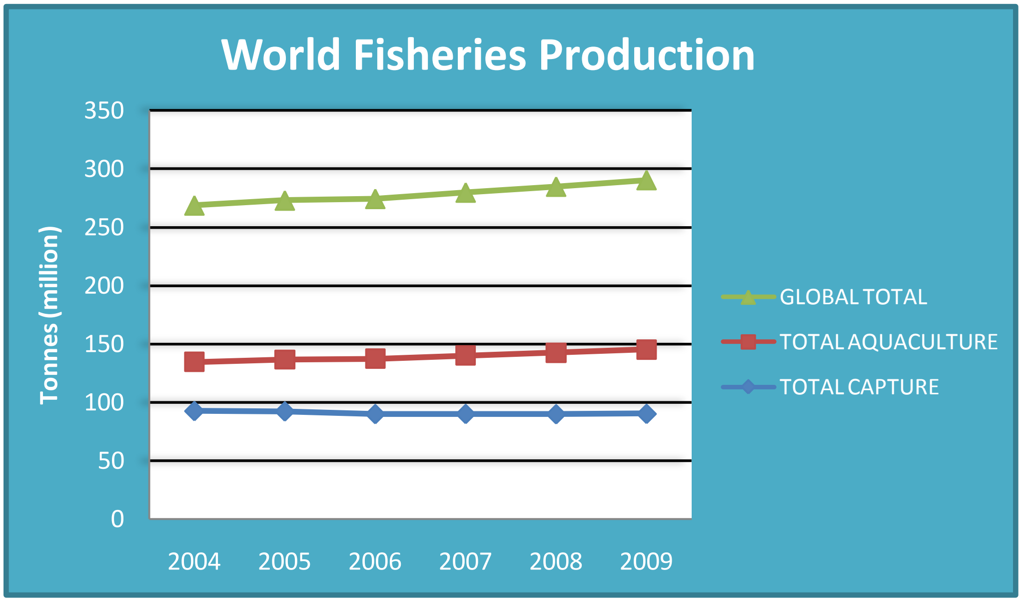
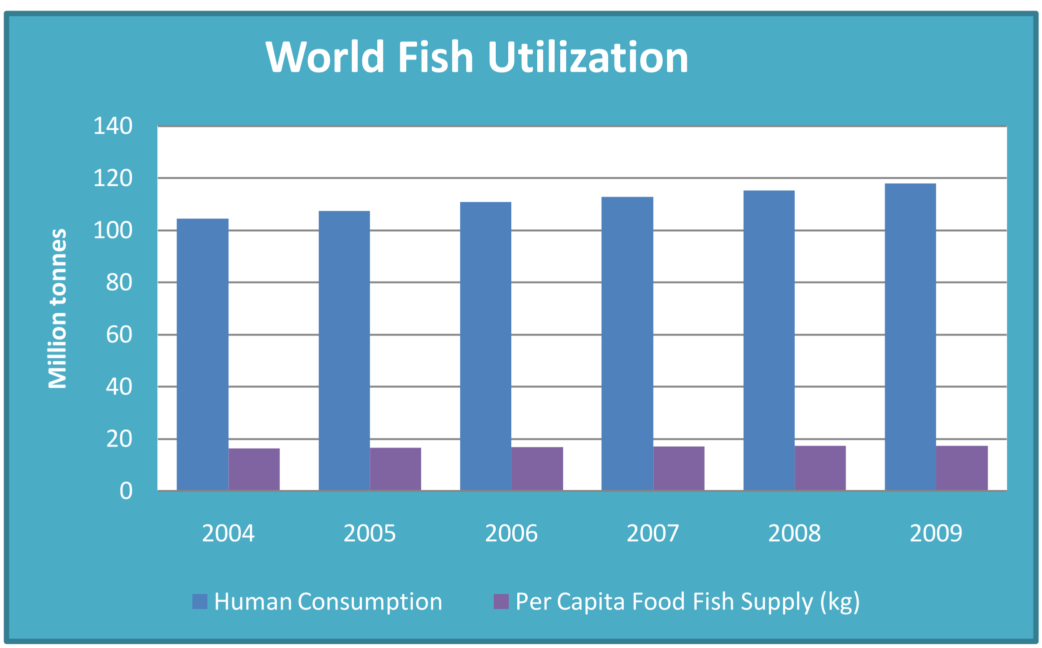


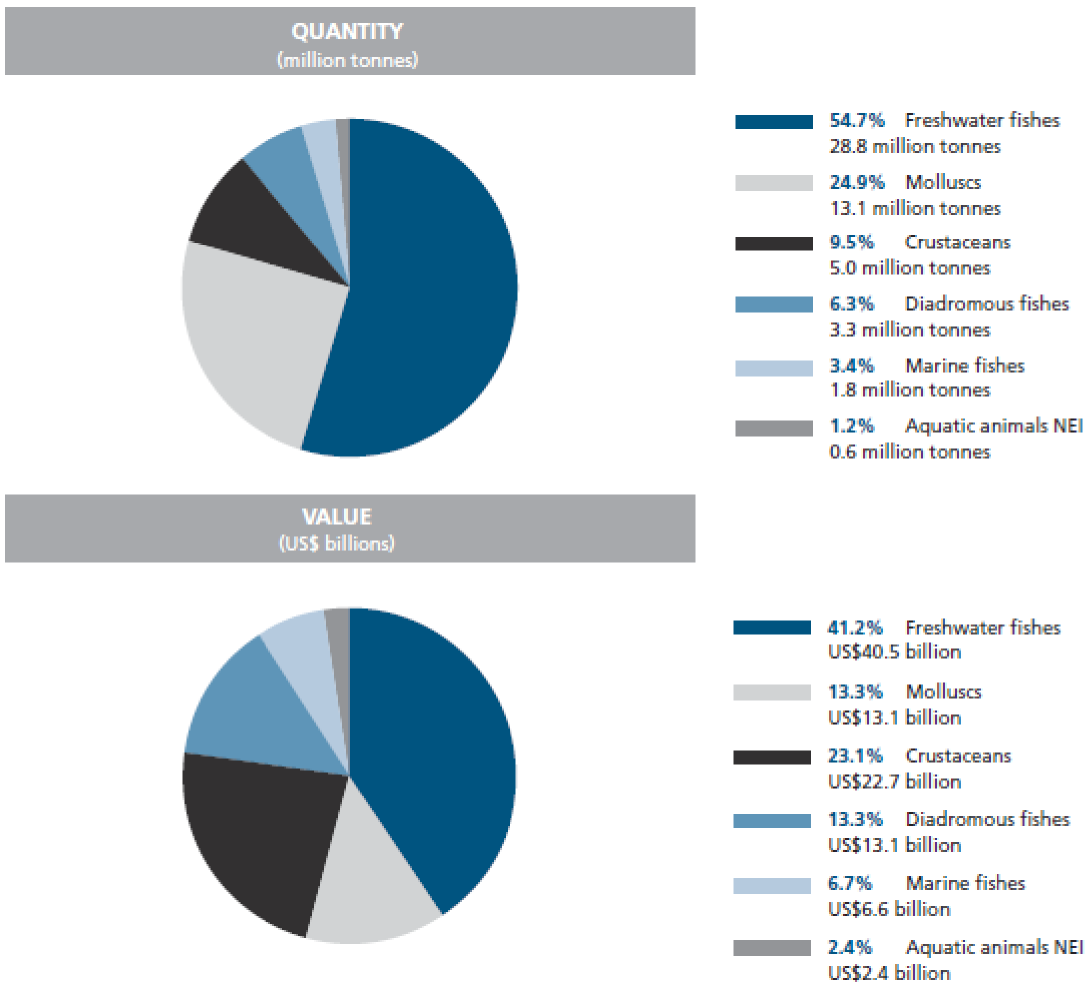
Figure 2: Utilization of the World's Fish Resources



World Aquaculture Fisheries

Aquaculture has been steadily gaining on capture fisheries and in the not to distant future, is set to overtake it as the main means of Fish production. Hence, its influence on world fisheries cannot be ignored. In 2008 alone its worth was US$98.4 billion dollars with a production volume of 52.5 million tonnes (figure 3)

Figure 3: World Aquaculture production as of 2008

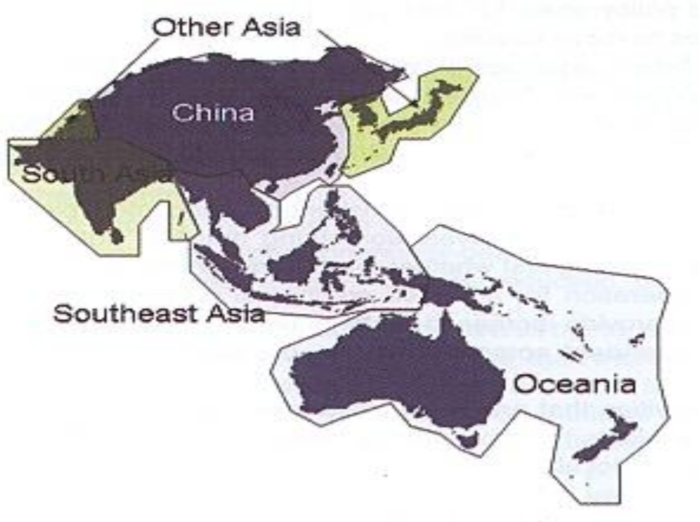


Note: NEI = not elsewhere included.

Source: FAO

REGIONAL STATUS OF THE FISHERIES SECTOR

Oceania



Source: FAO

The Oceania region's capture production consists mainly of fish taken from marine waters (figure 4). The largest and most valuable tonnage part of the marine pelagic catch is the catch of tuna species (figure 5). Overall trends in production are basically determined by a few larger states such as Australia and New Zealand with well established commercial fisheries sectors, with the exception of offshore pelagic fisheries. Rapid growth of pelagic marine fish production from the late 1990s has mainly come from skipjack tuna in Papua New Guinea and to some extent, Fiji. Commercial offshore production has also increased in many small island states and contributed to the increase in total production.

Figure 4: Trends in capture production of Oceania by environment (Marine/Inland)

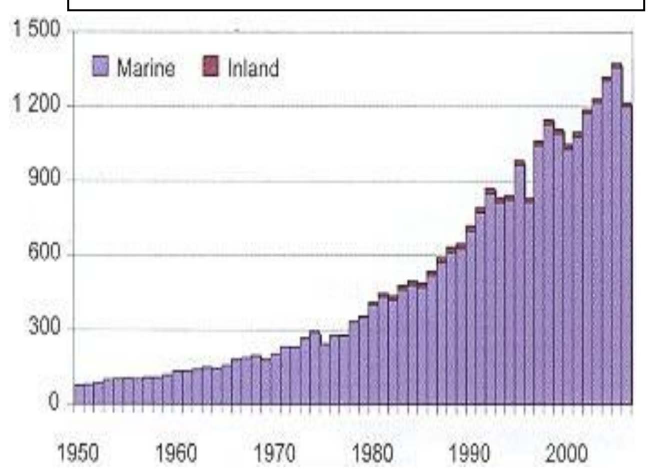
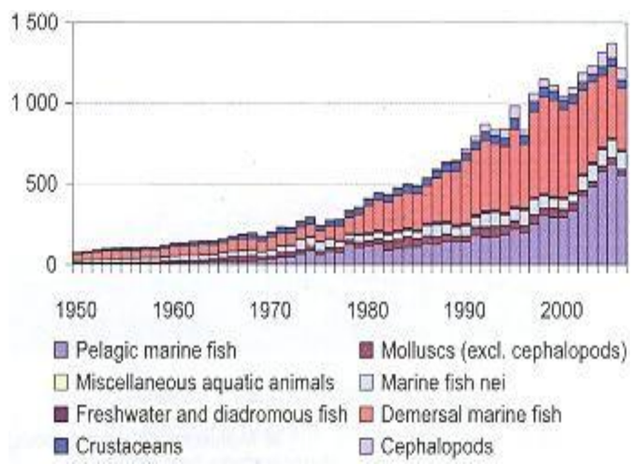
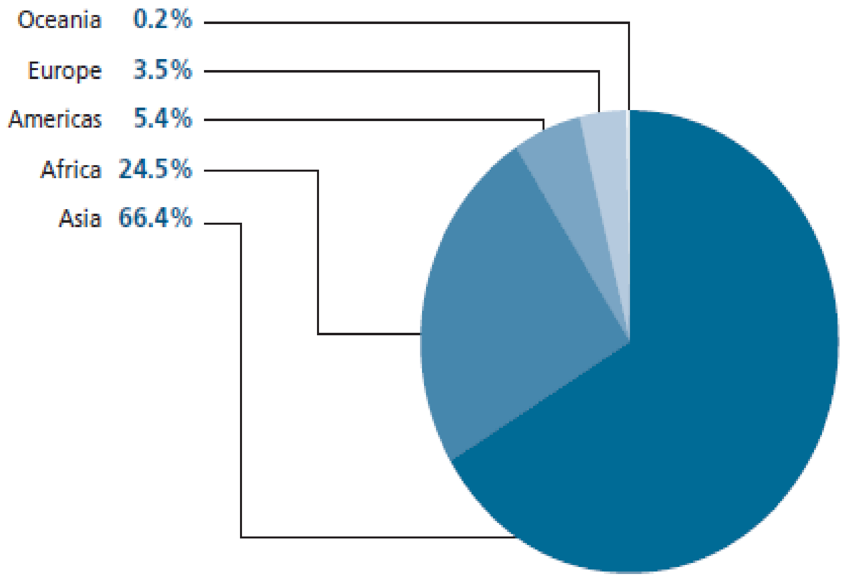


Figure 5: Capture production in Oceania by major species group



(Source: FAO)

Figure 6: Inland capture fisheries by continent in 2008 (Source: FAO)



Inland capture Fisheries mainly consists of freshwater rivers, lakes, streams and waterways. Inland fishery mainly consists of species such as carps, catfish, tilapia and eels as the main ones together with invertebrates such as shellfish (freshwater bivalves) and prawns. Oceania has a very small contribution to world inland fishery as they are heavily dependent on the sea for fish because they are basically surrounded by sea and have vast marine resources (figure 6) their land area is very small compared to their respective sea areas (EEZ). Fiji and other Pacific Island countries that fall within the Oceania region have vast areas of sea that they use for capture fishing. Inland capture fishery is relatively small when compared to marine fishery. In Fiji, the main inland capture fishery consists of freshwater bivalve species and wild prawns.

Table 2: World regional aquaculture production (Source: FAO)

Aquaculture production by region: quantity and percentage of world production

Selected groups and countries		1970	1980	1990	2000	2006	2008
Africa	**(tonnes)**	**10 271**	**26 202**	**81 015**	**399 788**	**754 406**	**940 440**
	(percentage)	***0.40***	***0.60***	***0.60***	***1.20***	***1.60***	***1.80***
Sub-Saharan Africa	(tonnes)	4 243	7 048	17 184	55 802	154 905	238 877
	(percentage)	*0.20*	*0.10*	*0.10*	*0.20*	*0.30*	*0.50*
North Africa	(tonnes)	6 028	19 154	63 831	343 986	599 501	701 563
	(percentage)	*0.20*	*0.40*	*0.50*	*1.10*	*1.30*	*1.30*
America	**(tonnes)**	**173 491**	**198 850**	**548 200**	**1 422 637**	**2 367 320**	**2 405 166**
	(percentage)	***6.80***	***4.20***	***4.20***	***4.40***	***5.00***	***4.60***
Caribbean	(tonnes)	350	2 329	12 169	39 692	36 610	40 054
	(percentage)	*0.00*	*0.00*	*0.10*	*0.10*	*0.10*	*0.10*
Latin America	(tonnes)	869	24 590	179 367	799 235	1 640 001	1 720 899
	(percentage)	*0.00*	*0.50*	*1.40*	*2.50*	*3.50*	*3.30*
North America	(tonnes)	172 272	171 931	356 664	583 710	690 709	644 213
	(percentage)	*6.70*	*3.70*	*2.70*	*1.80*	*1.50*	*1.20*
Asia	**(tonnes)**	**1 786 286**	**3 540 960**	**10 786 593**	**28 400 213**	**41 860 117**	**46 662 031**
	(percentage)	***69.60***	***75.20***	***82.50***	***87.60***	***88.40***	***88.80***
Asia excluding China	(tonnes)	1 021 888	2 211 248	4 270 587	6 821 665	11 831 528	13 717 947
	(percentage)	*39.80*	*47.00*	*32.70*	*21.00*	*25.00*	*26.10*
China	(tonnes)	764 380	1 316 278	6 482 402	21 522 095	29 856 841	32 735 944
	(percentage)	*29.80*	*28.00*	*49.60*	*66.40*	*63.10*	*62.30*
Near East	(tonnes)	18	13 434	33 604	56 453	171 748	208 140
	(percentage)	*0.00*	*0.30*	*0.30*	*0.20*	*0.40*	*0.40*
Europe	**(tonnes)**	**510 713**	**770 200**	**1 616 287**	**2 072 160**	**2 209 097**	**2 366 354**
	(percentage)	***19.90***	***16.40***	***12.40***	***6.40***	***4.70***	***4.50***
Non-EU countries (+ Cyprus and Israel)	(tonnes)	39 431	49 985	582 305	676 685	925 664	1 088 594
	(percentage)	*1.50*	*1.10*	*4.50*	*2.10*	*2.00*	*2.10*
EU countries (27)	(tonnes)	471 282	720 215	1 033 982	1 395 475	1 283 433	1 277 760
	(percentage)	*18.40*	*15.30*	*7.90*	*4.30*	*2.70*	*2.40*
Oceania	**(tonnes)**	**8 421**	**12 224**	**42 005**	**121 312**	**160 126**	**172 214**
	(percentage)	***0.30***	***0.30***	***0.30***	***0.40***	***0.30***	***0.30***
World	**(tonnes)**	**2 566 882**	**4 705 841**	**13 074 100**	**32 416 110**	**47 351 066**	**52 546 205**

Notes: Data exclude aquatic plants. Data for 2008 contain provisional data of some countries.

Oceania's Inland and Aquaculture production is minor compared with the other sub-regions (table 2). Many of the fisheries in the Pacific small island developing states, which operate at subsistence level, are not recorded.

Asia dominates the world Fisheries in terms of Inland capture and aquaculture, with China the leading country in terms of production.

Aquaculture production from Oceania is relatively limited. Freshwater fish dominate aquaculture production. *Eucheuma cottonii* seaweed (Zanzibar weed) culture is well established in the Kiribati atolls and is being rejuvenated in the Solomon Islands and Fiji.

Interest in inland freshwater aquaculture is growing, particularly among the larger Melanesian states such as Fiji and Papua New Guinea. At present the most commonly farmed species is tilapia with about 400 tonnes produced in 2006.

Molluscs and diadromous fish are the main cultured groups. The main cultured species are New Zealand mussels and different salmon species, and this also makes up the bulk of the production (Figure 8). However, live reef fish, aquarium fish and pearls, bring significant income to some Pacific Islands, although relatively low in quantity. Although the target species are mostly caught from the wild, there is an increasing desire for culture-based sources. Giant clam culture for the ornamental trade is widespread throughout the region and the total export is probably in the range of 30 000 to 50 000 pieces/annum. The Pacific is also a major supplier of "live rock" (rock encrusted with coralline algae) with approximately 50 000 pieces of live rock currently being cultured in the Fiji Islands.

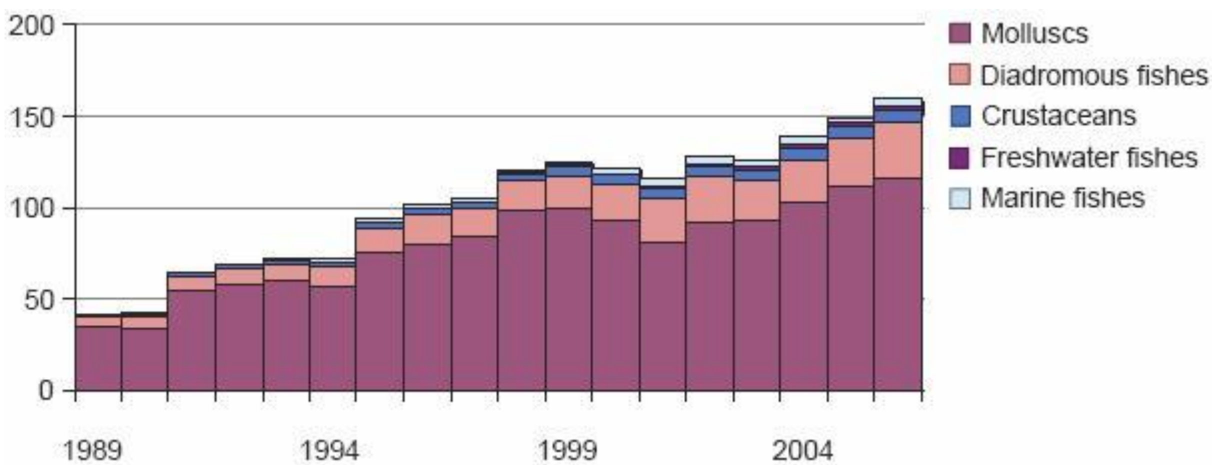


Figure 7: Aquaculture production in Oceania by major species group (Source: FAO)

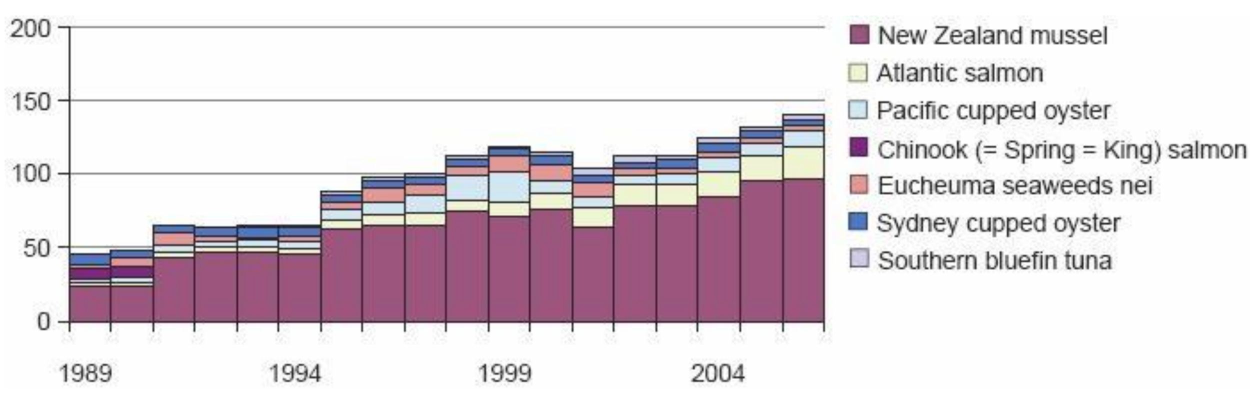
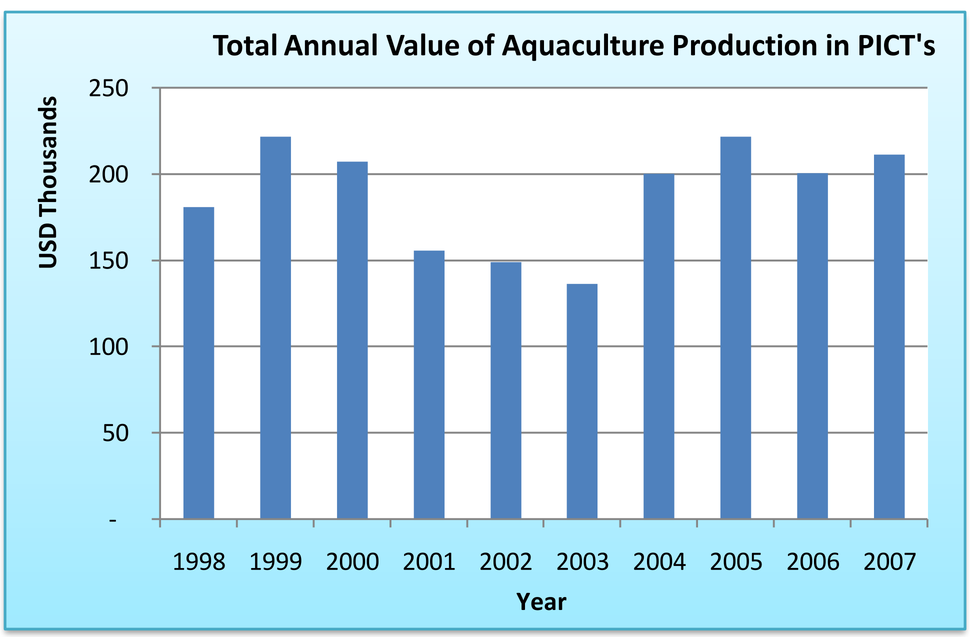


Figure 8: Top seven species aquaculture production in Oceania (Source: FAO)

Table 3: Aquaculture Production value per Country in the PICT's (USD thousands).

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
American Samoa										10
Cook Islands	6,315	6,898	8,641	6,337	3,246	1,836	2,419	1,700	1,917	2,473
FSM							49	205	200	
Fiji Islands	217	610	473	232	44	11	615	1,459	1,010	2,244
French Polynesia	155,290	189,597	175,695	125,565	123,550	110,197	160,540	179,571	162,885	173,598
Guam	757	798	819	819	874				1,231	1,391
Kiribati	421	681	876	896	969	593	762	792	317	17
Marshall Islands	4	16	77	85	71	96	90	78	103	128
Nauru									30	15
New Caledonia	16,230	21,833	19,250	20,075	19,176	22,725	34,130	36,647	31,048	28,835
Northern Mariana Islands									228	205
Palau						6	24	31	14	24
PNG	1,477	1,193	944	1,191	803	852	1,366	1,070	1,182	1,725
Samoa										33
Solomon Islands	214	211	306	237	1	11	59	90	42	74
Tonga	141	105	170	134	190	101	177	174	128	180
Vanuatu						5		3	426	495
TOTAL	**181,066**	**221,942**	**207,251**	**155,571**	**148,924**	**136,433**	**200,231**	**221,820**	**200,761**	**211,447**

(Source: A Review of Aquaculture in PICT's from 1998 to 2007, SPC)



Aquaculture in Pacific Islands is dominated by the French territories of French Polynesia and New Caledonia (Table 3). Main products are the high value black pearls and shrimp. These are followed by the Cook Islands, PNG and Fiji in terms of value. Species farmed in these countries are mainly black pearls and shrimps/prawns. The values peaked in 1999 and 2005 at over 200 million dollars (figure 9)

Figure 9: Annual value of production in PICT's from 1998 to 2007

NATIONAL STATUS OF THE FISHERIES SECTOR

MACRO LEVEL INDICATORS OF THE SECTOR

National Outlook

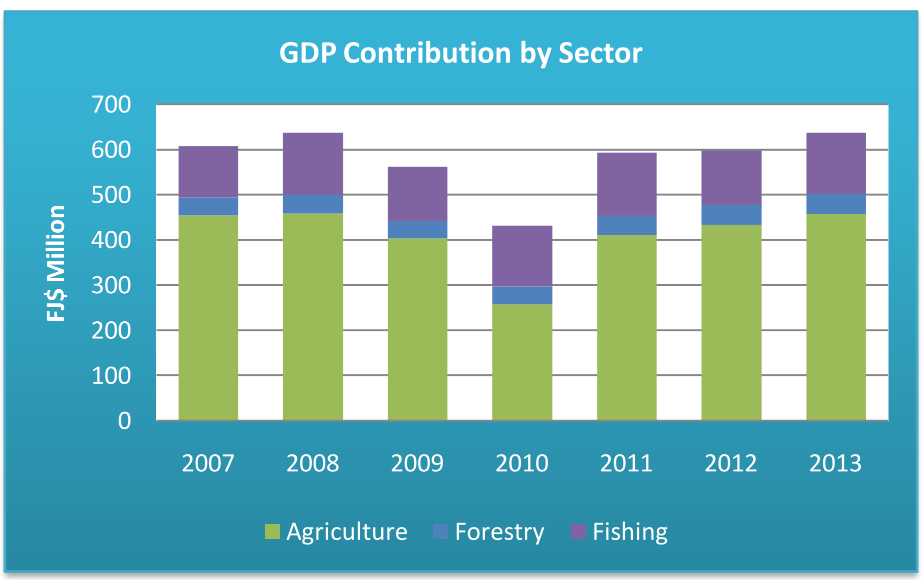
Based on the provisional GDP figures provided by Fiji Islands Bureau of Statistics, the economy is estimated to have contracted by 0.2% in 2010, following a 1.3% contraction in 2009 and a 1% growth in 2008. For 2012, domestic economic growth is projected at 2.3% while for 2013 and 2014, it is expected to grow at an average of about 2%.

This chapter summarizes the Fisheries sector status. One of the major economic indicators of any sector is its contribution to the national GDP. This sector experienced a general growth between 2007 and 2011, with a dip forecasted for 2012 and 2013.

Table 4: Gross Domestic Product (GDP) Contribution

GDP by Sector ($million)							
Activity	**2007**	**2008**	**2009**	**2010**	**2011(f)**	**2012(f)**	**2013 (f)**
Agriculture	454.9	458.8	397.1	358.0	402.5	427.9	455.2
Forestry	39.1	41.1	37.6	49.5	51.6	59.7	63.0
Fishing	118.6	150.5	132.8	137..5	154.5	125.1	132.0
Total RGDP	**4370**	**4379.2**	**4248.8**	**4252.5**	**4309.4**	**4344.4**	**4395.8**
Total NGDP	**5483.2**	**5682.9**	**5531.3**	**5861.9**	**6177.3**	**6418.9**	**6683.5**

(Source: Ministry of Finance: Economic & Fiscal Update 2011 & FIBOS)



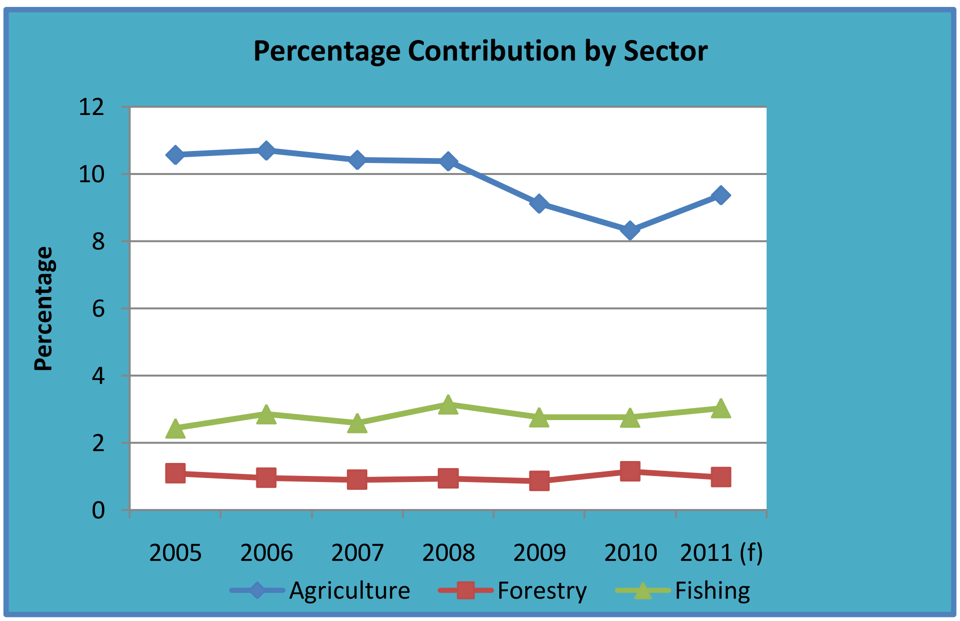
Agriculture has the highest contribution towards GDP in the resource based economy, followed by Fishing and Forestry.

Figure 10: Gross Domestic Product (GDP) Contribution by Sector

Table 5: Percentage GDP contribution by Sector

Activity	2005	2006	2007	2008	2009	2010	2011 (f)
Agriculture	10.56	10.69	10.41	10.37	9.11	8.31	9.36
Forestry	1.08	0.95	0.89	0.93	0.86	1.14	0.97
Fishing	2.43	2.85	2.59	3.14	2.76	2.75	3.03

Figure 11: GDP Growth by Sector



Fishing and Forestry sectors percentage contribution remains steady and experienced slight growth whereby the dip in Agriculture has been attributed to a fall in the sugar industry.

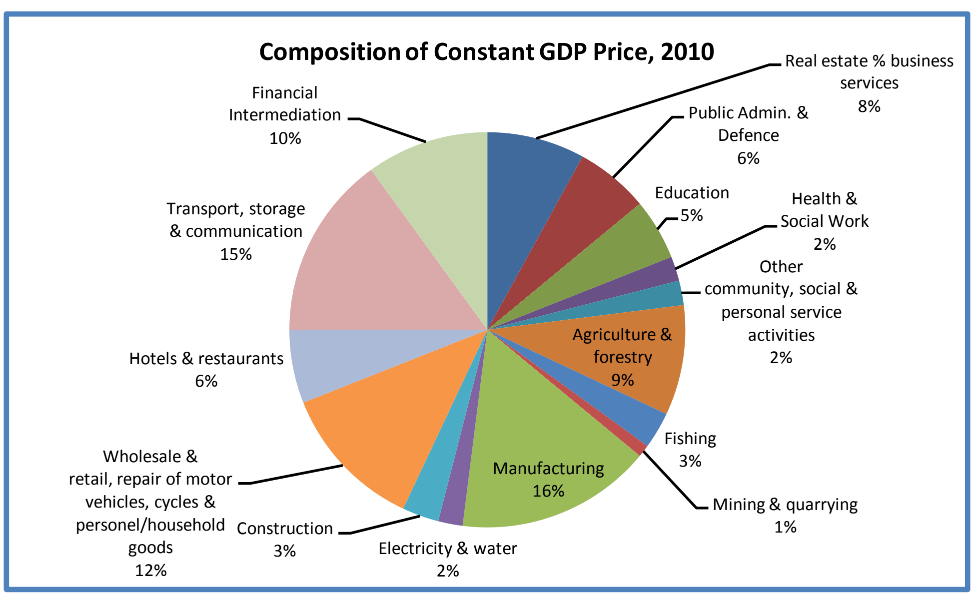


Figure 12: Percentage distribution of GDP contribution by sector.

FISHERIES PRODUCTION

Table 6: Comparative Analysis of Primary Produce by quarters

YEAR	QUARTERS	PRODUCTION VOLUME		
		SUGAR (000 tonnes)	**FISH (tones)**	**COPRA (tones)**
2005	**MAR**	38	5,046	1,986
	JUNE	321	10,348	3,567
	SEPT	1,665	6,693	3,432
	DEC	802	7,522	2,306
		2826	**29,609**	**11,291**
2006	**MAR**	0	5,579	1,900
	JUNE	401	5,878	3,301
	SEPT	1,575	6,949	3,304
	DEC	1,216	6,255	2,634
		3192	**24,661**	**11,139**
2007	**MAR**	33	2,757	2,143
	JUNE	373	2,474	2,497
	SEPT	1,432	2,067	3,182
	DEC	675	2,543	2,257
		2513	**9,841**	**10,079**
2008	**MAR**	0	2,388	2,331
	JUNE	124	3,160	3,793
	SEPT	1,413	4,256	3,796
	DEC	785	3,652	2,663
		2322	**13,456**	**12,583**
2009	**MAR**	0	2,034	2,295
	JUNE	145	3,456	2,905
	SEPT	1,055	4,236	2,257
	DEC	889	3,526	2,639
		2089	**13252**	**10096**
2010	**MAR**	0	2256	1858
	JUNE	55	3350	1950
	SEPT	991	4326	1533
	DEC	705	3150	1155
		1751	**13082**	**6496**
2011	**MAR**	0	2250	1953
	JUNE	69	3400	1642
		69	**5650**	**3595**

While copra and sugar production has fallen from 2007 to 2010, fish production has increased between the same period. Please note that the production figures for fisheries from 2007 do not include Tuna.

NATIONAL EXPORT OUTLOOK

In 2010, exports grew by 25.8 %. The expansion was due to higher receipts from gold, fish, timber, mineral water and other domestic exports, which more-than-offset the decline in sugar and coconut oil. For 2011, exports are expected to grow by 17.2 %, based on anticipated higher earnings from re-exports, sugar, gold, molasses and timber. Exports in 2012 are projected to grow by 3.1 %. This is driven by higher earnings from re-exports, gold, timber, fish and other domestic exports. For 2013 and 2014, exports are forecasted to grow by 8.9 % and 3.6 %, respectively. The strong performance in 2013 is expected to be broad based with increased earnings from all major exports categories. In 2014, increased export earning from gold, timber, fruit & vegetables, mineral water, fish and other domestic exports is anticipated.

FISHERIES SECTOR - EXPORT STATUS

Fisheries is the second largest export commodity for Fiji. Historical Trends in the export of fishery products/commodity have indicated continuous increase from 2003 to 2009. Forecasts for the sector looks promising with a total exports forecast for $200m in 2013. According to Reserve Banks Economic Review Report, the Fisheries sector was the only sector that showed increasing trends during the Global financial crisis. Fisheries make up 13% of Fiji's total export earnings.

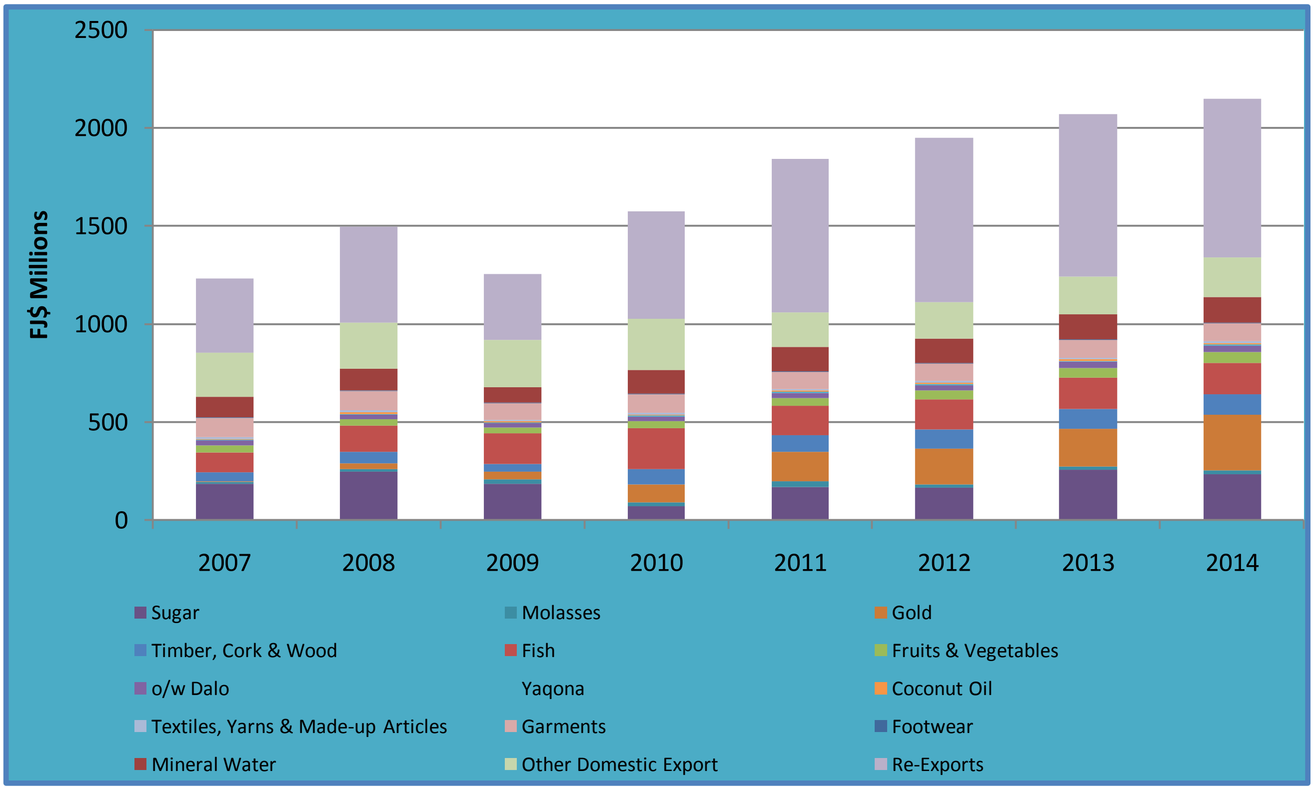
Table 7: Major Commodity Exports

Exports by Major Commodities ($millions)	2007	2008	2009	2010	2011	2012	2013	2014
Sugar	185	248.2	187.1	70.1	168.3	166.4	256.4	235
Molasses	10.4	13.6	20.8	22.6	31.7	16.4	16.5	19.3
Gold	2.6	26.7	41	89.9	147.2	181	192.7	285.1
Timber, Cork & Wood	47.7	59.3	36.7	79.6	86.2	99.7	101.2	103.9
Fish	101.3	134.2	156.7	206	149.8	152.3	159.9	158.3
Fruits & Vegetables	35.5	33.2	31.8	37.6	40.6	44.7	49.2	54.1
o/w Dalo	23.6	22.2	20.1	23.8	26.2	28.8	31.7	34.8
Yaqona	4.2	4.8	3.9	3.9	4.7	4.7	5.2	5.7
Coconut Oil	4.4	9.3	7.4	5.5	6.1	6.7	7.3	8.1
Textiles, Yarns & Made-up Articles	9.6	7.8	7.7	8.8	8.4	8.7	8.8	8.9
Garments	97.1	100.1	83.9	95.8	89.3	91.9	92.8	93.8
Footwear	2.9	2.1	1.7	1.9	1.6	1.6	1.7	1.7
Mineral Water	105.4	109.9	80.2	119.2	122.2	124.4	126.6	128.9
Other Domestic Export	222.7	234.9	239	263.3	176.7	184.8	193.1	201.9
Re-Exports	381	488.2	335.5	545.4	782.2	836	826.9	807.9
Total	**1209.8**	**1471**	**1230.3**	**1549.5**	**1815**	**1919.3**	**2038.4**	**2112.6**

(Source: Ministry of Finance Economic & Fiscal Update 2011)

Fish is surpassed only by Sugar and mineral water in terms of the main resource based exports (excluding domestic exports & re-exports). Since 2008, sugar exports have been steadily declining; however it still surpasses all other resource based exports till 2009 but is forecasted to drop behind fish and mineral water, with mineral water set to be the leading export commodity, if the current trend holds. (Refer to Figure 11 & 12).

Figure 13: Export of Major Commodities



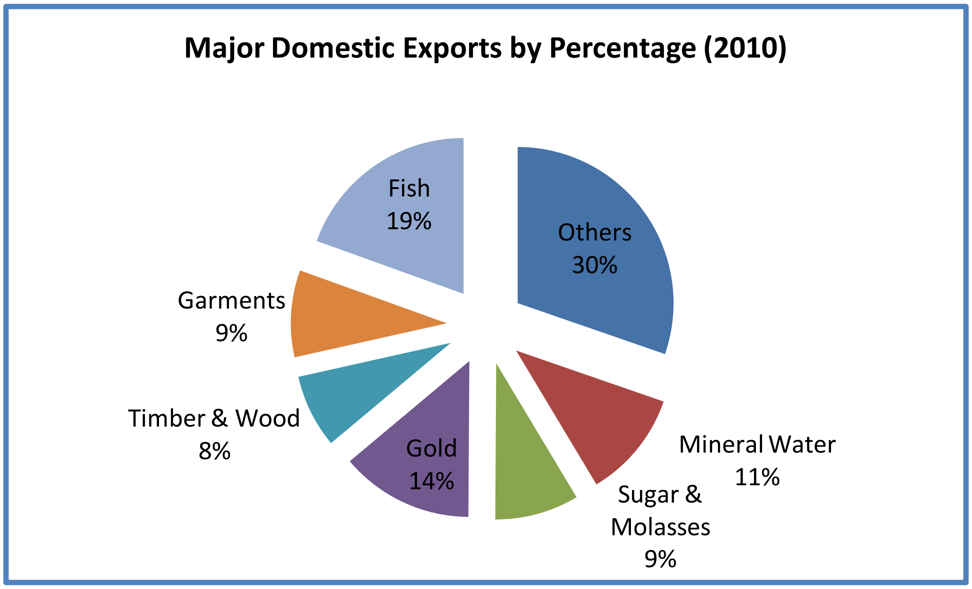
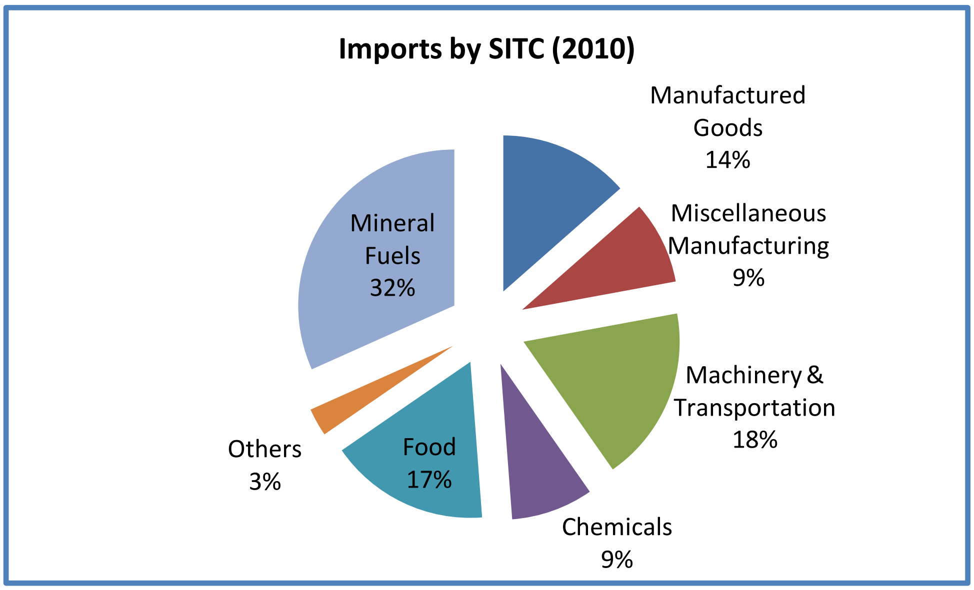


Figure 14: Commodity exports by percentage of exports

Fish was the second highest exports by percentage after "others" in 2010.

NATIONAL IMPORT OUTLOOK

Imports grew by 22.9% in 2010. The growth was broad based and led mainly by higher payments for mineral fuel, chemicals, food & beverages, and manufactured goods. In 2011, imports were expected to grow by 4.5%, largely underpinned by higher imports of machinery & transport equipment, food, mineral fuels, oils & fats, beverages and tobacco. Imports are expected to rise by 3% in 2012. This is underpinned by higher imports of mineral fuels, food, chemicals and manufactred goods, which is expected to offset the decline in imports of machinery and transport equipment. Furthermore, imports are expected to grow by 4.6% and 1.8% in 2013 and 2014, respectively. Higher imports of food, mineral fuels and machinery & transport equipment are expected in 2013. The higher payment for food is attributed to the expexted growth in tourism arrivals as well as higher inflation in our trading partners. In 2014, higher imports 0f mineral fuel, manufactured goods, chemicals, machinery & transport equipment are projected.



Mineral fuels made up the bulk of the imports, follwed by machinery and transportation and food (including Fish)

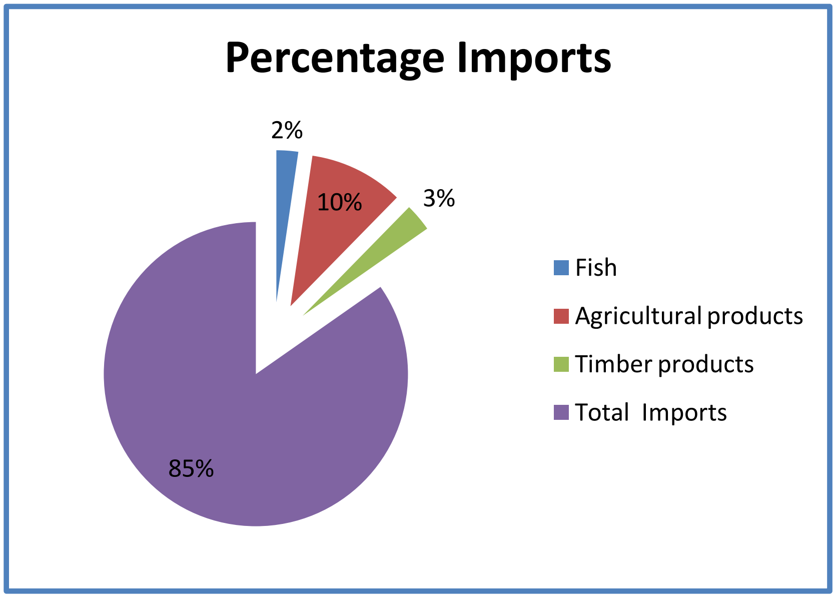
Figure 15: Percentage imports of primary produce against total imports

FISH IMPORTS

Statistical data shows that Fishery imports did not show any drastic changes over the years. Fish is mainly imported for canning purposes and as processed food (canned).

Table 8: Imports of Primary Products (Source: FIBOS)

$FJDm	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011(f)**	**2012(f)**	**2013(f)**
Fish	68.3	62.7	60.3	54.8	64	75	63	66	68	71
Agri. Products	296	296	314	328	415	366	330	338	353	363
Timber Products	87	97	104	109	114	96	98	101	104	105
Total imports	**2501.6**	**2722.8**	**3096.1**	**2874.5**	**3535.4**	**2807.8**	**2829**	**2921**	**3009**	**3048**



Collectively, the three commodities of Fish, Agriculture and timber, make up 15% of the total national imports, highest being agriculture followed by timber and fish. Agriculture exports are mainly farming chemicals and farm machinery. Bulk of the total exports is mineral fuel and machinery & equipments. Fish is imported to cater for canning purposes and also as canned products from overseas.

Figure 16: Percentage imports of primary produce against total imports

FOREIGN INVESTMENT OUTLOOK

Table 9: Proposed Investments, 2006 – 2010 (Source: Investment Fiji)

	2006	2007	2008	2009	2010	2011
No. of Projects Registered	441	398	245	79	94	133
Value of Proposed Investment (FJM)	1020	495	406	307	508	466
Proposed Employment	10340	7302	3637	5216	2108	2901

Table 10: Actual Investments, 2006 – 2010 (Source: Investment Fiji)

	2006	2007	2008	2009	2010	2011
No. of Projects Registered	210	195	118	45	16	21
Value of Proposed Investment (FJM)	372.2	266.1	718.8	53.9	5.86	42.71
Proposed Employment	1595	1436	1483	388	139	226

In terms of investments, both proposed and actual, there was a general decrease from 2006 to 2010, before picking up slightly in 2011. The low number of project implementation has been attributed to the lengthy timelines for approval processes, financing and lack of skilled expertise.

FISHERIES INVESTMENT

Table 11: Summary of Fisheries Investments, 2005 – 2009 (Source: Investment Fiji)

Year	Registered Company	Total local employment	Total Investment
2004	8	121	$4, 912,515
2005	7	234	$33,351,785.00
2006	9	64	$17,725,100.00
2007	4	79	$40,933,000.00
2008	5	40	$1,415,000.00
2009	2	200	$5,000,000.00
2010	3	32	$1,710,000.00
2011	2	18	$1,020,000.00
TOTAL	**40**	**788**	**$101,154,885.00**

Investor Confidence is critical for the growth of investment in one country. The national situation in 2006 was a critical factor that contributed to the decline in investment in 2006. In 2008, the global financial crisis was also evident in the decline in investment in 2008; however a rise was experienced in 2009 as the economy regained investor confidence, while dipping again in 2010 and 2011.

Table 12: Investment Projects registered by types from 2005 to 2009 (Source: Investment Fiji)

Nature of Investment	2004	2005	2006	2007	2008	2009	TOTAL
Pearl Farming	3	0	2	1	2	0	8
General Fishing	2	1	1	0			4
Long Line Fishing	0	0	4	0			4
Deep Sea Fishing	1	2	0	1			4
Aquaculture		0	1	0	2		3
Sea Weed Farming		0	0	0		1	1
Marine Processing & Cooler		1	0	0		1	2
Unloading of fish		1	0	0			1
Commercial cultivation of marine products		1	1	0			1
Processing of tuna		0	0	1			1
Fishing for processing & export		1	0	0			1
Marine Farming		0	0	0			1
Crab and Prawn farming		0	0	1			1
Beche-de-mer processing		0	0	0	1		1
Hatchery	1			4			1
Eel Fishing	1						1
TOTAL	**8**	**7**	**9**	**4**	**5**	**2**	**35**

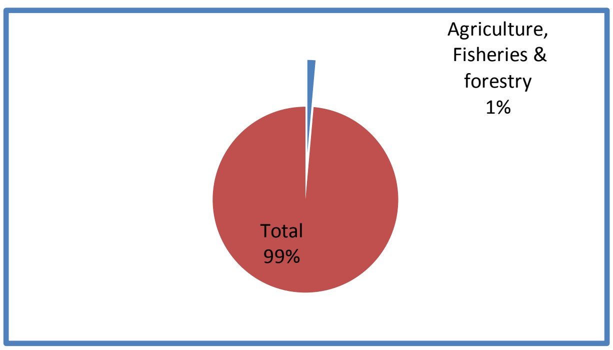
During the five year period, most investments were in the area of pearl farming. This has been due to the high demand of Fiji black pearls in the Japanese markets. Other main area of investment included Fishing, which comprised of Tuna long-lining.

NATIONAL EMPLOYMENT OUTLOOK

Table 13: Employment by Sector

	2002	2003	2004	2005	2006	2007	2008	2009
Agriculture, Fisheries & forestry	1.7	1.7	1.6	1.7	1.7	1.6	1.6	1.7
Mining & Quarrying	1.7	1.7	2.4	2.3	2.4	2.2	2.2	2.2
Manufacturing	28.9	25.5	25	26.3	27.1	27.4	27.6	27.8
Electricity, wtaer & Gas	2.7	2.3	2.2	2.7	2.5	2.3	2.3	2.3
Construction	3.5	6.4	7.1	6.2	6.7	9.4	9.4	9.5
Distribution (Inl. Tourism)	24.5	25.8	26.7	26.9	27.2	30.4	30.6	30.8
Transport & Communication	10.3	10.7	9.9	10.5	10.6	10.9	10.9	11
Finance, insurance and business services	6.4	7.8	8	7.9	8	9.5	9.6	9.6
Other services	38	37.8	39	39.4	40	40.1	42.4	42.7
Total	**117.7**	**119.7**	**121.9**	**123.9**	**126.2**	**133.8**	**136.6**	**137.6**

(Source: Ministry of Finance Economic & Fiscal Update 2011)



The Primary sector consists of 1% of the National total of employment, with the highest being the manufacturing and Tourism sector.

Figure 17: Comparison of the primary sector employs vs the total workforce (salary and wage earners)

EMPLOYMENT IN THE FISHERIES SECTOR

Table 14: Fisheries Employment, Annual Average (Department Estimates)

Category	Employment
Offshore Fishery	500
Inshore Artisanal	6000
Subsistence	20,000
Marine Aquarium	500
Aquaculture	500
Game & Charter Fishing	60
Pacific Fishing Company	1000
Other Fish Processors	600
Input Suppliers	185
Fish Markets	350
Fisheries Dept.	275
Slipways/ports	30
Total	**30,000**

Subsistence fishing is the main form of employment in the Fishing industry followed by inshore artisanal (commercial fishermen), processing companies, aquarium trade, aquaculture and offshore Fishery.

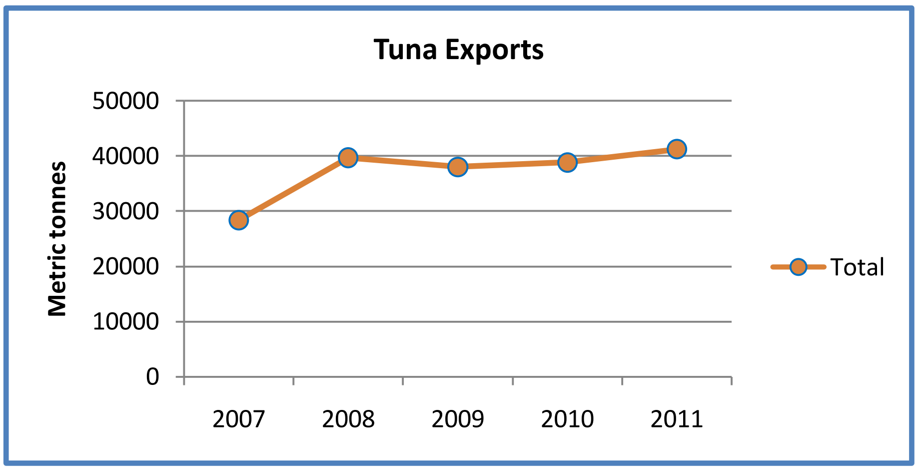
COMMODITY STATUS

OCEANIC/OFFSHORE FISHERIES

Table 15: Exports of Tuna and Tuna like Species

Table of Provisional Exports of Tuna & Tuna like Species 2007 - 2011						
Tuna (MT)		2007	2008	2009	2010	2011
	Fresh/Sashimi	6377	7856	7411	9955	11343
	Canning	16072	21604	22004	20345	23181
	Loins	3625	5106	3987	4103	4675
Tuna Like Species		2324	5106	4617	4441	2027
Total (MT)		**28,398**	**39,672**	**38,019**	**38,844**	**41,226**

(Source: WCPFC)



There is an increasing trend, though slight, noticed in the exports of tuna and tuna like species from 2007 to 2011, due to high demand in Japanese and US markets.

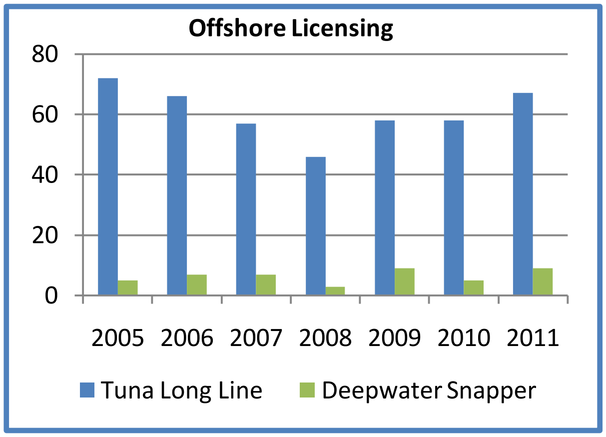
Figure 18: Tuna Exports from 2007 - 2011

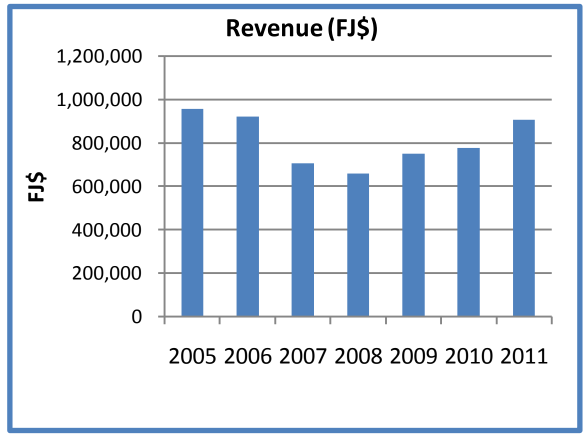
LICENSING

Table 16: Offshore Licensing & Revenue

	Offshore Licensing						
Type	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Tuna Long Line	72	66	57	46	58	58	67
Deepwater Snapper	5	7	7	3	9	5	9
Pole & Line	1	1					
Fiji/Japan Bilateral	2	6					
Total	**80**	**80**	**64**	**49**	**67**	**63**	**76**
Revenue (FJ$)	**957,660.00**	**923,880.00**	**707,000.00**	**661,000.00**	**752,000.00**	**779,000.00**	**908,990.00**
FJ/JP Bilateral Revenue	JPY 800,000	JPY 1,800,000					

Figure 19: Distribution of Offshore Licensing & Revenue

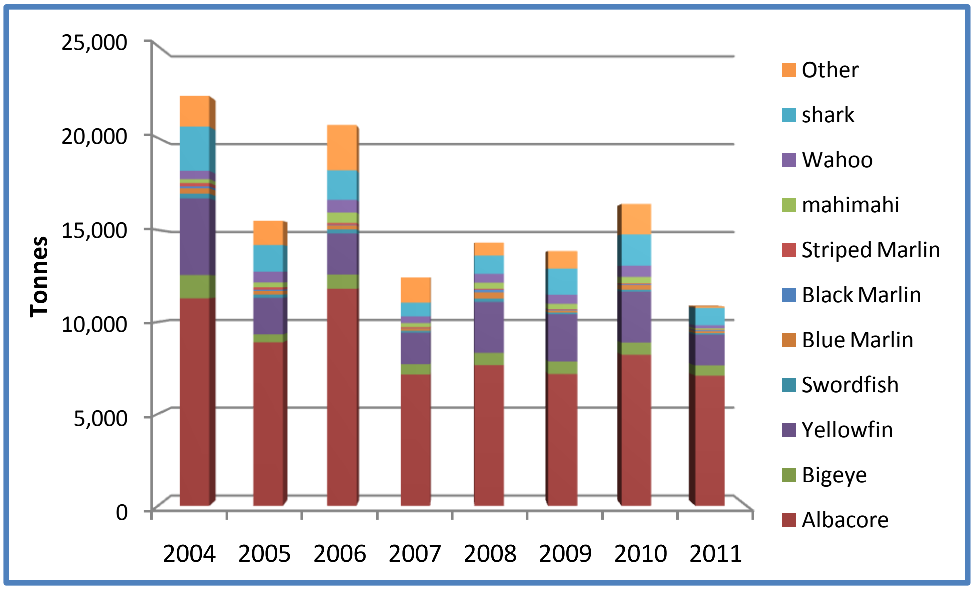




There was a drop in license number from 110 to 80 in 2005 which dropped to 60 in 2007 and the current cap is 70 License per year. The reduction is mainly due to Tuna sustainability issues.

Table 17: Species breakdown of Offshore Catches

	Total Catch (metric tonnes)							
Species	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Albacore	11,290	8,901	11,802	7,145	7,650	7,166	8221	7085
Bigeye	1,254	423	771	556	671	689	657	551
Yellowfin	4,164	1,989	2,231	1,721	2,763	2,564	2777	1671
Swordfish	261	177	223	105	183	97	104	83
Blue Marlin	295	199	217	109	344	101	244	108
Black Marlin	102	69	16	19	139	44	34	49
Striped Marlin	183	124	123	57	60	34	62	29
mahimahi	213	266	561	233	317	287	345	79
Wahoo	447	588	694	359	489	501	611	165
shark	2,411	1,443	1,601	743	992	1419	1701	939
Other	1,667	1,316	2,468	1,370	708	947	1657	83
Total	**22,287**	**15,495**	**20,707**	**12,417**	**14,316**	**13,849**	**16413**	**10842**

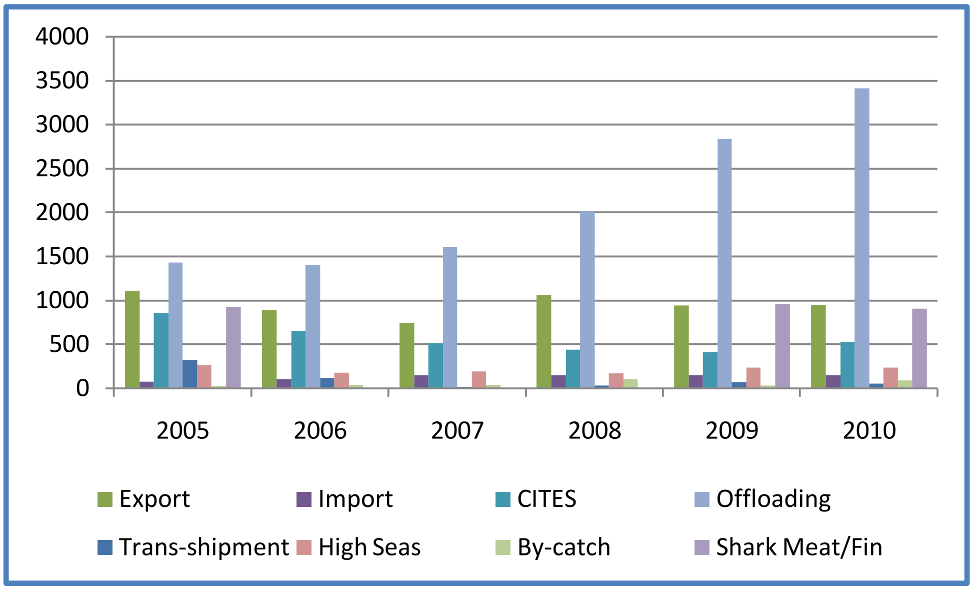


Albacore Tuna has been the species most caught followed by yellowfin and bigeye. Overall, the bulk of all offshore catches are Tuna. There is also a decline in total catch from 2006 due to the reduction in the number of Licenses. The Cap was reduced from 110 to 70.

Figure 20: Distribution of Offshore Species caught

Table 18: Fisheries Permitting

	Fisheries Permitting System						
Permit	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Export	1347	1110	892	743	1055	939	950
Import		75	99	145	143	144	147
CITES	901	851	649	513	439	409	521
CITES Revenue (FJ$)	***26,955***	***25,365***	***19,455***	***15,270***	***13,170***	***12,345***	***15,891.75***
Offloading	2039	1429	1399	1605	2014	2831	3409
Trans-shipment	212	321	116	14	26	68	54
High Seas	183	259	174	189	171	235	231
By-catch	44	24	37	33	105	28	86
Shark Meat/Fin		926				958	902
Total Permits	**4,726**	**4,995**	**3,366**	**3,242**	**3,953**	**5,612**	**6,300**



Offloading permits are the most issued permits followed by export and CITES permits. Offloading permits are required by vessels to offload their catch at the ports.

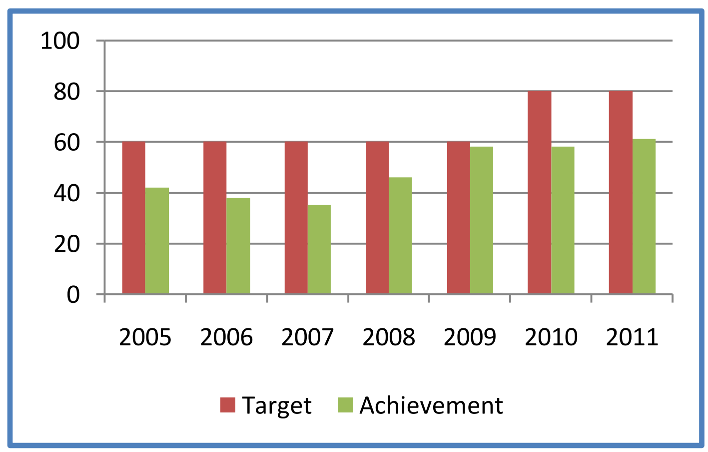
Figure 21: Distribution of Fisheries Permits

Observer Program

Table 19: Observer placement coverage

Observer Placement			
Year	**Target**	**Achievement**	**%**
2005	60	42	70
2006	60	38	63
2007	60	35	58
2008	60	46	76
2009	60	58	96
2010	80	58	72.5
2011	80	61	76.2

Figure 22: Observer Placements



Observer placements target was increased to 80 in 2010 to ensure better monitoring of vessels and 76% coverage was achieved in 2011). The highest achievement was in 2009 when 96 percent of the target was completed. The lower percentage in other years has been attributed to lack of manpower to achieve the targets.

Table 20: Vessel Unloading & Port Sampling

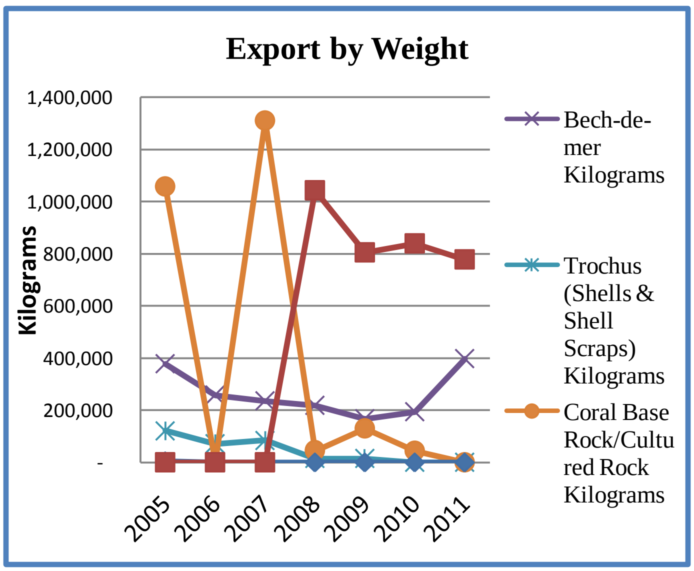
	Licensed	Non-Licensed/Fiji Based	Foreign	Trans-shipment	Total Unloading	Vessels Sampled
2006						
Quarter 1	276	131	18	1	426	34
Quarter 2	281	110	16	8	415	29
Quarter 3	291	137	20	3	451	38
Quarter 4	277	128	16	7	428	7
Year Total	**1125**	**506**	**70**	**19**	**1720**	**108**
2007						
Quarter 1	215	93	23	0	331	41
Quarter 2	219	102	20	0	341	32
Quarter 3	217	129	44	8	398	25
Quarter 4	213	120	16	0	349	17
Year Total	**864**	**444**	**103**	**8**	**1419**	**115**
2008						
Quarter 1	135	161	11	4	311	25
Quarter 2	161	162	13	0	336	16
Quarter 3	164	198	11	0	373	39
Quarter 4	173	231	20	0	424	23
Year Total	**633**	**752**	**55**	**4**	**1444**	**103**
2009						
Quarter 1	134	190	6		330	40
Quarter 2	174	207	29	2	412	40
Quarter 3	157	264	27	1	449	25
Quarter 4	162	236	24	2	424	20
Year Total	**627**	**897**	**86**	**5**	**1615**	**125**
2010						
Quarter 1	157	188	43	5	393	45
Quarter 2	191	181	67	11	450	22
Quarter 3	230	200	65	13	508	25
Quarter 4	203	232	46	3	484	20
Year Total	**781**	**801**	**221**	**32**	**1835**	**112**
2011						
Year Total	**810**	**421**		**41**		**53**

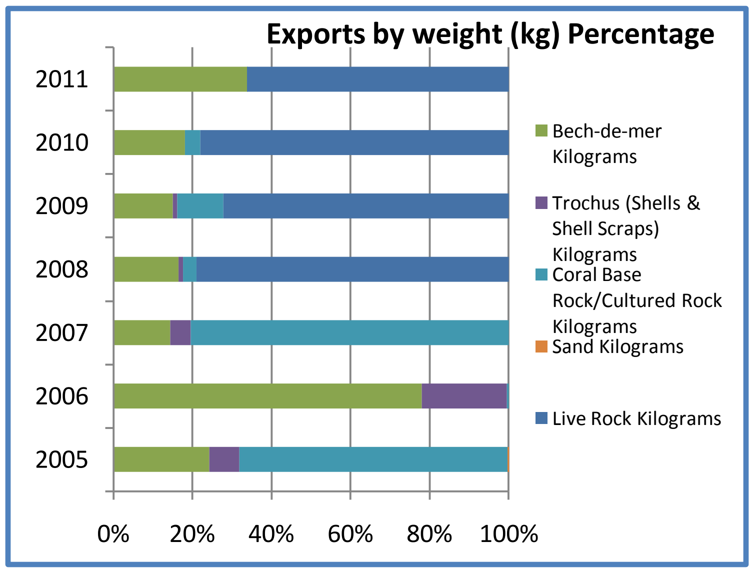
INSHORE/COASTAL AND INLAND FISHERIES

Table 21: Inshore Commodity Exports

Commodity	Unit	2005	2006	2007	2008	2009	2010	2011
Bech-de-mer	Kilograms	378,190	257,820.00	235,728	218,584.28	167,362.05	194,597	397,517
Trochus (Shells & Shell Scraps)	Kilograms	121,250	71,000	83,942	14,751	14,062.27	0	0
Coral Base Rock/Cultured Rock	Kilograms	1,059,000	1,530	1,311,362	45,220	129,866	43,075	85.062
Sand	Kilograms	4,400	0	0	0	0	0	0
Live Rock	Kilograms	0	0	0	1,043,064	805,701	839,898	778,187
Hard Corals	Pieces	117,791	156,775	75,640	122,274	73,310	68,852	118,242
Soft Corals	Pieces						12,779	10,151
Ornamental Fish	Pieces	154,999	242,281	187,236	190,861	143,636	140,158	208,239
Ornamental Invertebrates	Pieces	23,817	48,384	35,727	39,644	30,376	31,019	49,938
Trochus Button and Button Blanks	Pieces	14,698,000	15,830,000	11,300,000	19,450,000	3,400,000	0	0
Live Clams	Pieces	0	900	58	0	0	0	0

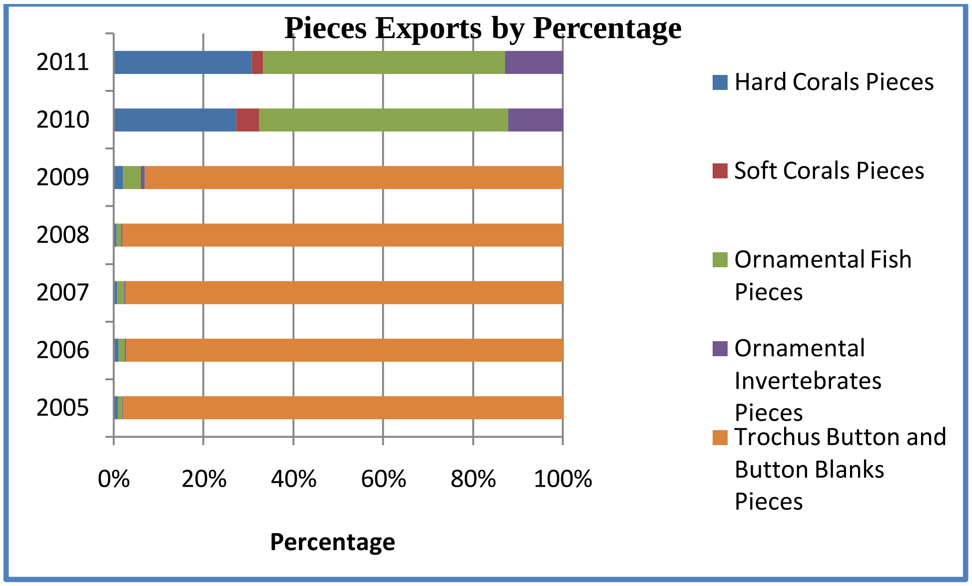
Figure 23 & 24: Distribution of Exports by Weight and Percentage





Beche-de-mer is the most significant export commodity by weight due its high value in the Chinese market. Trochus shell and buttons also dropped to zero as there were no exports due to a lack of market for this item. Live rock experienced a big growth in 2007 due to its demand in USA for the aquarium industry. Ornamental fish and invertebrates maintained a relatively steady trend during the period (Figure 20-21).

Figure 25: Exports by Unit Piece (Percentage)

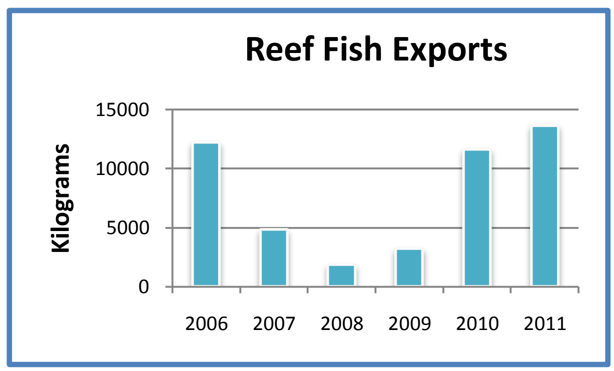


Trochus button and button blanks make up the bulk of exports by unit piece, until exports stopped in 2010 and 2011 due to market unavailability. Ornamental fish and corals now account for most of the exports by unit piece.

Table 22: Reef Fish Exports

Year	Q1	Q2	Q3	Q4	Total
2011	802	4299	4715	3808	13,624
2010	1410.1	2294.35	3270.1	4651.4	11625.95
2009		1399.9	1820.66		3220.56
2008		640		1200	1840
2007	1558	1895.5	1286.5	76.9	4816.9
2006	2156.9	6974.51	3082.78		12214.19

Figure 26: Export of Reef Fishes



Reef Fish exports reached a peak in 2006 before falling a low in 2008. It picked up again between 2009 & 2010 and peaked to a new high of a little over 12 tonnes in 2011. Exports are mainly to countries with large population of Fiji Nationals esp. New Zealand, Australia and the USA where demand is very high for Fiji seafood.

Table 23: Licensing Data

Year	2005	2006	2007	2008	2009	2010	2011
Fishing License	1,372	1,077	1,324	1,265	1,610	2,499	3000
Registered Vessels	1,114	1,151	1,370	1,276	1,500	2,602	2750
Number of Crew	2,550	2,827	3,543	3,210	4,200	6,901	7000
Ice sale (kg)	1,779,000	1,750,000	1,611,000	1,984,000	1,745,000	1,714,000	1,700,000
Ice Revenue (FJ$)	207,067	219,250	268,957	191,182	210,000	206,027	202,000

Figure 27: Inshore Licensing

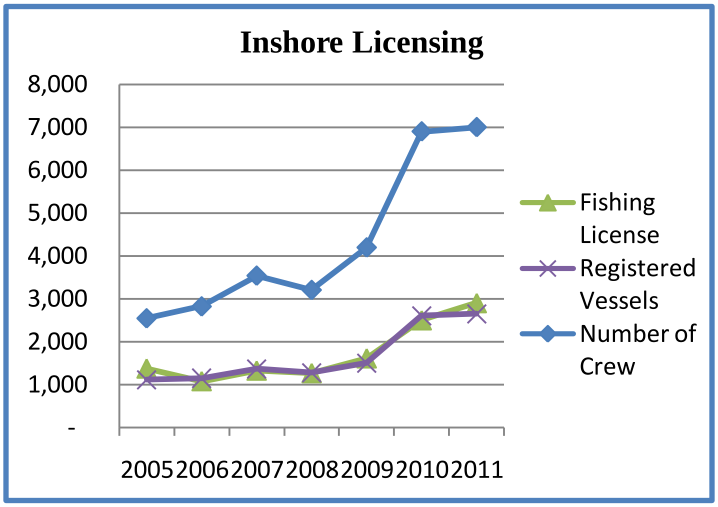
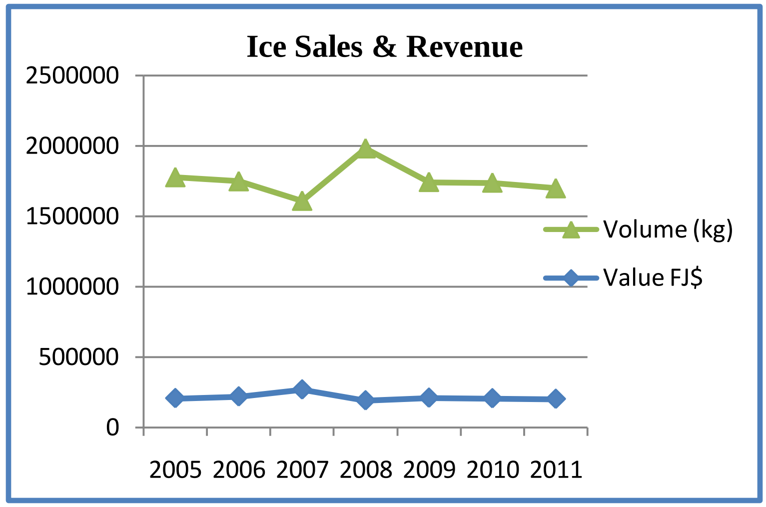


Figure 28: Ice Sales



Licensing figures reached an all time high of about 2900 in 2011 due the NDP program targeting the Northern division (table 22). Almost 50% of the total licenses are from the Northern division. Assistance was given to the local fishing industry in terms of boats and engines to encourage more fishing and utilize the big demand for fresh fish in Viti Levu. Consequently there is huge demand for ice which is affected by continuous breakdowns in Ice Plants located in the various stations and has only maintained a steady trend as opposed to the increasing demand set by the increase in the number of fishermen.

Table 24: Domestic Catch Landings of Reef Fish & Invertebrates

	2006	2007	2008	2009	2010	2011
FinFish (Volume MT)	4,922	4,450	4,886	4,801	4,750	4675
FinFish (Value FJ$)	22,500,000	19,026,307	24,755,164	25,000,000	26,000,000	28,000,000
Invertebrate (Volume MT)	2,530	2,527	2,724	2,450	2,780	2620
Invertebrate (Value FJ$)	10,000,000	9,796,187	9,388,257	10,500,000	11,000,000	11,500,000

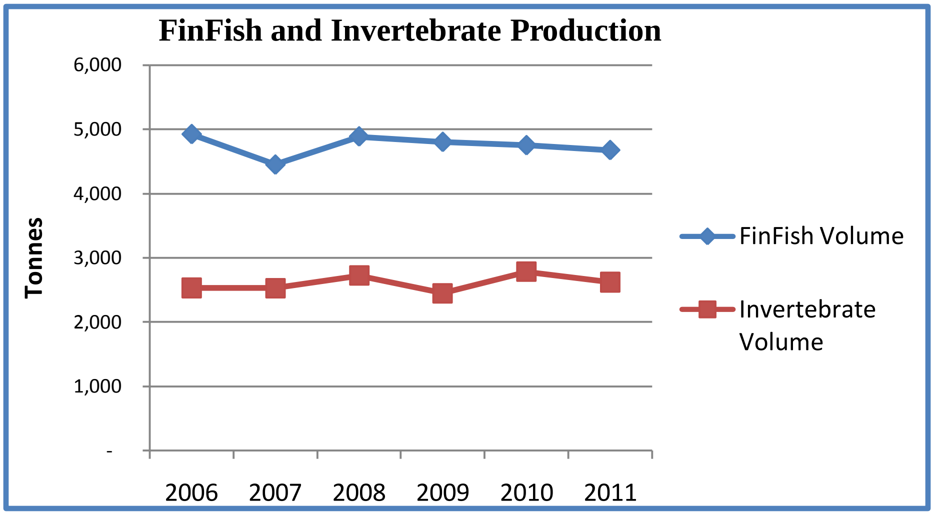


Figure 29: Volume of Domestic Retails of Reef Fish and Invertebrates

Data is collected via Markey survey in the respective divisions and the figure is raised to National Level. Fish is sold in the various fish markets and outlets throughout the country.

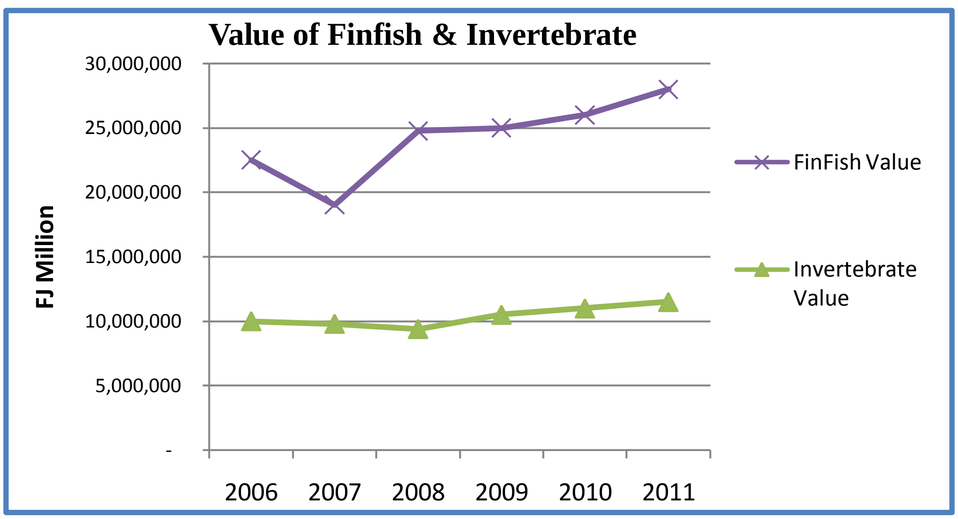


Figure 30: Value of Catch Landings

Finfish and Invertebrates are caught by licensed fishermen in the 4 divisions and retailed in the various market outlets like shops, roadsides, market stalls, butchers, etc. While there is an average of about 4500 tonnes of fish and 2500 tonnes of invertebrates sold/retailed yearly, there has been an increase in the value of these due to increase in the retail prices of fish and inverts. The continuous price rise has been attributed to the rising operating cost in fishing, esp. fuel. The demand also dictates pricing and currently there is a big demand for fish in the major population centers of the country.

AQUACULTURE

Freshwater Aquaculture

Table 25: Major Freshwater Commodity Details

Year	Tilapia			Prawns		
	No. of Farmers/Farm	**Production (Tonnes)**	**Value (FJ$ M)**	**No. of Farmers**	**Production (Tonnes)**	**Value (FJ$M)**
2006	276	400	2.45	10	3.4	0.102
2007	119	142.6	0.69	10	24	0.72
2008	250	195	1.14	15	24.75	0.74
2009	200	200	1.1	19	13.1	0.4
2010	158	190	1.07	35	17	0.51
2011	209	200	1.2	73	18.51	0.555
2012(f)	300	200	1.2	50	26	0.78

Table 26: Farm Distribution by Province, 2011

Province	No. of Farmers	ponds	Species
Ra	20	31	Tilapia, Prawn
Ba	20	57	Tilapia, Prawn
Nadroga/Navosa	27	49	Tilapia, Prawn
Rewa	11	20	Tilapia, Prawn
Namosi	15	31	Tilapia, Prawn
Serua	10	49	Tilapia, Prawn
Tailevu	89	149	Tilapia, Prawn
Naitasiri	59	114	Tilapia, Prawn
Macuata	8	9	Tilapia, Prawn
Cakaudrove	5	18	Tilapia, Prawn
Bua	1	4	Tilapia, Prawn
Total	**265**	**531**	

Most of these farms are semi-commercial and subsistence based with a few fully commercial.

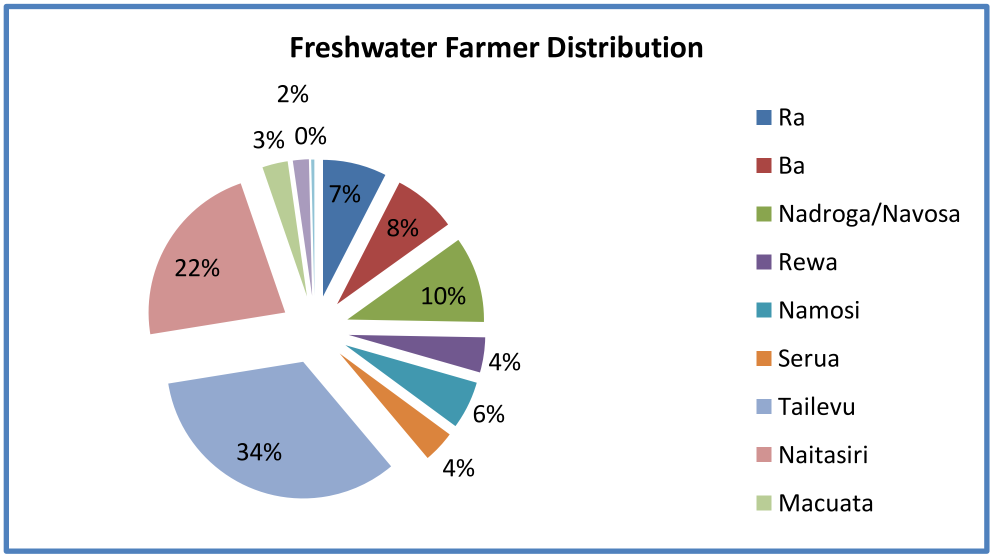


Figure 31: Distribution of Freshwater Farms by Province

Majority of freshwater farms (70%) are located in the Central division in the provinces of Tailevu and Naitasiri, followed by West (25%) and the Northern division (5%).

Table 27: Freshwater Production data

Tilapia		**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Volume	Tonnes	85	400	142.6	195	200	190	195
value	FJ$	425,000	2,000,00 0	713,000	975,000	1,000,000	950,000	1170000
Prawns								
Volume	Tonnes	1.7	3.4	24	24.74	13.1	17	18.5
value	FJ$	51,000	102,000	720,000	742,200	393,000	510,000	555,000

Production levels of Tilapia are at a yearly average of 200 tonnes with a value of a million dollars. Prawn production is heavily dependent on PL supply and the production has been low when there was very little or insufficient supply of PL's.

<u>Brackish-water Aquaculture</u>

Shrimp Farming

- 5 commercial farms, currently not in operation due to insufficient PL supply
- 5 small community farms, 2 in Tailevu & 3 in West

Table 28: Shrimp Production Data

	Unit	2005	2006	2007	2008	2009	2010	2011
Volume	Tonnes	2.7	20	13	10.5	9	0.5	0.3
Value	FJ$	108,000	800,000	520,000	420,000	360,000	20,000	9,000

A decrease in production from 2006 has been contributed to the lack of sufficient PL supply to the large commercial farms for stocking. The lowest figure was recorded in 2010 and 2011 due to the fact that none of the 5 big commercial farms were farming shrimp due to insufficient PL supply. The figures from these years are from small community farms in Ra. Currently there is a lack of a commercial hatchery that can supply PL's on a consistent basis for large scale farming.

Milkfish Farming

- Community farm in Vitawa, Ra.
- Farming milkfish (Chanos chanos) or Yawa
- 6 ponds altogether

Table 29: Brakishwater Farm Distribution

Province	Farms	Ponds	Species
Ra (Vitawa Milkfish Project)	3	8	Milkfish, Shrimp
Ba	1	5	Shrimp
Nadroga	1	1	Shrimp
Rewa	4	6	Shrimp
Tailevu	2	4	Shrimp
Serua	3	14	Shrimp
Bua	1	12	Shrimp
Macuata	1	20	Shrimp
Total	**16**	**70**	

Of the 16 farms stated above, currently only a few small farms are active that is semi-commercial community based. The large commercial farms are inactive due to lack of PL supply.

Mari culture

Table 30: Operational Pearl Farms

No.	Farm Name	Farm Site	Province
1	Taukena Pearl Farm Ltd	Basa Bay	Bua
2	Valili Pearl Farms	Wailevu	Cakaudrove
3	Kioa Island Pearls	Kioa Island	Cakaudrove
4	J. Hunter Pearls	Nawi Island	Cakaudrove
5	Navatadua Pearl Farm	Raviravi	Macuata
6	Tokino Pearls Ltd	Nanuyakoto Island	Ra
7	Pearls of Paradise Ltd	Malake Island,	Ra
8	M. K Pearls Ltd	Malake Island	Ra
9	Tave Pearls Ltd	Malake Island	Ra
10	Peckham Pearls	Matei Point	Taveuni
11	Civa Pearls (Fiji) Ltd	Bouma	Taveuni

Table 31: Spat Collection Sites

No.	Site	Location
1	Galoa Island Spat Site	Bua
2	Navuniyasawa Spat Site	Daku, Cakaudrove
3	Nukubalavu Spat Site	Daku, Cakaudrove
4	Wailevu Spat Site	Wailevu, Cakaudrove
5	Kioa Island Spat Site	Kioa Island
6	Ligaulevu Spat Site	Mali Island,Macuata

Table 32: Pearl Production Data

Year	2005	2006	2007	2008	2009	2010	2011
Exports (pieces)	37,416	41,802	39,407	53,811	55,324	17,672	35,914

A big drop in export in 2010 has been due to the effects of tropical cyclone Tomas that extensively damaged the pearl farms in the Northern division reducing black pearl harvest & production.

Table 33: Seaweed Production Data

	Unit	2005	2006	2007	2008	2009	2010	2011
Volume	Tonnes	113.4	115	60	64.4	44	56	46
value	FJ$	90720	92000	48000	51520	44,000	56,000	46,000

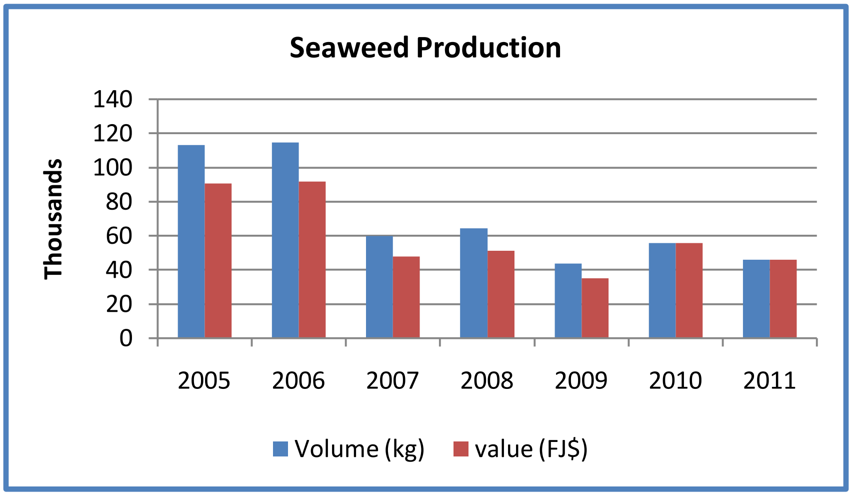


Figure 32: Seaweed production by volume & Value

Seaweed is earmarked to be a major income generator for rural maritime communities, due to its low maintenance and short maturing time. The production dropped in 2007 due to extensive damage caused by tropical cyclone Tomas, to some of the seaweed farms. Another reason for the fall in production was that seaweed farmers in Lau, where most farms are, moved towards the more rewarding yasi and sandalwood product sales during the period 2007 to 2010. The increase in value has been attributed to good prices paid for dried seaweed. A ton of dried seaweed fetches as much as FJ$1000 per ton which is an increase of about 30% from previous years. This is an added incentive, together with government's campaign will boost production as more seaweed will be planted.

Glossary

Aquarium Trading Companies

1. Aquarium Fish (Fiji) Ltd

P. O. Box 19,

Deuba

Fiji Islands

Ph: +679 345 0493

Email: aff@connect.com.fj

Export products- Live coral, Ornamental fish, Assorted invertebrates, Hard coral and Soft coral.

Destination- Japan, UK, Taiwan and USA

2. Ocean 2000 Ltd

P. O. Box 17650

Suva

Fiji Islands

Ph: +679 362 5319

Email: o2kfijiislands.com

Export products- Live coral, soft coral and Live rock

Destination-USA, UK

3. REL Fisheries

Walu Bay

Suva

Fiji Islands Majority of freshwater farms (70%) are located in the Central division in the provinces of Tailevu and Naitasiri, followed by West (25%) and the Northern division (5%).

Ph: +679 922 9976 Email: lote_rasiga@hotmail.com

Export product- Live rock, Hard coral, Ornamental Fish

Destination- UK, USA and France

4. Walt Smith International (Fiji) Ltd

P. O. Box 4466,

Lautoka.

Fiji Islands

Ph: +679 666 5045

Email: waltsmith@connect.com.fj

Export product- Live rock, Hard coral, Soft coral, Ornamental Fish, Assorted Invertebrates and Cultured Rock.

Destination- Japan, Singapore, NZ, China, USA, UK, Korea, Germany, Argentina, Mexico, Taiwan and Canada.

5. Waterlife Exporters (Fiji)

Cnr Vou & Lami Street

Wailada Industrial,

Fiji Islands

Email: info@waterlifefiji.com

Export product- Live rock, Hard coral and Soft coral

Destination- USA and Canada

Companies Involved in Exporting/Processing Fish in 2011

Company Name	Commodity	Phone

PAFCO	Canned Tuna	3311852/440055
Celtrock Holdings Ltd	Loined Fish	3303705
Tosa Bussan Fiji Ltd	Processed Fish	3303764
Golden Ocean Fish Ltd	Processed Fish	3313666
Tripacific Marine Ltd	Processed Fish	3361627
Sunlog Investments Fiji Ltd	Sashimi Tuna	3100470
Yatu Lau Fishing Comp. Ltd	Sashimi Tuna	3305368
Yavusa Tonga Fishing Comp. Ltd	Sashimi Tuna	3305368
Arianna Limited	Sashimi Tuna	3308088
Sunshine Fisheries Ltd	Sashimi Tuna	3311373
Ocean Harvest Fiji Ltd	Sashimi Tuna	3312666
Win Full Fishing Company Ltd	Sashimi Tuna	3312666
Wistar Fiji Ltd	Sashimi Tuna	3312666
Solander Pacific Ltd	Sashimi Tuna	3314819
Agape Fishing Enterprise	Sashimi Tuna	3315669
Services Marine Ltd	Sashimi Tuna	3317446
Kaiwaitui Fishing Comp. Ltd	Sashimi Tuna	3317544
Hangton Pacific Company Ltd	Sashimi Tuna	3319856
Blue & Green Marine Trading Comp. Ltd	Sashimi Tuna	3321538
Fiji Fish Marketing Group	Sashimi Tuna	3361077
HOU Fisheries Ltd	Sashimi Tuna	3361077
Yun Yow Fisheries (SP) Comp. Ltd	Sashimi Tuna	3362599
Seafresh Fiji Ltd	Sashimi Tuna	3363928
Mannah (Fiji) Ltd	Sashimi Tuna	3603838