

## FISHERIES SITUATION July - September 2003

### *Abstract*

*The fisheries output during the third quarter of 2003 increased by 36,234.4 metric tons. This was 4.68 percent higher than the same quarter of 2002. Commercial and municipal fisheries gained 8.61 percent and 4.40 percent, respectively, whereas the aquaculture had a modest increase of 1.20 percent.*

Of the total production, 35 percent were shared each by the commercial and aquaculture sub sectors, while the municipal fisheries contributed 30 percent.

The increase in fisheries production was attributed to fair weather that prevailed during the quarter favoring fishing activities in most of the regions. Aquafarm operators were able to harvest more due to the following reasons: 1) dispersal of Genetically Improved Farm Tilapia (GIFT) and Genetically Enhanced Tilapia (GET EXCEL) strain fingerlings; 2) technology transfer imparted by the LGU; and 3) sufficient supply of rain water thereby encouraging farmers to expand their area.

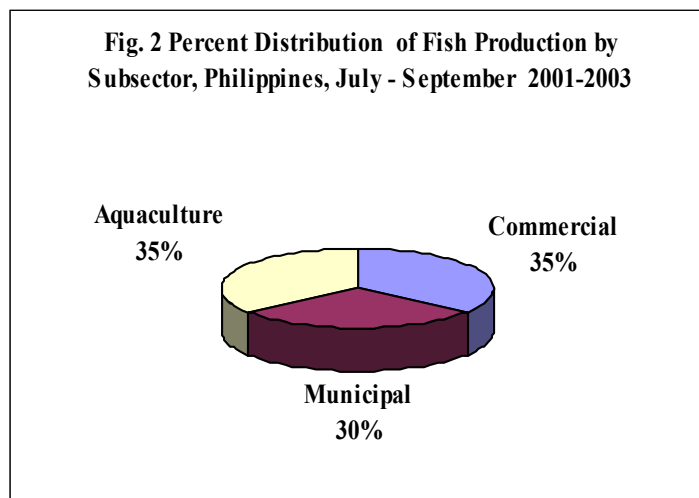
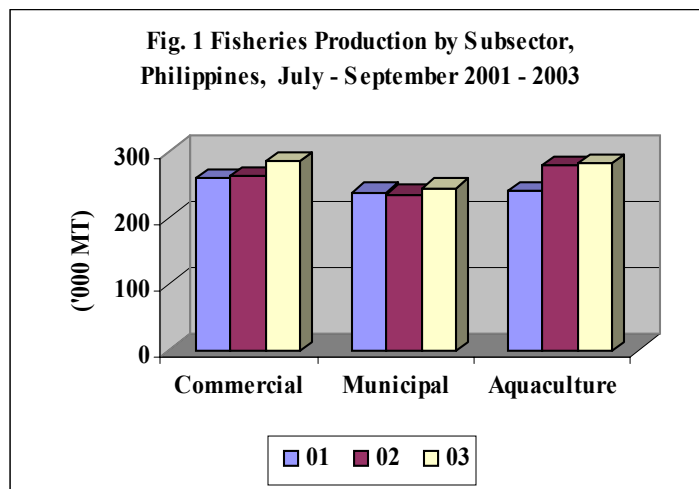


TABLE 1. FISHERIES: Volume of production by region, by sector, Philippines, July - September 2001 - 2003 \*

(METRIC TONS)

REGION	FISHERIES			COMMERCIAL			MUNICIPAL			AQUACULTURE		
	% CHANGE 03/02			% CHANGE 03/02			% CHANGE 03/02			% CHANGE 03/02		
	2001	2002	2003*	2001	2002	2003 y	2001	2002	2003 y	2001	2002	2003 y
<b>PHILIPPINES</b>	<b>735,344.3</b>	<b>774,691.8</b>	<b>810,926.2</b>	<b>4.68</b>	<b>268,378.0</b>	<b>262,718.0</b>	<b>285,332.0</b>	<b>237,383</b>	<b>234,051</b>	<b>244,348</b>	<b>277,922.8</b>	<b>281,246.2</b>
CAR	773.3	646.2	560.8	(13.22)	459.0	803.0	886.0	255	214	202	432.2	358.8
I	11,146.0	15,405.5	15,956.0	3.57	3,092.0	3,677.0	3,655.0	4,378	5,202	6,035	9,400.5	9,035.0
II	8,266.0	9,763.0	9,683.7	(0.81)	2,537.0	2,004.0	2,110.0	3,627	4,667	4,732	1,419.0	1,296.7
III	37,592.0	29,172.2	29,306.9	0.46	36,339.0	35,871.0	34,334.0	4,608	3,429	3,945	23,739.2	23,251.9
NCR - M.M.	37,957.0	38,350.0	35,512.7	(7.40)	23,404.0	22,182.0	21,129.0	1,550	658	477	1,821.0	701.7
IV - A	67,279.0	76,181.9	77,592.0	1.85	8,425.0	10,124.0	12,253.0	26,742	32,971	33,030	21,028.9	23,433.0
IV - B	51,224.0	58,473.0	64,716.2	10.68	8,777.0	8,045.0	9,243.0	24,848	27,862	31,719	20,487.0	20,744.2
V	38,752.0	36,473.1	40,598.7	11.31	34,771.0	32,181.0	34,639.0	24,424	22,921	24,570	5,507.1	6,785.7
VI	94,781.0	93,100.4	102,479.2	10.07	16,789.0	15,978.0	15,143.0	32,543	28,605	28,611	32,314.4	39,229.2
VII	45,550.0	53,462.5	45,770.8	(14.39)	8,892.0	9,435.0	11,496.0	10,092	12,877	12,672	18,669.0	17,955.8
VIII	22,921.0	24,413.0	28,866.1	18.24	42,448.0	54,223.0	56,685.0	9,868	9,307	11,159	4,161.0	6,211.1
IX	97,861.0	109,636.0	108,494.6	(1.04)	9,940.0	10,088.0	10,615.0	32,922	30,885	30,919	22,491.0	20,890.6
X	24,000.0	24,148.0	27,014.6	11.87	3,297.0	3,841.0	3,646.0	6,780	7,150	7,253	7,280.0	9,146.6
XI	13,326.0	14,231.3	13,881.9	(2.46)	34,598.0	31,818.0	46,224.0	7,416	7,223	7,098	2,613.0	3,167.3
XII	48,679.0	45,436.8	59,944.2	31.93	23,225.0	21,379.0	22,163.0	10,220	9,292	8,972	3,861.0	4,748.2
ARMM	111,150.0	121,474.2	126,865.2	4.44	1,385.0	1,069.0	1,111.0	19,713	19,023	19,689	68,212.0	85,013.2
CARAGA	24,087.0	24,324.7	23,682.6	(2.64)				17,397	11,765	13,265	5,305.0	11,490.7

\* - Preliminary

Note: For aquaculture, figures may not add up to the totals due to rounding-off.  
Updated Nov 21, 2003

## Commercial Fisheries

Commercial fishing indicated output gains during the third quarter of 2003 compared to the same quarter of last year (Table 2). Production reached 285,332 metric tons, about 22,614 metric tons (8.61%) higher than last year's level. Commercial fish catch unloaded at the private landing centers, landing centers managed by the Philippine Fisheries Development Authority (PFDA), and at the traditional landing centers exhibited increments. Fish catch unloaded at the private landing centers was the major source of growth posting as much as 10,031 metric tons (19.62%). An increase in production of 8,521 metric tons (16.65%) from the unloadings at the PFDA managed landing centers also boosted the performance of commercial fisheries. Likewise, fish catch unloaded at the traditional landing centers increased by 4,264 metric tons (2.64%) from last year's level. The positive growth in production was largely a result of fair weather which favored fishing activities in most of the regions. The increase was also achieved through more fishing trips as fishers took advantage of the abundance of the roundscads, frigate tuna, Indian sardines, anchovies, Indian mackerel etc. Fish catch unloaded at the landing centers managed by the Local Government Unit (LGU) on the other hand, experienced a very minimal decline by about two (2) metric tons (1.33%).

Majority of the regions (10 regions) surpassed their last year's third quarter production performance. Region XII showed a remarkable gain of 14,406 metric tons (45.28%) due to unloadings of foreign and big fishing vessels in General Santos City. Production in Region VIII fared well as it posted an increment of 2,061 metric tons (21.84%). The uptrend in production was attributed to improved fishing technique, effect of artificial reef and the coordinated move of the LGUs against illegal fishing operations by granting police power to implementors of the "Bantay Kalikasan". Moreover, commercial fishing vessel operators were encouraged by BFAR to fish in the high seas of the Pacific due to the granting of moratorium on fishing operations in areas which were identified overfished. Commercial fish catch in Region IV-B increased by 2,129 metric tons (21.03%) due to the frequent fishing operations of fishermen brought about by higher market prices.

On the other hand, six (6) regions exhibited a production downtrend with Region VII posting decrease by 835 metric tons (5.23%), Region XI, 195 metric tons (5.08%), Region IV-A, 1,053 metric tons (4.75%) and NCR-M.M., 1,537 metric tons (4.28%). The rest experienced minimal decline in their unloadings due to reduced fishing trips because of strong winds caused by tropical depression while some commercial boats were drydocked for repair.

TABLE 2. COMMERCIAL FISHERIES: Volume of production by region, by type of landing center, Philippines, July - September 2001 - 2003\*

(METRIC TONS)

REGION	COMMERCIAL						PRIVATE			PFDA			LGU			TRADITIONAL			% CHANGE 03/02
	2001		2002		2003		% CHANGE 03/02			2001		2002		2003		% CHANGE 03/02			
<b>PHILIPPINES</b>	<b>258,378</b>	<b>262,718</b>	<b>285,332</b>	<b>8.61</b>	<b>44,483</b>	<b>51,123</b>	<b>61,154</b>	<b>19.62</b>	<b>50,769</b>	<b>49,972</b>	<b>58,293</b>	<b>16.65</b>	<b>293</b>	<b>150</b>	<b>148</b>	<b>162,833</b>	<b>161,473</b>	<b>165,737</b>	<b>2.64</b>
CAR																			
I	459	803	886	10.34					104	250	97	(61.20)				355	553	789	42.68
II	3,092	3,677	3,655	(0.60)					3,092	3,677	3,655	(0.60)				3,092	3,677	3,655	(0.60)
III	2,537	2,004	2,110	5.29					2,537	2,004	2,110	5.29				2,537	2,004	2,110	5.29
NCR - M.M.	36,339	35,871	34,334	(4.28)					33,389	33,704	33,642	(0.18)				2,950	2,167	692	(68.07)
IV - A	23,404	22,182	21,129	(4.75)					1,150	1,809	2,270	25.48				22,254	20,373	18,859	(7.43)
IV - B	8,425	10,124	12,253	21.03					8,425	10,124	12,253	21.03				8,425	10,124	12,253	21.03
V	8,777	8,045	9,243	14.89	2,040	2,203	2,921	32.59								6,737	5,842	6,322	8.22
VI	34,771	32,181	34,639	7.64	1,311	1,144	1,784	55.94	1,261	1,707	3,613	111.66				32,199	29,330	29,242	(0.30)
VII	16,789	15,978	15,143	(5.23)												16,789	15,978	15,143	(5.23)
VIII	8,892	9,435	11,496	21.84												8,892	9,435	11,496	21.84
IX	42,448	54,223	56,685	4.54	16,967	25,545	25,548	0.01	3,666	1,797	2,166	20.53				21,815	26,881	28,971	7.78
X	9,940	10,088	10,615	5.22									293	150	148	9,647	9,938	10,467	5.32
XI	3,297	3,841	3,646	(5.08)	17	19	36	89.47	1,514	1,935	1,730	(10.59)				1,766	1,887	1,880	(0.37)
XII	34,588	31,818	46,224	45.28	24,148	22,212	30,865	38.96	9,685	8,770	14,775	68.47				765	836	584	(30.14)
ARMM	23,225	21,379	22,163	3.67												23,225	21,379	22,163	3.67
CARAGA	1,385	1,069	1,111	3.93												1,385	1,069	1,111	3.93

\* - Preliminary

## **Municipal Fisheries**

A positive change of 4.40 percent in the over-all performance of the municipal fisheries was registered for the July to September quarter (Table 3). Volume of fish unloaded by municipal fishing boats reached 244,348 metric tons, higher by 10,297 metric tons from the 234,051 metric tons posted in the same period last year.

Both marine and inland fisheries indicated positive growth rates of 4.80 percent and 2.25 percent, respectively. Volume of fish landed by marine fishermen rose by 9,465 metric tons, from 197,006 metric tons of the same period last year to 206,471 metric tons this year. Similarly, catch from inland fishing increased by 832 metric tons, from 37,045 metric tons same quarter last year to 37,877 metric tons this year. Marine and inland sub-sectors performed well in spite of the occurrence of typhoons in most parts of the country during the quarter.

Regional reports showed that Regions VIII, I, IV-B, CARAGA and III recorded the biggest volume of unloadings with 16.44 percent, 16.27 percent, 13.90 percent, 13.42 percent and 12.56 percent, respectively. Moderate increases were registered for ARMM (7.43 percent), Region V ( 6.87 percent) and Region II (2.89 percent). Among provinces, Palawan contributed the biggest volume of unloadings with 3,798 metric tons followed by Camarines Sur, 1,250 metric tons, Camarines Norte, 656 metric tons and Eastern Samar, 618 metric tons. The considerable improvement in the performance of marine fisheries was attributed to the intensive campaign against illegal fishing and close monitoring on the use of destructive fishing gears like trawl by Bantay Dagat Task Forces. Similarly, the establishment of fish shelters and fish sanctuaries, installation of Lambaklad in Lagonoy Gulf, Bicol Region, and increase in catch of fimbriated and Indian sardines, tuna, anchovies, siganid, wrasses, squid, big-eyed scads, roundscads contributed to the output gain. Moreover, the support of Local Government Units (LGUs) through extension of technical assistance to fishermen and strengthening of coastal resource management also contributed to the increase efficiency of fishermen.

Meanwhile, Regions II, VI, IX and X recorded slight increases from last year's level of marine production due to adverse effects of northeast and southwest monsoon which consequently reduced frequency of fishing trips. On the other hand, drop in volume of fish landed was registered by the National Capital Region (NCR), Regions XII and IV-A with corresponding decreases of 27.51 percent, 6.54 percent, 3.97 percent, respectively. Rough sea condition prevented sustenance fishermen from doing their regular fishing activities. The reported high level of water pollution in Manila Bay also contributed to the decline in fish catch.

For inland fishing, the regular seeding dispersal program in rivers and lakes undertaken by BFAR greatly contributed to the 2.25 percent growth in fish catch. Region VIII posted a robust increase of 159.56 percent followed by Regions V, III, IX, XI and I with 27.30, 19.62, 16.67, 15.00 and 12.97 percentage increments, respectively. On the other hand, minimal increases in fish catch from freshwater were recorded in Regions IV-B (4.86 percent), CARAGA ( 3.79 percent), IV-A ( 2.06 percent) and XII ( 1.44 percent). The positive output was attributed to the high water level in lakes, rivers and swamps prompting fishermen to build fish shelters and entrapments and thus enabled them to increase fish catch. The overflowing of water in fishponds and fishcages during typhoons had considerably increased the volume of catch of inland fishermen and also increased the number of days spent in fishing. Meanwhile, high demand for tilapia for local consumption was observed in some parts of the country. The appearance of tawilis in Taal Lake and the demand for suso (shells) particularly those gathered at the Laguna Lake to be used as feed supplement for ducks as well as the demand by some aquafarms were also observed this quarter.

**TABLE 3. MUNICIPAL FISHERIES: Volume of production by region, by sub-sector, Philippines, July - September 2001 - 2003**

(METRIC TONS)

REGION	MUNICIPAL			% CHANGE 03/02	MARINE			% CHANGE 03/02	INLAND			% CHANGE 03/02
	2001	2002	2003		2001	2002	2003		2001	2002	2003	
<b>PHILIPPINES</b>	<b>237,383</b>	<b>234,051</b>	<b>244,348</b>	<b>4.40</b>	<b>207,822</b>	<b>197,006</b>	<b>206,471</b>	<b>4.80</b>	<b>29,561</b>	<b>37,045</b>	<b>37,877</b>	<b>2.25</b>
CAR	255	214	202	(5.61)					255	214	202	(5.61)
I	4,378	5,202	6,035	16.01	4,168	4,801	5,582	16.27	210	401	453	12.97
II	3,627	4,667	4,732	1.39	2,257	3,213	3,306	2.89	1,370	1,454	1,426	(1.93)
III	4,608	3,429	3,945	15.05	3,631	2,221	2,500	12.56	977	1,208	1,445	19.62
NCR - M.M.	1,550	658	477	(27.51)	1,550	658	477	(27.51)				
IV - A	26,742	32,971	33,030	0.18	11,304	10,298	9,889	(3.97)	15,438	22,673	23,141	2.06
IV - B	24,848	27,862	31,719	13.84	24,701	27,677	31,525	13.90	147	185	194	4.86
V	24,424	22,921	24,570	7.19	24,143	22,562	24,113	6.87	281	359	457	27.30
VI	32,543	28,605	28,611	0.02	32,039	28,167	28,220	0.19	504	438	391	(10.73)
VII	10,092	12,877	12,672	(1.59)	10,070	12,852	12,647	(1.60)	22	25	25	-
VIII	9,868	9,307	11,159	19.90	9,711	9,082	10,575	16.44	157	225	584	159.56
IX	32,922	30,885	30,919	0.11	32,827	30,783	30,800	0.06	95	102	119	16.67
X	6,780	7,150	7,253	1.44	6,554	6,739	6,869	1.93	226	411	384	(6.57)
XI	7,416	7,223	7,098	(1.73)	7,363	7,163	7,029	(1.87)	53	60	69	15.00
XII	10,220	9,292	8,972	(3.44)	5,937	5,685	5,313	(6.54)	4,283	3,607	3,659	1.44
ARMM	19,713	19,023	19,689	3.50	15,133	14,157	15,209	7.43	4,580	4,866	4,480	(7.93)
CARAGA	17,397	11,765	13,265	12.75	16,434	10,948	12,417	13.42	963	817	848	3.79

## **Aquaculture**

Aquaculture output during the third quarter of 2003 was 3,323.40 metric tons or 1.20 percent higher than the same quarter of 2002 (Table 4). The increment was realized from all types of aquafarm in freshwater environment, brackishwater fish cage and mussel farming.

A production gain of 10.84 percent from freshwater fishpond was attained in Central Luzon due to the use of Genetically Enhanced Tilapia (GET EXCEL) strain fingerlings, the water temperature which was conducive to raising this specie and better management. Other factors which contributed to the production growth were the dispersal of fingerlings, technology transfer and enough supply of rainwater which encouraged farmers to expand their area.

Production in freshwater fish cages grew by 18.58 percent owing to the installation of additional cages in Batangas increased stocking rate and the use of Genetically Improved Farm Tilapia (GIFT) strain fingerlings. Similarly, the improved harvests from Lakes Bato and Buhi in Camarines Sur through polyculture of silver carp with tilapia enhanced production in freshwater fish cages. Harvest from freshwater fish pens increased by 6.81 percent as a result of the installation of more pens and intensified feeding in Rizal as well as the shifting from cages in Sultan Kudarat.

The volume of harvest in brackishwater fish cages operators went up by 98.91 percent due to great demand and high price offered in the market which encouraged the operators to install more cages. Meanwhile, the rise in mussel harvest by about 24 percent was due to the favorable weather that prevailed during the quarter.



(METRIC TONS)

REGION	AQUACULTURE		% CHANGE 03/02	BRACKISHWATER FISHPOND		% CHANGE 03/02	BRACKISHWATER FISH CAGE		% CHANGE 03/02	BRACKISHWATER FISH PEN		% CHANGE 03/02	FRESHWATER FISH CAGE		% CHANGE 03/02	FRESHWATER FISH PEN		% CHANGE 03/02			
	2001	2002		2003	2001		2002	2003		2001	2002		2003	2001		2002	2003		2001	2002	2003
<b>PHILIPPINES</b>	<b>239,583.3</b>	<b>277,922.8</b>	<b>281,246.2</b>	<b>1.20</b>	<b>66,014.0</b>	<b>64,248.0</b>	<b>64,184.9</b>	<b>(0.10)</b>	<b>904.0</b>	<b>828.0</b>	<b>1,647.0</b>	<b>98.91</b>	<b>(2.50)</b>	<b>10,681.0</b>	<b>11,426.0</b>	<b>13,549.2</b>	<b>18.58</b>	<b>3,029.0</b>	<b>4,407.0</b>	<b>4,707.3</b>	<b>6.81</b>
CAR	518.3	432.2	358.8	(16.98)	2,718.0	3,457.0	3,322.8	(3.88)	700.0	630.0	560.0	(11.11)	(3.67)	383.0	333.0	253.1	(23.99)	1.0	2.0	2.5	25.00
I	6,309.0	9,400.5	9,035.0	(3.89)	109.0	95.0	97.0	2.11	124.0	108.0	106.0	(1.85)	(3.67)	477.0	490.0	383.6	(21.71)	3.0	21.0	19.4	(7.62)
II	1,547.0	1,419.0	1,296.7	(8.62)	23,332.0	18,365.0	16,851.0	(8.24)	45.0	77.0	74.4	(3.38)	(6.47)	23.0	23.0	146.0	166.0	13.70	1,598.0	461.3	(100.00)
III	30,447.0	23,739.2	23,251.9	(2.05)	68.0	1,821.0	701.7	(61.47)	17,135.0	21,028.9	23,433.0	11.43	6.31	7,817.0	7,561.0	9,938.0	31.44	3,008.0	2,788.0	2,983.0	(71.13)
NCR - M.M.	17,951.0	20,487.0	20,744.2	1.26	767.0	894.0	1,031.8	15.41	2.0	2.0	2.0	100.00		1,160.0	1,127.0	1,435.5	27.37				
IV-A	5,551.0	5,507.1	6,785.7	23.22	527.0	519.0	618.2	19.11	18,009.0	19,533.0	21,280.0	8.94	(6.08)	1,793.0	1,815.0	1,704.7	(6.08)				
IV-B	27,467.0	32,314.4	39,229.2	(21.03)	1,793.0	1,815.0	1,704.7	(6.08)	887.0	1,185.0	1,174.6	(0.88)	3.86	4,476.0	4,986.0	5,178.3	3.86				
V	17,951.0	20,487.0	20,744.2	1.26	5,483.0	5,086.0	4,974.4	(2.19)	2,046.0	2,375.0	2,409.7	1.46	(21.42)	2,727.0	2,271.0	1,784.6	(24.39)				
VI	3,861.0	4,326.8	4,748.2	9.74	362.0	378.0	285.8	4.84	80.0	88.0	979.0	1,012.50		1,021.0	1,159.0	1,215.1					
VII	18,669.0	24,607.5	17,955.8	(27.03)	1,021.0	1,159.0	1,215.1														
VIII	4,161.0	5,671.0	6,211.1	9.52																	
IX	22,491.0	24,528.0	20,890.6	(14.83)																	
X	7,280.0	6,910.0	9,146.6	32.37																	
XI	2,613.0	3,167.3	3,137.9	(0.93)																	
XII	3,861.0	4,326.8	4,748.2	9.74																	
ARMM	68,212.0	81,072.2	85,013.2	4.86																	
CARAGA	5,305.0	11,490.7	9,306.6	(19.01)																	

REGION	FRESHWATER FISHPOND		% CHANGE 03/02	MARINE FISH CAGE		% CHANGE 03/02	MARINE FISH PEN		% CHANGE 03/02	OYSTER		% CHANGE 03/02	MUSSEL		% CHANGE 03/02	SEAWEEDS		% CHANGE 03/02			
	2001	2002		2003	2001		2002	2003		2001	2002		2003	2001		2002	2003		2001	2002	2003
<b>PHILIPPINES</b>	<b>8,911.3</b>	<b>7,172.9</b>	<b>7,950.3</b>	<b>10.84</b>	<b>1,647.0</b>	<b>3,114.8</b>	<b>3,093.8</b>	<b>(0.67)</b>	<b>998.0</b>	<b>2,522.2</b>	<b>2,452.7</b>	<b>(2.76)</b>	<b>(2.27)</b>	<b>2,143.0</b>	<b>2,307.0</b>	<b>2,863.9</b>	<b>24.14</b>	<b>143,121.0</b>	<b>179,837.0</b>	<b>178,785.3</b>	<b>(0.58)</b>
CAR	135.3	99.2	105.7	6.55																	
I	112.0	140.0	183.3	30.93																	
II	747.0	642.0	580.1	(9.64)																	
III	6,951.0	5,288.2	5,846.5	10.56																	
NCR - M.M.	175.0	100.0	180.0	80.00																	
IV-A	127.0	133.0	135.0	1.50																	
IV-B	28.0	48.0	69.8	45.42																	
V	61.0	46.0	54.7	18.91																	
VI	14.0	8.5	10.0	17.65																	
VII	18.0	25.0	28.0	12.00																	
VIII	20.0	23.0	24.0	4.35																	
IX	150.0	129.0	175.0	35.66																	
X	111.0	133.0	149.4	12.33																	
XI	220.0	297.0	335.9	13.10																	
XII	11.0	21.0	32.1	52.86																	
ARMM	31.0	40.0	40.8	2.00																	
CARAGA	31.0	40.0	40.8	2.00																	

NOTE: For aquaculture, figures may not add up to the totals due to the rounding off.

**Milkfish.** Milkfish production this quarter increased by 1.66 percent against same quarter of last year (Table 5). The increment was realized from brackishwater fishpond, fish cage and freshwater fish pen.

The production increase by 0.11 percent from brackishwater fishpond was attributed to more supply of fry/fingerlings and increased area harvested due to rehabilitation of ponds that were damaged last year. Moreover, some fishpond operators harvested their stocks earlier in anticipation of the rainy season when overflowing of ponds occur. On the contrary, Bulacan, a major milkfish producing province, experienced a production shortfall of 17.44 percent because some operators decided to delay their harvest during the 4<sup>th</sup> quarter. The farmers observed stunted growth of milkfish due to acidic water caused by the settling of feeds at the bottom of the ponds which when mixed with rain water, become acidic.

Production of milkfish in brackishwater fish cage and freshwater fish pen rose by 105.84 percent and 20.06 percent, respectively. Agusan del Norte contributed to the increase in milkfish production from fish cages. It was observed that operators had installed more fish cages in order to take advantage of the increasing demand and high prices. Harvest from freshwater fish cages in Rizal likewise rose by about 20 percent due to expansion in harvest area. Moreover, farmers in this province utilized commercial feeds which brought about higher yield.

Milkfish production in brackishwater fish pens declined by 0.90 percent, freshwater fish cage by 21.71 percent and marine fish pen and fish cage by 2.89 percent and 1.20 percent, respectively. Some fish pen and cage operators from the topmost producing province of Pangasinan had lessen their stocked area in anticipation of the rainy season when overflowing of water ponds occur. In Bolinao, Pangasinan, some stocked milkfish were affected by white spot itch, a disease characterized by the melting of gills. It is caused by cellited parasite *ichthyophthrius* which could have existed due to the presence of too much ammonia coupled with very hot temperature in fish cages and pens.

Milkfish production in freshwater fish cages from Lutayan Lake in Sultan Kudarat dropped by 24 percent due to the shifting of culture from fish cage to fish pen, as the latter is less costly to maintain.

**TABLE 5. AQUACULTURE: Milkfish production of top producing provinces  
by culture environment/type of aquafarm, Philippines, July - September 2001 - 2003**

**(METRIC TONS)**

<b>CULTURE ENVIRONMENT/ TYPE OF AQUAFARM/PROVINCE</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>% CHANGE 03/02</b>
<b>PHILIPPINES</b>	<b>57,543.0</b>	<b>62,221.2</b>	<b>63,254.3</b>	<b>1.66</b>
<b>Brackishwater Fishpond</b>	<b>52,738.0</b>	<b>51,882.0</b>	<b>51,938.0</b>	<b>0.11</b>
Bulacan	12,000.0	10,908.0	9,006.0	(17.44)
Iloilo	5,590.0	6,629.0	6,931.0	4.56
Capiz	5,242.0	5,656.0	6,295.0	11.30
Negros Occidental	4,002.0	3,653.0	4,062.0	11.20
Aklan	2,500.0	2,800.0	3,133.0	11.89
Pampanga	3,815.0	2,627.0	2,863.0	8.98
Pangasinan	2,404.0	2,974.0	2,815.0	(5.35)
Quezon	1,604.0	1,921.0	2,051.0	6.77
Lanao del Norte	1,698.0	1,562.0	1,815.0	16.20
Other Provinces	13,883.0	13,152.0	12,967.0	(1.41)
<b>Brackishwater Fish pen</b>	<b>629.0</b>	<b>557.0</b>	<b>552.0</b>	<b>(0.90)</b>
Pangasinan	626.0	553.0	550.0	(0.54)
Other Provinces	3.0	4.0	2.0	(50.00)
<b>Brackishwater Fish cage</b>	<b>840.0</b>	<b>771.0</b>	<b>1,587.0</b>	<b>105.84</b>
Agusan del Norte	80.0	88.0	979.0	1012.50
Pangasinan	700.0	630.0	560.0	(11.11)
Other Provinces	60.0	53.0	48.0	(9.43)
<b>Freshwater Fish pen</b>	<b>580.0</b>	<b>2,449.0</b>	<b>2,940.3</b>	<b>20.06</b>
Rizal	580.0	851.0	1,755.0	106.23
Metro Manila		1,598.0	461.3	(71.13)
Sultan Kudarat			724.0	
<b>Freshwater Fish cage</b>	<b>255.0</b>	<b>995.0</b>	<b>779.0</b>	<b>(21.71)</b>
Sultan Kudarat	255.0	955.0	725.0	(24.08)
Other Provinces		40.0	54.0	35.00
<b>Marine Fish pen</b>	<b>980.0</b>	<b>2,511.0</b>	<b>2,438.5</b>	<b>(2.89)</b>
Pangasinan	723.0	1,869.0	1,776.0	(4.98)
Other Provinces	257.0	642.0	662.5	3.19
<b>Marine Fish cage</b>	<b>1,521.0</b>	<b>3,056.2</b>	<b>3,019.5</b>	<b>(1.20)</b>
Pangasinan	1,249.0	2,544.0	2,456.0	(3.46)
Other Provinces	272.0	512.2	563.5	10.02

**Tilapia.** Overall tilapia production during the 3<sup>rd</sup> quarter of 2003 registered an increase of 20.22 percent from 19,021 metric tons in 2002 to 22,867.6 metric tons in 2003 (Table 6). Production in freshwater fish cage contributed about 55 percent to the total output and posting an increase of 22.25 percent. The increment was attributed to the increased stocking rate using Genetically Improved Farm Tilapia (GIFT) strain fingerlings and the installation of cages in Batangas. Similarly, harvests from Lakes Bato and Buhi in Camarines Sur improved by about 25 percent through polyculture of silver carp with improved tilapia fingerlings in fish cages.

Tilapia production in freshwater fishpond grew by 10.42 percent, likewise attained through the use of Genetically Enhanced Tilapia (GET EXCEL) strain fingerlings particularly in Pampanga, coupled with better management and good water temperature. Harvest in Tarlac went up due to abundant rainwater in the ponds. The availability of GIFT in Ilocos Sur had helped the farmers in enhancing their produce. In other provinces, massive dispersal of fingerlings and enough supply of rainwater in Bukidnon had encouraged fishpond operators to increase their area. In North Cotabato, the observed growth in production was attained because more farmers raised tilapia. Meanwhile, the continuous support through technology trainings and more fingerlings dispersal in the province were spearheaded by the DA, BFAR and University of Southern Mindanao (USM) in Kabacan.

Production of tilapia in freshwater fish pen showed the highest increase of 220.09 percent. Fish pen operators in Rizal opted to install more pens and intensified their feeding practice thus resulting in higher yield. Meanwhile, fish pen operators in Sultan Kudarat shifted from fish cage to culturing of tilapia in pens since the latter is cheaper to operate.

On the contrary, production in brackishwater fishpond declined by 4.34 percent as a consequence of shifting to mudcrab culture. This was particularly true in Bulacan where there is stiff competition with Pampanga-bred tilapia. In other areas like La Union and Bataan harvested their stocks prematurely due to occurrence of typhoon. Tilapia stocked in some fishponds in Ilocos Norte were washed out by flood at the height of typhoon Egay. Moreover, decrease in harvest area was observed in Bohol because some farmers deferred their harvest to the 4<sup>th</sup> quarter.

**TABLE 6. AQUACULTURE: Tilapia production of top producing provinces,  
by culture environment/type of aquafarm, Philippines,  
July - September 2001 - 2003**

(METRIC TONS)

CULTURE ENVIRONMENT/ TYPE OF AQUAFARM/PROVINCE	2001	2002	2003	% CHANGE 03/02
<b>PHILIPPINES</b>	<b>21,749.0</b>	<b>19,021.0</b>	<b>22,867.6</b>	<b>20.22</b>
<b>Brackishwater Fishpond*</b>	<b>2,130.0</b>	<b>1,681.0</b>	<b>1,608.0</b>	<b>(4.34)</b>
Pampanga	415.0	304.0	326.0	7.24
Bulacan	190.0	380.0	296.0	(22.11)
Other Provinces	1,525.0	997.0	986.0	(1.10)
<b>Freshwater Fishpond</b>	<b>8,313.0</b>	<b>6,642.0</b>	<b>7,334.4</b>	<b>10.42</b>
Pampanga	2,985.0	2,147.0	2,486.2	15.80
Bulacan	2,300.0	1,380.0	1,485.0	7.61
Nueva Ecija	840.0	995.0	978.0	(1.71)
Tarlac	220.0	253.0	307.0	21.34
Isabela	325.0	305.0	225.0	(26.23)
Cagayan	188.0	170.0	179.0	5.29
Bataan	93.0	148.0	156.0	5.41
Mindoro Oriental	125.0	131.0	132.4	1.07
Ilocos Sur	69.0	90.0	120.0	33.33
Other Provinces	1,168.0	1,023.0	1,265.8	23.73
<b>Freshwater Fish cage</b>	<b>10,298.0</b>	<b>10,270.0</b>	<b>12,555.2</b>	<b>22.25</b>
Batangas	6,071.0	5,571.0	7,744.0	39.01
Camarines Sur	1,059.0	1,017.0	1,271.0	24.98
Laguna	1,192.0	1,189.0	1,176.0	(1.09)
Quezon	365.0	511.0	694.0	35.81
South Cotabato	481.0	516.0	443.2	(14.11)
Isabela	464.0	482.0	375.0	(22.20)
Ifugao	328.0	274.0	192.0	(29.93)
Albay	100.0	109.0	161.0	47.71
Metro Manila	8.0	132.0	136.0	3.03
Other Provinces	230.0	469.0	363.0	(22.60)
<b>Freshwater Fish pen</b>	<b>1,008.0</b>	<b>428.0</b>	<b>1,370.0</b>	<b>220.09</b>
Rizal	873.0	291.0	713.0	145.02
Sultan Kudarat			520.0	
Laguna	114.0	116.0	118.0	1.72
Other Provinces	21.0	21.0	19.0	(9.52)

\* Includes tilapia production from brackishwater fish pen and cage.

Production of Tiger prawn, Mud crab, Carp and Catfish from July – September 2003 by province are in Table 7.

**Tiger prawn.** The third quarter production of tiger prawn declined from 9,171 metric tons in 2002 to 9,046 metric tons or a negative 1.3 percent in 2003. The increments achieved in Pampanga, Zamboanga Sibugay and Zamboanga del Sur did not however, offset the decrease of harvest in Lanao del Norte, Basilan, Catanduanes and Sarangani. Operators in these provinces were observed to have decreased their area utilized for prawn culture due to high cost of production and scarcity of post larvae. Moreover, the poor quality of post larvae and high mortality rate caused by a luminous bacteria also contributed to the production shortfall. Furthermore, the drop in production were attributed to the shifting from tiger prawn culture to milkfish and mudcrab culture particularly in Capiz, Cebu and Surigao del Norte. Meanwhile, the occurrence of flash floods in Misamis Oriental and the damage brought about by typhoon “Harurot” in La Union also caused the production decrease.

**Mud crab.** Mud crab production for this quarter rose by 8.74 percent or 87 metric tons higher than last year’s 995 metric tons of the same quarter, notably in the provinces of Pampanga, Capiz, Camarines Sur and Misamis Occidental. Similarly, the positive performance was attributed to the high stocking rate and the maximization of harvest area owing to great demand and good market price. The availability of quality crablets, intensive feeding, and shifting from tilapia to mud crab culture in other provinces also contributed to the production increment.

**Carp.** Total carp production significantly decreased by 64.40 percent during the third quarter of 2003. This was due to a big decline by 63.81 percent in fishpen and cages caused by the shifting of more fish pen operators to bangus and tilapia culture and the absence of “liya” or green algae brought about by high water elevation in fish cages. Freshwater fishponds increased though by 11.25 percent due to proper maintenance and use of commercial feeds and good water condition.

**Catfish.** Catfish production this quarter increased by 18.83 percent compared to same quarter of last year. The increment of 19.37 percent in Bulacan was due to the abundance of water in fishponds caused by monsoon rains. Farmers in South Cotabato and Maguindanao were encouraged to open new areas to take advantage of the demand from business establishments (ihaw-ihaw) and because of good market price.

**TABLE 7. AQUACULTURE: Tiger prawn, mud crab, carp and catfish production**

**Philippines, July - September 2001 - 2003**

**(METRIC TONS)**

<b>SPECIES/CULTURE ENVIRONMENT/ TYPE OF AQUAFARM/PROVINCE</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>% CHANGE 03/02</b>
<b>TIGER PRAWN</b>				
<b>Brackishwater Fispond*</b>	<b>9,624.0</b>	<b>9,171.0</b>	<b>9,046.0</b>	<b>(1.36)</b>
Pampanga	2,347.0	1,905.0	2,091.0	9.76
Zamboanga Sibugay		1,085.0	1,103.0	1.66
Lanao del Norte	3,400.0	3,162.0	2,808.0	(11.20)
Zamboanga del Sur	1,502.0	685.0	713.0	4.09
Other Provinces	2,375.0	2,334.0	2,331.0	(0.13)
<b>MUD CRAB</b>	<b>1,020.0</b>	<b>995.0</b>	<b>1,082.0</b>	<b>8.74</b>
<b>Brackishwater Fispond</b>	<b>1,018.0</b>	<b>991.0</b>	<b>1,078.0</b>	<b>8.78</b>
Pampanga	808.0	718.0	776.0	8.08
Capiz	36.0	37.0	38.0	2.70
Camarines sur	29.0	38.0	42.0	10.53
Misamis Occidental	18.0	20.0	24.0	20.00
Other Provinces	127.0	178.0	198.0	11.24
<b>Marine Fish pen/Cage</b>	<b>2.0</b>	<b>4.0</b>	<b>4.0</b>	<b>0.00</b>
Zamboanga del Sur	2.0	4.0	4.0	0.00
Other Provinces				
<b>CARP</b>	<b>1,609.0</b>	<b>1,731.0</b>	<b>656.5</b>	<b>(62.07)</b>
<b>Freshwater Fishpond</b>	<b>40.0</b>	<b>40.0</b>	<b>44.5</b>	<b>11.25</b>
Lanao del Norte	29.0	32.0	34.0	6.25
Other Provinces	11.0	8.0	10.5	31.25
<b>Freshwater Fish pen/Cage</b>	<b>1,569.0</b>	<b>1,691.0</b>	<b>612.0</b>	<b>(63.81)</b>
Rizal	1,554.0	1,677.0	511.0	(69.53)
Laguna			69.0	
Other Provinces	15.0	14.0	32.0	128.57
<b>CATFISH</b>	<b>494.0</b>	<b>426.0</b>	<b>506.2</b>	<b>18.83</b>
<b>Freshwater Fishpond</b>	<b>494.0</b>	<b>426.0</b>	<b>506.2</b>	<b>18.83</b>
Bulacan	371.0	222.0	265.0	19.37
South Cotabato		50.0	61.4	22.80
Davao City	14.0	28.0	23.0	(17.86)
Nueva Ecija	17.0	18.0	21.0	16.67
Maguindanao		9.0	20.0	122.22
Other Provinces	92.0	99.0	115.8	16.97

\*Include data from brackishwater fishpen

Seaweeds, Oyster and Mussel production by province are shown in Table 8.

**Seaweeds.** The third quarter production of seaweeds declined from last year's level of 179,837.2 metric tons to 178,785.3 metric tons this year, as reflected in Zamboanga City, Bohol, Surigao del Sur and Quezon. In Zamboanga City, some farmers had stopped their operation due to low market demand and financial problems. Farmers in Bohol too, had temporarily refrained from seaweeds culture as traders have ceased from buying their produce. Similarly, farmers in Surigao del Sur inhibited from seaweeds culture due to the ice-ice disease that prevailed in the area. Moreover, seaweeds farms in Quezon were damaged by typhoon Harurot.

On the contrary, Antique, Tawi-Tawi and Zamboanga del Sur showed an upward trend in production posting 45.11 percent, 10.36 percent and 8.53 percent, respectively. This was attributed to expansion in harvest area due to availability of good planting materials, financial support from the LGU, absence of weather disturbances and less incidence of infestation.

**Oyster.** Production of oyster this quarter slightly decreased by 2.27 percent compared to same quarter of last year. A negative change of 51.91 percent was reported in Carles, Iloilo where siltation in oyster farms affected the growth of the spats. Similarly, some operators in other provinces temporarily stopped their operation due to insufficient capital while others experienced the presence of barnacles and diseases. In contrast, the gain in oyster harvests in Cagayan, Bulacan, Capiz and La Union, was a consequence of the good weather condition during the spawning period. Moreover, less infestation of algae, the constant deactivation of water composition which increased water level and brought about good quality oyster produce and better prices were also among the contributing factors.

**Mussel.** Mussel production grew by 24.14 percent this quarter as against same quarter of last year. Mussel farmers in Western Samar, Aklan, Sorsogon and Capiz were encouraged to produce more due to the prevailing good weather condition during the quarter which favored the growth of mussel spats.



**TABLE 8. AQUACULTURE: Mariculture production by species,  
by province, Philippines, July - September 2001 - 2003**

(METRIC TONS)

SPECIES/PROVINCE	2001	2002	2003	% CHANGE 03/02
<b>SEAWEEDS</b>	<b>143,121.0</b>	<b>179,837.0</b>	<b>178,785.3</b>	<b>(0.58)</b>
Sulu	45,761.0	44,297.0	45,286.0	2.23
Tawi-Tawi	20,289.0	33,883.0	37,393.0	10.36
Palawan	15,740.0	18,424.0	18,446.0	0.12
Antique	7,744.0	10,692.0	15,515.0	45.11
Bohol	15,925.0	21,844.0	15,450.0	(29.27)
Zamboanga del Sur	7,000.0	7,316.0	7,940.0	8.53
Quezon	4,200.0	8,400.0	7,740.0	(7.86)
Surigao del Sur	2,000.0	8,000.0	6,380.0	(20.25)
Zamboanga City	10,980.0	8,806.0	4,326.0	(50.87)
Other Provinces	13,482.0	18,175.0	20,309.3	11.74
<b>OYSTER</b>	<b>1,469.0</b>	<b>1,461.0</b>	<b>1,427.8</b>	<b>(2.27)</b>
Capiz	794.0	818.0	867.1	6.00
La Union	110.0	137.0	140.4	2.48
Cagayan	90.0	84.0	97.0	15.48
Bulacan	150.0	62.0	68.0	9.68
Iloilo	119.0	131.0	63.0	(51.91)
Other Provinces	206.0	229.0	192.3	(16.03)
<b>MUSSEL</b>	<b>2,143.0</b>	<b>2,307.0</b>	<b>2,863.9</b>	<b>24.14</b>
Western Samar	1,064.0	1,160.0	1,334.0	15.00
Sorsogon	372.0	381.0	400.0	4.99
Capiz	360.0	361.0	376.5	4.29
Bataan			280.0	
Aklan	178.0	201.0	217.0	7.96
Other Provinces	169.0	204.0	256.4	25.69

## Wholesale Prices

The average wholesale price per kilo of six (6) selected fish species decreased ranging from 0.09 percent to 7.63 percent for the period January - September 2003.

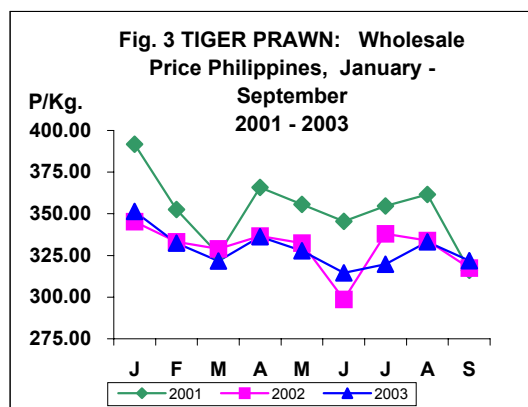
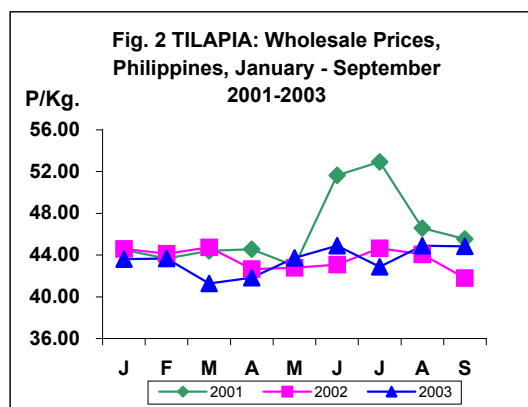
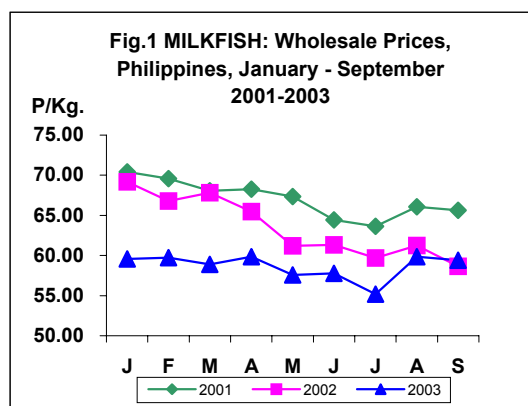
Monthly wholesale price of milkfish remained at a lower level this year averaging P58.65 per kilo as compared to 2002's level of P63.49 per kilo. An increment of 1.28 percent was observed in September 2003.

Price of tilapia in July 2003 decreased by 3.99 percent, from P44.64 to P42.86 per kilo in the same month of 2002. August and September prices were 1.86 percent and 7.25 percent above that of same months of the previous year. Overall, tilapia's average price per kilo in 2003 declined by 0.23 percent.

Similarly, tiger prawn's price in July dipped by 5.41 percent, from P338.01 in 2002 to P319.72 per kilo in 2003. A price decrement of as low as 0.23 percent was noted in August while a minimal increase of 1.40 percent was observed in September. The average price per kilo of tiger prawn decreased by 0.20 percent from January-September.

**TABLE 9. Wholesale prices of milkfish, tilapia and tiger prawn, Philippines, January - September 2001 - 2003**

SPECIES/MONTH	WHOLESALE PRICE (P/KG)			% CHANGE (03/02)
	2001	2002	2003	
<b>MILKFISH</b>				
January	70.40	69.19	59.56	(13.92)
February	69.57	66.78	59.71	(10.59)
March	68.08	67.81	58.89	(13.15)
April	68.27	65.47	59.86	(8.57)
May	67.36	61.21	57.59	(5.91)
June	64.42	61.34	57.76	(5.84)
July	63.63	59.68	55.19	(7.52)
August	66.06	61.25	59.85	(2.29)
September	65.63	58.67	59.42	1.28
Average Price	67.05	63.49	58.65	(7.63)
<b>TILAPIA</b>				
January	44.50	44.59	43.60	(2.22)
February	43.67	44.12	43.68	(1.00)
March	44.42	44.75	41.28	(7.75)
April	44.57	42.67	41.82	(1.99)
May	42.96	42.77	43.72	2.22
June	51.63	43.08	44.91	4.25
July	52.94	44.64	42.86	(3.99)
August	46.58	44.08	44.90	1.86
September	45.54	41.80	44.83	7.25
Average Price	46.31	43.61	43.51	(0.23)
<b>TIGER PRAWN</b>				
January	391.71	345.19	351.41	1.80
February	352.62	333.22	332.41	(0.24)
March	325.67	329.04	321.65	(2.25)
April	365.85	336.67	336.21	(0.14)
May	355.59	332.50	327.89	(1.39)
June	345.40	298.66	314.55	5.32
July	354.61	338.01	319.72	(5.41)
August	361.53	334.04	333.26	(0.23)
September	316.18	317.34	321.77	1.40
Average Price	352.13	329.41	328.76	(0.20)



The wholesale price of roundscad during the third quarter of 2003 registered decrease ranging from 2.22 percent to 6.54 percent. The average price of P42.77 per kilo this year was only 0.09 percent lower than 2002's P42.81 per kilo.

Price of frigate tuna posted a 1.93% increment in August 2003 while a negative price change of 6.75 percent and 7.05 percent were seen in July and September, respectively. Frigate tuna's average price decreased by 3.32 percent, from P46.86 in 2002 to P45.30 per kilo in 2003.

Indian mackerel exhibited a remarkable price drop of 10.65 percent in July 2003, from P65.23 per kilo in 2002 to this year's P58.28. August and September wholesale prices also showed negative changes of 4.22 percent and 2.65 percent, respectively. The computed average price was P60.19 this year compared to P61.65 in 2002..

**TABLE 10. Wholesale prices of roundscad, frigate tuna and indian mackerel, Philippines, January - September 2001 - 2003**

SPECIES/MONTH	WHOLESALE PRICE (P/KG)			% CHANGE (03/02)
	2001	2002	2003	
<b>ROUNDSCAD</b>				
January	46.25	47.82	47.22	(1.25)
February	44.79	43.00	45.52	5.86
March	43.32	40.96	38.83	(5.20)
April	43.47	38.71	38.24	(1.21)
May	42.18	36.82	42.94	16.62
June	42.68	40.69	41.66	2.38
July	43.66	45.70	42.96	(6.00)
August	46.14	46.18	43.16	(6.54)
September	43.18	45.42	44.41	(2.22)
Average Price	43.96	42.81	42.77	(0.09)
<b>FRIGATE TUNA</b>				
January	47.83	53.52	52.04	(2.77)
February	47.93	42.68	45.00	5.44
March	46.73	46.83	39.12	(16.46)
April	50.17	43.96	37.96	(13.65)
May	47.65	43.23	44.54	3.03
June	43.97	44.02	47.52	7.95
July	47.98	51.14	47.69	(6.75)
August	51.04	47.70	48.62	1.93
September	47.24	48.66	45.23	(7.05)
Average Price	47.84	46.86	45.30	(3.32)
<b>INDIAN MACKEREL</b>				
January	61.98	65.73	66.23	0.76
February	58.68	64.16	64.28	0.19
March	56.06	62.27	59.69	(4.14)
April	57.86	59.51	58.53	(1.65)
May	57.66	57.47	59.60	3.71
June	58.22	59.66	58.49	(1.96)
July	59.96	65.23	58.28	(10.65)
August	64.78	60.86	58.29	(4.22)
September	62.19	59.93	58.34	(2.65)
Average Price	59.71	61.65	60.19	(2.36)

