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FISHERIES SITUATIONER

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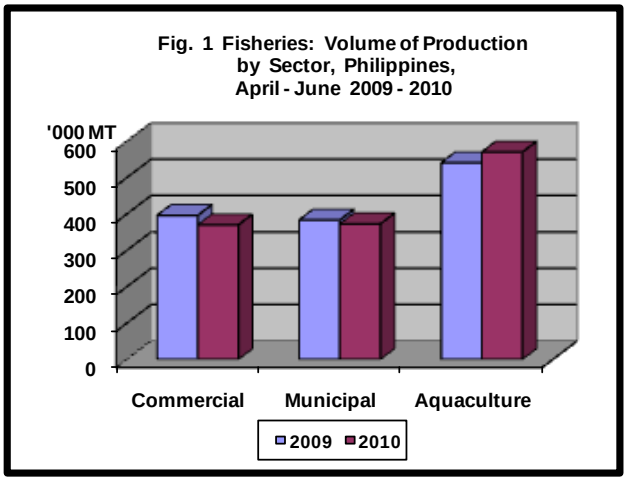
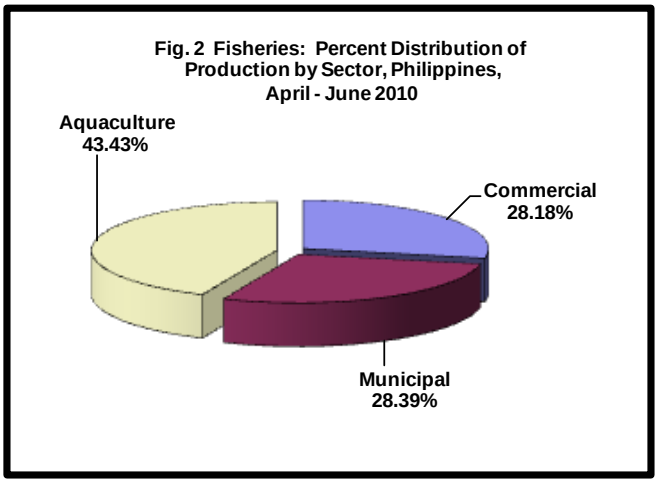
DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL STATISTICS
PHILIPPINES

HIGHLIGHTS





In the second quarter of 2010, the volume of fisheries production decreased by 0.55 percent from last year's same quarter output. Production cuts of 6.60 percent for commercial fisheries and 2.77 percent for municipal fisheries were recorded during the reference period. On the other hand, aquaculture production grew by 5.47 percent (Table 1).

Commercial fishermen produced 370,071.11 metric tons of fish catch or 26,169.15 metric tons lower than last year's record. Eight (8) regions registered production shortfalls while the other eight (8) regions exhibited upward production trends. The decrease in production was largely attributed to lower volume of fish catch in Sarangani and South Cotabato owing to the limited fishing grounds for tuna caused by the restriction of fishing activities for purse seine in foreign waters such as Indonesia and Papua New Guinea. Some commercial fishing vessels in Gen. Santos City unloaded their catch in Papua New Guinea while those in Iloilo reduced their fishing trips due to high operational costs. South Cotabato shared 96.41 percent to the total commercial production of SOCCSKSARGEN while Iloilo contributed 29.97 percent to the total commercial production of Western Visayas.

Municipal fisheries production at 372,859.84 metric tons was down by 2.77 percent or 10,637.90 metric tons below last year's level. The volume of fish caught in marine waters dropped by 2.71 percent or 9,319.74 metric tons while that on fish caught in inland waters moved down by 3.37 percent or 1,318.16 metric tons. Eight (8) regions recorded production cuts while nine (9) regions surpassed their last year's production levels. Municipal fishermen attributed the decline in unloadings to the El Niño phenomenon. On the other hand, good weather conditions prompted fishermen to increase their trips and caught big volume of a variety of fish species. Municipal fisheries accounted for about 28.39 percent of the total fisheries production in the second quarter of 2010.

Aquaculture production was estimated at 570,350.20 metric tons. It surpassed its last year's second quarter production by 29,603.84 metric tons or 5.47 percent. Harvests from marine environment showed bigger increases than those from freshwater and brackishwater environments. Milkfish had production gains coming from the recovery of marine fish pens and fish cages in Pangasinan which were adversely affected by typhoon Emong last year. Seaweed production which accounted for 65 percent of the total aquaculture production, increased by 6.65 percent. It was supported by availability of adequate planting materials, climatic condition with moderate tidal movement coupled with proper propagation. Seaweed farmers produced 370,955.22 metric tons this quarter. Aquaculture accounted for about 43.43 percent of the total fisheries production in the second quarter of 2010.

COMMERCIAL FISHERIES

Commercial fisheries production was 370,071.11 metric tons in the second quarter of 2010. This was 6.60 percent or 26,169.15 metric tons lower than last year's record. The volume of unloadings went down in eight (8) regions namely: Ilocos Region, Central Luzon, Western Visayas, Central Visayas, Eastern Visayas, Zamboanga Peninsula, Northern Mindanao and SOCCSKSARGEN. This reduction was largely attributed to lower volume of fish catch in Sarangani and South Cotabato as fishing grounds for tuna became limited as a result of restriction on the use of purse seine in some foreign waters such as Indonesia and Papua New Guinea. The ban on the use of purse seine was imposed by the Western and Central Pacific Fisheries Commission (WCPFC) on its member countries to replenish stocks of the highly migratory tuna species. Likewise, less unloadings of frozen tuna for canneries by foreign fishing vessels was observed. The production shortfalls was also attributed to the stopping of operations of six (6) commercial fishing vessels in Pangasinan because of bankruptcy caused by the damage from typhoons Cosme, Emong and Pepeng. The decrease was also traced to closure of commercial landing centers in Bataan due to the conversion of economic zone to free port area for tourist attraction. Some commercial fishing boats in Batangas and Iloilo temporarily stopped operations because of high operating costs. Moreover, ten (10) boats in Bohol stopped fishing operations as their licenses were not renewed while three (3) three boats were undergoing repair and maintenance. The cuts in the volume of unloadings in Cebu, Eastern Samar, Misamis Occidental and Iloilo were also attributed to less appearance of in-season species like roundscad, Indian sardines, frigate tuna, fimbriated sardines, Indo-pacific mackerel, rainbow runner and leather jacket.

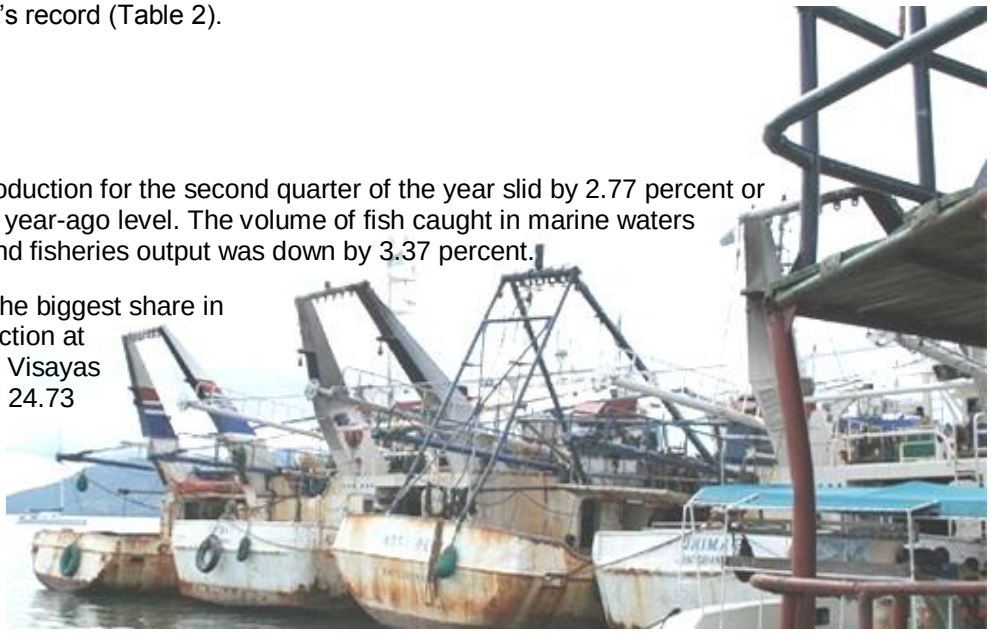
On the other hand, eight (8) regions managed to surpass their last year's records namely: National Capital Region, Cagayan Valley, CALABARZON, MIMAROPA, Bicol Region, Davao Region, Caraga and ARMM. This record was largely attributed to the increased number of fishing operations because of the prevailing good weather conditions in most of the regions during the quarter. Likewise, commercial fishermen increased their fishing trips as encouraged by better market price and abundant catch of in-season species such as roundscad mackerel, fimbriated sardines, big-eyed scad, frigate tuna, goatfish and Indian sardines. The uptrend in production was also traced to positive results of establishment of fish sanctuaries and more unloadings of newly operated fishing boats.

All types of landing centers recorded decreases in volume of unloadings. Private landing centers posted the biggest cut at 15.52 percent or 21,894.22 metric tons. Unloadings in landing centers managed by Philippines Fisheries Development Authority (PFDA) was 2.42 percent lower this quarter while unloadings in local government unit-managed landing centers (LGU) dropped by 2.88 percent. The traditional landing centers where commercial fishermen unloaded a total of 162,295.16 metric tons recorded a decrease of 1.19 percent compared to last year's record (Table 2).

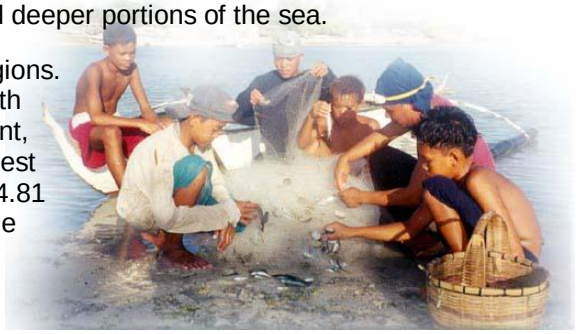
MUNICIPAL FISHERIES

Municipal fisheries production for the second quarter of the year slid by 2.77 percent or 10,637.90 metric tons from its year-ago level. The volume of fish caught in marine waters dropped by 2.71 percent. Inland fisheries output was down by 3.37 percent.

Luzon accounted for the biggest share in total municipal fisheries production at 45.43 percent. Mindanao and Visayas contributed 29.84 percent and 24.73 percent, respectively.



The months of April, May and June, considered the more favorable months for fishing due to absence of typhoons, unexpectedly brought down the production of municipal fisheries this year. Warm sea water caused by extreme heat resulted in fish movement to cooler and deeper portions of the sea.



Production slumps were recorded in six (6) out of 16 regions. Ilocos Region, Central Luzon and MIMAROPA topped the list with output cuts of 32.76 percent, 20.64 percent and 13.41 percent, respectively. By province, it was Palawan that recorded the biggest drop in volume of unloadings at 10,849.34 metric tons or 14.81 percent. Palawan, Leyte and Misamis Occidental attributed the decline in unloadings to El Niño phenomenon. Fishing activities in Zambales and Palawan were also interrupted during the campaign period of the May elections. Very small volume of fish catch was observed in the provinces of Ilocos Norte,Ilocos Sur, La Union and Cagayan because of occasional strong winds and big waves. Rising cost in fishing operations resulted in the reduction of fishing trips in Ilocos Sur, Iloilo and Negros Occidental. The decrease in volume of unloadings of fimbriated sardines adversely affected fish production in Sorsogon. In Bulacan, some fishermen discontinued using push nets in their operations and this led to smaller volume of fish catch. Lesser variety of fish species was observed in Iloilo, Zamboanga City, Surigao del Sur and Agusan del Norte. The presence of pirates who harassed fishermen in the fishing grounds of Zamboanga del Sur limited frequency of fishing operations. Smaller volume of unloadings of yellowfin tuna, skipjack and bigeye tuna was noted in South Cotabato owing to the existing ban on the use of "payaos". Insufficient catch from the sea led some fishermen in Negros Oriental to accept construction works while others started to venture in seaweed farming. There were reports of intrusion of commercial fishing vessels in municipal waters. High operating cost, scarcity of school of fish, competition among fishermen in search for richer fishing grounds were also among the major reasons for the dwindling volume of catch of municipal fishermen.

Meanwhile, the regions that surpassed same quarter last year's outputs included Davao Region, CALABARZON, Cagayan Valley, Bicol Region and ARMM. Among the provinces, Davao del Sur, Masbate, Camarines Sur, Tawi-Tawi, Quezon and Cagayan registered output increases this quarter. Good weather conditions during the quarter prompted fishermen to maximize fishing hours and caught bigger volume of variety of fish species.

Inland fisheries production was down by 3.37 percent or 1,318.16 metric tons. From 39,150.87 metric tons in the same quarter last year, production slid to 37,832.71 metric tons this year. Catch of freshwater species from lakes, rivers, dams swamps, creeks started to decline in the first quarter of the year and continued until the second quarter. Decline in catch from inland waters was noted in 12 out of 16 regions in the country. The big output losses were recorded in Western Visayas at 57.59 percent; Ilocos Region, at 32.24 percent; Central Visayas, at 29.89 percent; and MIMAROPA, at 29.06 percent.

The low volume of catch from inland waters was not unusual for sustenance fishermen since the onset of El Niño in February. Heavily silted fishing grounds limited the setting-up of fish shelters. Low water level reduced growth and reproduction of inland fish species. Scarcity of fish was particularly noted in Iloilo, North Cotabato, Cagayan, Tarlac, Pampanga, Camarines Sur, and Albay. In Iloilo, inland fisheries production dropped by 69.87 percent or about 1,363.87 metric tons, while fish caught in North Cotabato fell by 15.91 percent or equivalent to 507.29 metric tons. In Pampanga, fishermen were discouraged about the fishing operations that some have opted to do construction works. Relatedly, marginal fishermen in Nueva Ecija, Surigao del Norte and Surigao del Sur spent more time in crop farming.

Production increases were reported in CALABARZON, Eastern Visayas, Northern Mindanao and ARMM. There was abundant catch of freshwater catfish (hito), mudfish (dalag), tilapia, big-head carp and other species in several provinces of the above cited regions. Increased demand for snails which are being utilized as duck feeds and supplemental feeds for milkfish culture, contributed to the improved level of catch in Laguna and Rizal. Catch from Laguna Lake alone shared 45.03 percent to total inland fisheries production during the quarter (Table 3).

AQUACULTURE

Aquaculture production was estimated at 570.4 thousand metric tons during the second quarter of 2010. It grew by 5.47 percent from its last year's level. Harvests from marine environment showed bigger increases than those from freshwater and brackishwater environments.

Seaweeds, which accounted for 65 percent of the total aquaculture production, came up with 6.65 percent output increase. The top three (3) seaweed producing regions namely; MIMAROPA, ARMM and Zamboanga Peninsula, reported additional seaweed areas harvested during the period. In MIMAROPA, the area expansion was brought about by good quality of planting materials distributed by BFAR. The high demand for seaweeds prompted farm operators in Sulu and Tawi-Tawi to produce more. In Zamboanga Peninsula, there was less occurrence of ice-ice disease especially in Zamboanga Sibugay.

Ilocos Region was credited with big production increases in marine fish pens and fish cages and oyster farming at 172.43 percent, 21.67 percent and 32.41 percent, respectively. Milkfish farmers in Pangasinan recovered from the damages caused by typhoon Emong in 2009. In the same province, the prolonged hot weather condition benefited oyster production. It was observed that good and full grown oysters were harvested since there were no predators during the period.

In Central Luzon, aquaculture output was down by 4.81 or around three (3) thousand metric tons. There was a significant decrease in tilapia yield from freshwater fishponds. Hot water temperature affected the growth of tilapia in Pampanga and Tarlac. Fish kill also occurred in some areas (Table 4).

The following table shows the percentage change in production by aquafarm type and by environment from 2009 to 2010.

Type of Aquafarm/Environment	% Increase (Decrease)
Brackishwater fishpond	(4.00)
Brackishwater fish pen	(87.92)
Brackishwater fish cage	(42.91)
Freshwater fishpond	2.06
Freshwater fish pen	2.19
Freshwater fish cage	6.16
Marine fish pen	172.43
Marine fish cage	21.67
Oyster	32.41
Mussel	12.73
Seaweed	6.65
Rice fish	-
Small farm reservoir (SFRs)	(59.42)

SELECTED AQUACULTURE SPECIES

MILKFISH

The volume of milkfish harvests from freshwater fish cages grew by 29.28 percent, from marine fish cages, by 22.33 percent and from marine fish pens, by 173.57 percent. Operators from the major producing provinces increased their stocks due to availability of quality fry/fingerlings. It was also noted that additional cages were established in Silanguin Bay in San Antonio, Zambales.

Milkfish production from fishponds, fish pens and fish cages, all from brackishwater and freshwater fish pens environment indicated lower production this year. About 70 percent of the milkfish produced came from brackishwater fishponds where a 7.05 percent reduction in harvests was noted. Operators from Iloilo and Bulacan experienced more than 20 percent output decreases in their milkfish harvests. Fish farmers in Bulacan decreased their stocking rate due to high water salinity while others were shifted to tiger prawn culture. Aquafarm operators in Iloilo reported that intense heat during the quarter stunted growth of milkfish. It was also observed that other stocks were damage by predators. On the other hand, milkfish farm operators in Capiz produced 11.16 percent more in response to bigger demand from cannery in Timpas, Panitan.

Brackishwater fish pens and fish cages recorded output declines of 88.26 percent and 47.79 percent, respectively. The decrease of milkfish production in La Union was attributed to the low water level while smaller sizes were harvested in Agusan del Norte due to abrupt changes of water temperature. On the other hand, production of milkfish in La Union and Aklan from brackishwater pens registered output increases of 0.85 percent and 58.33 percent, respectively. These were attributed to the increased stocking by some pens operator in Dulao and Aringay in La Union. In Aklan, area harvested increased because of availability of stocking materials, sufficient feeding and high demand for boneless milkfish in the market.

TILAPIA

Tilapia production at 63,107.26 metric tons increased by 0.41 percent . Of the total tilapia production, 55 percent came from freshwater fishponds, 28 percent from freshwater fish cages, nine (9) percent from brackishwater fishponds and eight (8) percent from freshwater fish pens. Output gains were recorded in aquafarms from freshwater environment while cutbacks were noted in aquafarms from brackishwater environment (Table 6).

Production in freshwater fishponds grew by 1.83 percent this quarter. Pangasinan had a 300 percent output increase. The upsurge was attributed to the availability of natural food in the ponds, intensive feeding resulting on bigger sizes of harvests, and increased area harvested in Binmaley. Operators also harvested remaining stocks including the breeders because of the lowering of water level due to prolonged hot weather. On the other hand, a drop in harvests in its major tilapia producing provinces of Pampanga, Tarlac, Nueva Ecija and Isabela was reported. This was caused by hot weather during the quarter that stunted the growth of the species. Fish kill was reported in the municipalities of San Luis and Candaba, Pampanga. Moreover, forced harvesting of fish of smaller sizes or below the marketable size was observed in Isabela.

Harvests from freshwater fish cages increased by 3.96 percent this quarter. Provinces contributing to the increase were Batangas, Camarines Sur and South Cotabato where output gains of 11.58 percent, 8.14 percent and 18.44 percent, were noted respectively. In Batangas, it was the result of availability of good quality fingerlings stocked. The advisory of Philvocs for possible eruption of Taal Volcano prompted operators to harvest their stocks early. In Camarines Sur, the increase was due to good weather condition

which resulted in better growth of fingerlings. In South Cotobato, it was attributed to high survival rate and the extended culture period that enhanced the growth of tilapia. On the contrary, there was a downward trend in harvests from Laguna and Albay where cuts were estimated at 8.18 percent and 2.30 percent, respectively. In Laguna, the drop was caused by unrepaired fish cages while some were kept unutilized. In Albay, the intense heat led farmers to temporarily stopped operations.

Output from freshwater fish pens rose by 4.74 percent during the reference period. Rizal and Sultan Kudarat posted output gains at 5.20 percent and 5.23 percent, respectively. In Rizal, there was increased stocking of tilapia. The full blast opening of Napindan Channel during the period provided Laguna Lake with good water and sufficient natural food supply. In Sultan Kudarat, quality fingerlings were made available. Meanwhile, the undergoing repair of fish pens and those that were not stocked accounted for the reduction of 10.39 percent in Laguna.

Production of tilapia from brackishwater fishponds dropped by 18.29 percent. All provinces producing tilapia from brackishwater fishponds reported that the prolonged hot weather increased the salinity of water that stunted the growth of tilapia. This resulted in smaller sizes of tilapia harvested. Some operators shifted to tiger prawn culture while others reduced their stocks.

Harvests from brackishwater fish cages and fish pens were down by 31.67 percent. Fish farmers from Cagayan and Ilocos Norte had reduced production of 31.75 percent and 53.54 percent, respectively. In Cagayan, this was attributed to the decreased area of operations as some fish cages which were damaged by typhoons last year were not yet repaired. In Ilocos Norte, it was traced to high salinity of water caused by prolonged hot weather that some fish cage operators temporarily shifted to milkfish culture. On the other hand, La Union and Ilocos Sur posted output increases of 9.87 percent and 7.63 percent, respectively. The upward trend in both provinces can be explained by the availability of fingerlings that allowed operators for continuous stocking to sustain demand from buyers.

TIGER PRAWN

In the second quarter of 2010, tiger prawn production was estimated at 15,630.03 metric tons, 12.93 percent higher than the previous year's level (Table 7). There were large increases of 55.32 percent in Zamboanga Sibugay and 29.07 percent in Bulacan as a result of bigger sizes harvested, high survival rate and the temporary shift in the use of fishponds from tilapia to tiger prawn culture. High market demand and less mortality rate were also reported. In Lanao del Norte, a 1.00 percent increase was achieved because of the re-operations of idle ponds.

Meanwhile, Pampanga and Zamboanga del Sur posted 3.26 percent and 7.79 percent decreases, respectively. These were due to high water salinity and stunted growth because of luminous bacteria infestation. Other provinces also showed production decreases because of the effects of the El Niño phenomenon.

MUD CRAB

Production of mud crab for the second quarter of 2010 was 2,862.79 metric tons. This was 2.35 percent more than the previous year's level (Table 7). The output increases in Camarines Norte and Camarines Sur were 42.86 percent and 23.90 percent, respectively. These were explained by the availability of quality crablets and better culture management which resulted to good growth and bigger sizes of mud crab harvests. In Lanao de Norte, the resumption of pond operation and the technical assistance from BFAR effected the 8.58 percent increase of harvest in the province. In Misamis Occidental, the 7.97 percent gain in mud crab harvest was achieved because of good water salinity and quality crablets stocked.

On the other hand, production of mud crab in Pampanga was reduced by 2.99 percent due to long hot season.

CARP

Despite the damaging effects of El Niño phenomenon, carp production managed a 2.38 percent increase this second quarter of 2010. Rizal, the top producing province, registered a 5.37 percent growth in production due to the full blast opening of Napindan channel that provided fish pens and fish cages in Laguna Lake with good water and sufficient organic food supply. Aside from Rizal, the other carp producing provinces in fishpond and fish cage aquafarms pushed up overall production as more natural entry carps were harvested this period.

Carp production in other producing provinces declined from their 2009 levels. In the Metro Manila side of the lake, there was stunted growth of carps in fish cages due to inadequate food supply. This accounted for the 9.80 percent decline in production. Lesser number of cages were stocked due to high cost of fingerlings. In anticipation of the El Niño phenomenon, some Laguna fish cage operators had already reduced stocking rates and areas cultured. Fish pens undergoing rehabilitation were fewer, but those that reopened were either newly stocked or had not yet been stocked. These pulled down Laguna's output by 12.84 percent. Fishpond production of carps declined by 25.53 percent. Lanao del Norte operators had stocked less due to limited supply of fingerlings and less commercial feeds used. The prolonged hot weather produced smaller sizes of natural entry carps in Tarlac, hence, the 49.28 percent decline in production. El Niño also caused fish kill in Pampanga, reducing its carp production by 6.17 percent. There were few and smaller sizes of carps harvested in small farm reservoirs (SFRs) due to low water level caused by the prolonged hot weather (Table 7).

CATFISH

Catfish production came mostly from freshwater fishponds. The total volume of catfish harvested this quarter was 734.25 metric tons or 12.03 percent higher compared to production in the same quarter of last year (Table 7).

In Compostela Valley, there was a 159.87 percent growth in catfish production because of intensive feeding, bigger sizes of fish harvested and high demand for catfish from the municipality of Monkayo and the populace of gold panning area of Mt. Diwalwal. Harvests were also transported to the markets of Davao City and Agusan del Sur to meet the demand in these areas.

In Bulacan, the 22.24 percent increase was traced to the expansion of area operated in Bustos where operators supplied Cagayan with their harvests.

Nueva Ecija registered a significant increase of 100 percent with the increase in area harvested in the municipality of Llanera.

On the other hand, Iloilo recorded a 38.10 percent decrease mainly because of the prolonged hot weather that resulted in insufficient water supply and smaller sizes of catfish harvested. The decrease of 5.04 percent in Davao City was attributed to the intense heat during the quarter. There were operators who shifted to fingerling production from producing marketable-sized catfish.

SEAWEEDS

Seaweed production at 370,995.22 metric tons this quarter went up by 6.65 percent this year. There were reports from the top seaweed producing provinces of continuous expansion of area harvested. Availability of adequate planting materials, climatic condition with moderate tidal movement coupled with proper propagation caused the increase in production. The added demand both in the local and export market and better prices offered by traders prompted farmers to increase their produce. It was also noted that early harvest of 45 days old plant was done to avoid diseases brought about by El Niño in Palawan. However, the frequent rains that occurred during the quarter adversely affected the growth of seaweed in Maguindanao (Table 8).

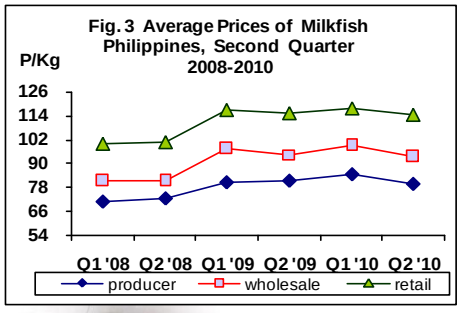
OYSTER

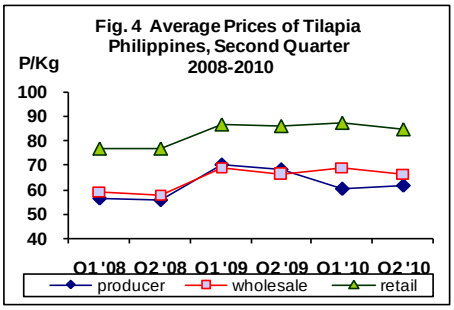
Production of oyster at 11,073.99 metric tons was 32.41 percent higher this year. Pangasinan and Cavite recorded the highest production increases of 60.41 percent and 49.22 percent, respectively. In Pangasinan, there were no predators that usually cling to oyster shells and hinder their full growth and development. The re-alignment of pens and fish corals allowing the current to enter and drive away waste materials in Bacoor Bay resulted in bigger sizes of oyster harvested in Cavite. Likewise, occurrence of quality spats, good water condition encouraged farmers to increase their harvest areas in Bulacan and Negros Occidental. Capiz continued to experience downtrend in production due to poor quality of oyster harvested caused by intense heat (Table 8).

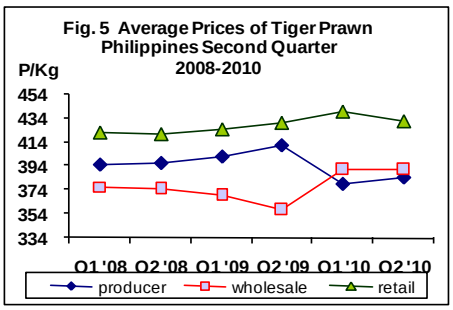
MUSSEL

Mussel production moved up by 12.73 percent this quarter. Negros Occidental contributed to this record with its 99.59 percent increment in production. The presence of more buyers in the locality and the increasing demand from nearby provinces encouraged more farmers in Negros Occidental to produce more. Availability of stakes and successive reproduction of spats resulting from the re-alignment of pens and fish corals by the provincial government of Cavite were also cited. The decrease in mussel production in Capiz was traced to smaller sizes of harvests and temporary stoppage of operations resulting from the coastal rehabilitation in Bataan (Table 8).

FISH PRICES





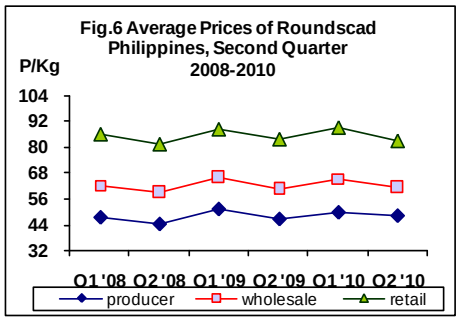


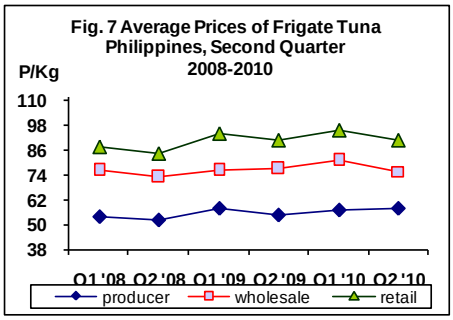
Producer price of indian mackerel went up by 19.76 percent. This was the biggest price increment recorded this second quarter of 2010. Prices of frigate tuna and roundscad also increased by 5.97 percent and 3.85 percent, respectively. Producer prices of milkfish, tilapia and tiger prawn, however, were 1.76 percent, 9.79 percent and 6.35 percent lower than their levels in the same quarter of 2009, respectively.

At the wholesale level, price of tiger prawn registered the biggest increment at 9.62 percent. Prices of tilapia and roundscad posted gains of 0.41 percent and 1.23 percent, respectively. Those of milkfish, frigate tuna and Indian mackerel declined by 1.11 percent, 1.42 percent and 2.05 percent, respectively.

At the retail market, average prices of tiger prawn and frigate tuna went up by 0.29 percent and 0.41 percent, respectively. Those of milkfish, tilapia, roundscad and Indian mackerel slid between 0.43 percent and 1.23 percent from their 2009 levels.

This second quarter of 2010, Indian mackerel and tiger prawn recorded wider producer-retail price margins at about P47. For milkfish and roundscad, the margins were of same level at P34.95. Smaller price gaps were observed in frigate tuna and tilapia at P33 and P23, respectively.





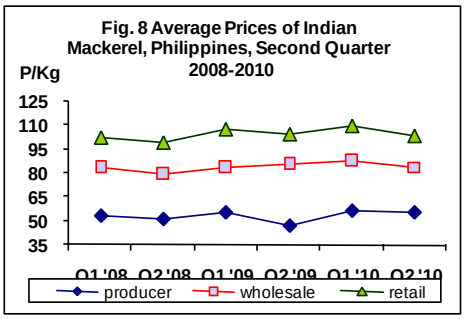


Table 1. Fisheries: Volume of Fish Production by Sector, by Region, Philippines, April - June 2009 - 2010[P]

(Metric Tons)

Region/ Sub-Sector	Fisheries		% Change	Commercial		% Change	Municipal		% Change	Aquaculture		% Change
	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09
PHILIPPINES	**1,320,484.36**	**1,313,281.15**	**(0.55)**	**396,240.26**	**370,071.11**	**(6.60)**	**383,497.74**	**372,859.84**	**(2.77)**	**540,746.36**	**570,350.20**	**5.47**
NCR	16,158.42	28,038.99	73.53	14,882.62	26,887.81	80.67	766.66	722.85	(5.71)	509.14	428.33	(15.87)
CAR	907.79	740.42	(18.44)				214.38	199.26	(7.05)	693.41	541.16	(21.96)
I	34,255.66	37,919.11	10.69	1,347.99	924.82	(31.39)	14,292.93	9,614.66	(32.73)	18,614.74	27,379.63	47.09
II	18,479.57	17,718.49	(4.12)	4,169.30	4,263.60	2.26	8,871.29	9,178.38	3.46	5,438.98	4,276.51	(21.37)
III	76,323.88	70,605.44	(7.49)	1,419.76	1,017.48	(28.33)	10,986.86	8,746.39	(20.39)	63,917.26	60,841.57	(4.81)
IV-A	91,307.74	94,649.32	3.66	22,685.17	25,451.91	12.20	26,146.59	28,388.79	8.58	42,475.98	40,808.62	(3.93)
IV-B	169,647.67	167,839.84	(1.07)	14,040.09	15,599.81	11.11	80,261.89	69,451.93	(13.47)	75,345.69	82,788.10	9.88
V	77,908.27	84,379.75	8.31	16,593.00	18,416.15	10.99	39,953.52	43,079.88	7.82	21,361.75	22,883.72	7.12
VI	130,527.05	121,284.92	(7.08)	32,656.24	26,169.69	(19.86)	47,269.49	44,798.66	(5.23)	50,601.32	50,316.57	(0.56)
VII	64,160.73	66,327.99	3.38	15,023.30	13,898.12	(7.49)	15,713.51	15,803.06	0.57	33,423.92	36,626.81	9.58
VIII	66,029.89	68,109.19	3.15	22,917.23	20,282.30	(11.50)	30,597.35	31,603.36	3.29	12,515.31	16,223.53	29.63
IX	226,271.26	212,922.55	(5.90)	141,423.22	124,925.72	(11.67)	35,133.16	33,598.53	(4.37)	49,714.88	54,398.30	9.42
X	42,235.62	44,432.47	5.20	16,348.73	16,059.68	(1.77)	11,304.40	11,805.71	4.43	14,582.49	16,567.08	13.61
XI	11,951.45	15,783.21	32.06	2,532.90	4,004.34	58.09	5,548.68	7,871.02	41.85	3,869.87	3,907.85	0.98
XII	82,390.52	61,541.56	(25.31)	64,674.80	44,120.96	(31.78)	11,218.97	11,018.82	(1.78)	6,496.75	6,401.78	(1.46)
Caraga	33,142.81	33,496.64	1.07	1,808.13	1,866.84	3.25	19,444.77	19,682.09	1.22	11,889.91	11,947.71	0.49
ARMM	178,786.04	187,491.26	4.87	23,717.78	26,181.88	10.39	25,773.29	27,296.45	5.91	129,294.97	134,012.93	3.65

P - Preliminary

Table 2. Commercial Fisheries: Volume of Fish Unloading by Region, by Type of Landing Center, Philippines, April - June 2009 - 2010[P]

(Metric Tons)

Region	Commercial		% Change	Private		% Change	PFDA		% Change	LGU		% Change	Traditional		% Change
	2009	2010	'10/'09	2009	2010	'10/'09	2009	2010	'10/'09	2009	2010	'10/'09	2009	2010	'10/'09
PHILIPPINES	**396,240.26**	**370,071.11**	**(6.60)**	**141,064.13**	**119,169.91**	**(15.52)**	**65,693.52**	**64,103.26**	**(2.42)**	**25,228.92**	**24,502.78**	**(2.88)**	**164,253.69**	**162,295.16**	**(1.19)**
NCR	14,882.62	26,887.81	80.67				14,360.80	26,307.96	83.19				521.82	579.85	11.12
CAR															
I	1,347.99	924.82	(31.39)				50.83	139.85	175.13	51.44		(100.00)	1,245.72	784.97	(36.99)
II	4,169.30	4,263.60	2.26										4,169.30	4,263.60	2.26
III	1,419.76	1,017.48	(28.33)	1,256.29	764.28	(39.16)				33.64	57.43	70.72	129.83	195.77	50.79
IV-A	22,685.17	25,451.91	12.20				4,257.00	6,165.40	44.83	1,798.79	2,056.94	14.35	16,629.38	17,229.57	3.61
IV-B	14,040.09	15,599.81	11.11										14,040.09	15,599.81	11.11
V	16,593.00	18,416.15	10.99	2,790.39	3,002.00	7.58				4,962.30	4,981.41	0.39	8,840.31	10,432.74	18.01
VI	32,656.24	26,169.69	(19.86)	2,118.19	1,276.97	(39.71)	362.58	618.90	70.69	9,013.87	7,983.00	(11.44)	21,161.60	16,290.82	(23.02)
VII	15,023.30	13,898.12	(7.49)							1,112.89	715.50	(35.71)	13,910.41	13,182.62	(5.23)
VIII	22,917.23	20,282.30	(11.50)	380.48	219.35	(42.35)				6.70	1.45	(78.36)	22,530.05	20,061.50	(10.96)
IX	141,423.22	124,925.72	(11.67)	114,092.78	98,065.98	(14.05)	2,608.18	2,573.95	(1.31)	3,572.35	2,002.85	(43.93)	21,149.91	22,282.94	5.36
X	16,348.73	16,059.68	(1.77)							4,014.93	4,882.63	21.61	12,333.80	11,177.05	(9.38)
XI	2,532.90	4,004.34	58.09	196.48	199.81	1.69	1,103.14	1,322.98	19.93	662.01	1,821.57	175.16	571.27	659.98	15.53
XII	64,674.80	44,120.96	(31.78)	20,229.52	15,641.52	(22.68)	42,950.99	26,974.22	(37.20)				1,494.29	1,505.22	0.73
Caraga	1,808.13	1,866.84	3.25										1,808.13	1,866.84	3.25
ARMM	23,717.78	26,181.88	10.39										23,717.78	26,181.88	10.39

P - Preliminary

Table 3. Municipal Fish Production by Region, Philippines, April - June 2009 - 2010[P]

(Metric Tons)

Region	Municipal		% Change	Marine		% Change	Inland		% Change
	2009	2010	'10/'09	2009	2010	'10/'09	2009	2010	'10/'09
PHILIPPINES	**383,497.74**	**372,859.84**	**(2.77)**	**344,346.87**	**335,027.13**	**(2.71)**	**39,150.87**	**37,832.71**	**(3.37)**
NCR	766.66	722.85	(5.71)	766.66	722.85	(5.71)			
CAR	214.38	199.26	(7.05)				214.38	199.26	(7.05)
I	14,292.93	9,614.66	(32.73)	13,590.87	9,138.91	(32.76)	702.06	475.75	(32.24)
II	8,871.29	9,178.38	3.46	6,327.83	6,874.26	8.64	2,543.46	2,304.12	(9.41)
III	10,986.86	8,746.39	(20.39)	8,607.02	6,830.35	(20.64)	2,379.84	1,916.04	(19.49)
IV-A	26,146.59	28,388.79	8.58	9,839.76	10,725.18	9.00	16,306.83	17,663.61	8.32
IV-B	80,261.89	69,451.93	(13.47)	79,984.22	69,254.94	(13.41)	277.67	196.99	(29.06)
V	39,953.52	43,079.88	7.82	38,264.05	41,518.32	8.50	1,689.47	1,561.56	(7.57)
VI	47,269.49	44,798.66	(5.23)	44,830.59	43,764.21	(2.38)	2,438.90	1,034.45	(57.59)
VII	15,713.51	15,803.06	0.57	15,648.60	15,757.55	0.70	64.91	45.51	(29.89)
VIII	30,597.35	31,603.36	3.29	30,307.27	31,288.21	3.24	290.08	315.15	8.64
IX	35,133.16	33,598.53	(4.37)	34,816.98	33,311.72	(4.32)	316.18	286.81	(9.29)
X	11,304.40	11,805.71	4.43	10,557.33	10,776.93	2.08	747.07	1,028.78	37.71
XI	5,548.68	7,871.02	41.85	5,513.32	7,838.14	42.17	35.36	32.88	(7.01)
XII	11,218.97	11,018.82	(1.78)	5,562.14	5,797.12	4.22	5,656.83	5,221.70	(7.69)
Caraga	19,444.77	19,682.09	1.22	18,331.54	18,600.17	1.47	1,113.23	1,081.92	(2.81)
ARMM	25,773.29	27,296.45	5.91	21,398.69	22,828.27	6.68	4,374.60	4,468.18	2.14

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Table 4. Aquaculture Production by Type of Aquafarm, by Environment and by Region, April - June 2009 - 2010[P]

(Metric Tons)

Region	Aquaculture		% Change	Brackishwater Fishpond		% Change	Brackishwater Fish Pen		% Change	Brackishwater Fish Cage		% Change	Freshwater Fishpond		% Change	Freshwater Fish Pen		% Change	Freshwater Fish Cage		% Change
	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09
PHILIPPINES	**540,746.36**	**570,350.20**	**5.47**	**93,652.47**	**89,903.65**	**(4.00)**	**1,191.22**	**143.84**	**(87.92)**	**733.55**	**418.76**	**(42.91)**	**34,820.61**	**35,536.36**	**2.06**	**14,250.09**	**14,562.79**	**2.19**	**18,983.90**	**20,153.36**	**6.16**
NCR	509.14	428.33	(15.87)	293.76	331.70	12.92										135.75			9.64	8.55	(11.33)
CAR	693.41	541.16	(21.96)										478.58	408.04	(14.74)				214.83	133.13	(38.03)
I	18,614.74	27,379.63	47.09	6,904.60	6,809.91	(1.37)	1,175.92	125.83	(89.30)	466.91	205.82	(55.92)	1,086.19	3,723.95	242.84	0.03	0.01	(62.46)	19.93	21.38	7.28
II	5,438.98	4,276.51	(21.37)	1,819.31	1,336.45	(26.54)				43.74	31.51	(27.97)	1,844.17	1,160.05	(37.10)				262.29	10.60	(95.96)
III	63,917.26	60,841.57	(4.81)	31,635.32	29,257.45	(7.52)				0.10	0.12	16.72	29,050.76	27,873.27	(4.05)					0.60	
IVA	42,475.98	40,808.62	(3.93)	2,946.22	3,350.44	13.72							498.05	358.20	(28.08)	9,637.73	10,140.08	5.21	15,053.70	16,414.55	9.04
IVB	75,345.69	82,788.10	9.88	1,516.04	1,235.46	(18.51)							151.70	133.68	(11.88)						
V	21,361.75	22,883.72	7.12	1,412.34	1,536.23	8.77							430.74	498.10	15.64				3,081.95	3,164.19	2.67
VI	50,601.32	50,316.57	(0.56)	28,861.83	26,096.93	(9.58)	10.09	15.90	57.55	4.89	4.29	(12.30)	255.90	147.80	(42.24)				1.05		
VII	33,423.92	36,626.81	9.58	1,972.63	1,945.85	(1.36)				1.54	0.95	(38.79)	38.01	29.92	(21.29)		0.10		1.39	2.23	59.86
VIII	12,515.31	16,223.53	29.63	2,488.44	2,617.28	5.18	0.59	1.57	165.42		29.68		45.31	60.92	34.46		0.60		15.00	24.46	62.99
IX	49,714.88	54,398.30	9.42	6,982.93	8,559.59	22.58				0.09	0.11	27.41	50.91	53.23	4.55		0.38				
X	14,582.49	16,567.08	13.61	3,100.54	3,231.37	4.22							284.72	266.54	(6.39)					1.67	
XI	3,869.87	3,907.85	0.98	730.25	784.88	7.48				17.72	16.28	(8.14)	328.77	591.72	79.98	15.20	40.13	164.00	0.68	0.94	39.31
XII	6,496.75	6,401.78	(1.46)	1,745.93	1,600.16	(8.35)							211.91	161.78	(23.66)	3,809.54	3,721.88	(2.30)	259.52	307.33	18.42
Caraga	11,889.91	11,947.71	0.49	575.51	512.25	(10.99)	4.62	0.55	(88.07)	198.56	130.01	(34.52)	36.36	37.02	1.81				8.33	4.51	(45.84)
ARMM	129,294.97	134,012.93	3.65	666.82	697.71	4.63							28.52	32.14	12.70	651.85	659.61	1.19	55.59	59.22	6.54

Region	Marine Fish Pen		% Change	Marine Fish Cage		% Change	Oyster		% Change	Mussel		% Change	Seaweed		% Change	Rice Fish		% Change	SFR		% Change
	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09	2009	2010	10/09
PHILIPPINES	**1,912.58**	**5,210.40**	**172.43**	**11,215.46**	**13,646.25**	**21.67**	**8,363.68**	**11,073.99**	**32.41**	**7,709.48**	**8,691.24**	**12.73**	**347,877.89**	**370,995.22**	**6.65**	**0.10**	**0.00**		**35.32**	**14.33**	**(59.42)**
NCR										70.00	88.08	25.83									
CAR																					
I	919.95	3,968.56	331.39	4,546.56	6,992.89	53.81	3,440.87	5,464.50	58.81	34.31	45.80	33.49	19.30	20.96	8.65	0.10			0.09	0.02	(71.94)
II							208.30	367.81	76.58				1,230.09	1,359.13	10.49				31.07	10.96	(64.73)
III				1,027.30	1,368.42	33.21	1,473.74	1,658.05	12.51	691.53	654.05	(5.42)	38.50	29.51	(23.35)					0.10	
IVA				0.55	0.15	(72.48)	589.20	877.99	49.01	3,596.81	4,620.46	28.46	10,153.73	5,046.75	(50.30)						
IVB				264.09	305.51	15.69				6.00			73,407.87	81,113.45	10.50						
V	32.00	43.40	35.63	0.97	3.50	261.10							16,403.75	17,638.29	7.53						
VI	352.48	313.27	(11.12)	9.04	44.27	389.64	2,326.35	2,232.82	(4.02)	2,960.04	2,902.65	(1.94)	15,819.66	18,558.13	17.31					0.52	
VII	26.05	34.85	33.82	171.65	121.70	(29.10)	166.23	218.50	31.44				31,043.01	34,270.40	10.40				3.41	2.31	(32.10)
VIII		10.90		3,422.34	2,764.50	(19.22)	7.20	12.27	70.42	350.80	380.21	8.38	6,185.62	10,321.15	66.86						
IX				4.87	5.53	13.58	113.03	203.17	79.74				42,563.06	45,576.29	7.08						
X	0.30			237.14	269.37	13.59	1.32	0.36	(72.73)				10,958.46	12,797.37	16.78					0.41	
XI	570.45	831.83	45.82	1,092.55	1,169.75	7.07	37.43	38.52	2.90				1,076.81	433.80	(59.71)						
XII				395.10	515.38	30.44							74.00	95.25	28.71				0.75		
Caraga	7.55	7.26	(3.75)	39.71	34.21	(13.86)							11,019.26	11,221.89	1.84						
ARMM	3.81	0.32	(91.52)	3.60	51.06	1,318.28							127,884.77	132,512.86	3.62						

P - Preliminary

Table 5. Aquaculture: Milkfish Production of Top Producing Provinces by Culture Environment and Type of Aquafarm, Philippines, April - June 2008 - 2009[P]

(Metric Tons)

Culture Environment/ Type of Aquafarm/Province	2008	2009	% Change 09/08
PHILIPPINES	**91,218.30**	**91,176.67**	**(0.05)**
Brackishwater Fishpond	**68,640.93**	**63,803.39**	**(7.05)**
Iloilo	12,891.13	9,366.70	(27.34)
Capiz	8,249.67	9,170.33	11.16
Bulacan	9,726.09	6,940.54	(28.64)
Pangasinan	5,307.28	5,110.38	(3.71)
Negros Occidental	4,656.10	4,450.30	(4.42)
Pampanga	4,509.07	4,243.04	(5.90)
Other Provinces	23,301.60	24,522.11	5.24
Brackishwater Fish pen	**1,183.53**	**138.90**	**(88.26)**
La Union	120.45	121.48	0.85
Aklan	10.04	15.90	58.33
Other Provinces	1,053.04	1.52	(99.86)
Brackishwater Fish cage	**664.28**	**346.84**	**(47.79)**
La Union	248.70	170.88	(31.29)
Agusan del Norte	198.56	130.01	(34.52)
Other Provinces	217.02	45.94	(78.83)
Freshwater Fish pen	**6,232.14**	**6,151.32**	**(1.30)**
Rizal	3,524.62	3,746.32	6.29
Sultan Kudarat	2,351.61	2,187.70	(6.97)
Maguindanao	182.45	186.79	2.38
Other Provinces	173.46	30.50	(82.41)
Freshwater Fish cage	**1,822.93**	**2,356.71**	**29.28**
Batangas	1,808.46	2,336.71	29.21
Other Provinces	14.47	20.00	38.17
Marine Fish pen	**1,900.61**	**5,199.58**	**173.57**
Pangasinan	919.95	3,968.56	331.39
Davao del Sur	570.45	831.83	45.82
Iloilo	25.00	118.21	372.86
Other Provinces	385.21	280.98	(27.06)
Marine Fish cage	**10,773.88**	**13,179.93**	**22.33**
Pangasinan	4,509.42	6,990.17	55.01
Western Samar	1,480.87	1,520.00	2.64
Zambales	1,023.31	1,366.11	33.50
Eastern Samar	1,520.00	950.00	(37.50)
Other Provinces	2,240.28	2,353.65	5.06

P - Preliminary

Table 6. Aquaculture: Tilapia Production of Top Producing Provinces, by Culture Environment and Type of Aquafarm, Philippines, April - June 2009 - 2010[P]

(Metric Tons)

Culture Environment/ Type of Aquafarm/Province	2009	2010	% Change 10/09
PHILIPPINES	**62,848.49**	**63,107.26**	**0.41**
Brackishwater Fishpond	**6,884.11**	**5,624.77**	**(18.29)**
Pampanga	2,405.22	2,333.54	(2.98)
Cagayan	1,214.09	914.33	(24.69)
Bulacan	1,035.46	667.77	(35.51)
Zamboanga Sibugay	903.09	349.86	(61.26)
Ilocos Sur	358.86	348.31	(2.94)
Other Provinces	967.38	1,010.96	4.50
Brackishwater Fishcage/Fishpen	**44.10**	**30.13**	**(31.67)**
La Union	5.07	5.57	9.87
Cagayan	32.16	21.95	(31.75)
Ilocos Norte	2.65	1.23	(53.54)
Ilocos Sur	1.17	1.26	7.63
Other provinces	3.04	0.12	(96.01)
Freshwater Fishpond*	**33,855.74**	**34,474.02**	**1.83**
Pampanga	25,233.76	24,474.22	(3.01)
Pangasinan	879.44	3,517.75	300.00
Tarlac	1,294.66	919.86	(28.95)
Isabela	1,135.46	793.00	(30.16)
Nueva Ecija	1,295.45	1,052.04	(18.79)
Other Provinces	4,016.97	3,717.15	(7.46)
Freshwater Fish cage	**16,829.80**	**17,495.64**	**3.96**
Batangas	9,600.59	10,712.34	11.58
Laguna	3,196.31	2,934.90	(8.18)
Camarines Sur	1,635.12	1,768.22	8.14
Albay	1,426.00	1,393.20	(2.30)
South Cotobato	258.84	306.57	18.44
Other Provinces	712.93	380.40	(46.64)
Freshwater Fish pen	**5,234.74**	**5,482.70**	**4.74**
Rizal	3,106.84	3,268.40	5.20
Sultan Kudarat	1,457.93	1,534.18	5.23
Maguindanao	467.90	471.27	0.72
Laguna	185.34	166.08	(10.39)
Davao del Norte	15.20	40.13	164.00
Other Provinces	1.53	2.64	73.17

P- Preliminary

* Including those from SFR

Table 7. Aquaculture: Production by Species of Top Producing Provinces by Culture Environment and Type of Aquafarm, Philippines, April - June 2010[P]

(Metric Tons)

Species/Province	2009	2010	% Change 10/09
Tiger Prawn	**13,839.96**	**15,630.03**	**12.93**
Brackishwater Fishpond			
Pampanga	5,282.71	5,110.49	(3.26)
Bulacan	3,406.67	4,396.99	29.07
Zamboanga Sibugay	1,876.35	2,914.35	55.32
Zamboanga del Sur	812.36	749.08	(7.79)
Lanao del Norte	559.97	565.57	1.00
Other Provinces	1,901.90	1,893.55	(0.44)
Mud Crab	**2,797.16**	**2,862.79**	**2.35**
Brackishwater Fishpond			
Pampanga	1,506.21	1,461.17	(2.99)
Lanao del Norte	808.43	877.80	8.58
Camarines Sur	63.01	78.07	23.89
Camarines Norte	51.81	74.02	42.87
Misamis Occidental	64.48	69.61	7.96
Other Provinces	303.21	302.12	(0.36)
Carp	**3,254.97**	**3,332.55**	**2.38**
Freshwater Fishpond	**140.99**	**104.99**	**(25.54)**
Lanao del Norte	72.14	60.66	(15.91)
Tarlac	51.59	26.17	(49.28)
Pampanga	6.69	6.28	(6.17)
Other Provinces	10.56	11.88	12.45
Freshwater Fish Pen/Cage	**3,112.06**	**3,227.40**	**3.71**
Rizal	2,824.19	2,975.87	5.37
Laguna	278.25	242.52	(12.84)
Metro Manila	6.92	6.24	(9.79)
Other Provinces	2.70	2.77	2.67
Small Farm Reservoir	**1.92**	**0.16**	**(91.45)**
Quirino	1.50		(100.00)
Other Provinces	0.42	0.16	(60.93)
Catfish	**655.43**	**734.25**	**12.03**
Freshwater Fishpond			
Compostela Valley	74.76	194.29	159.87
Bulacan	84.21	102.94	22.24
Nueva Ecija	42.78	85.56	100.00
Iloilo	105.00	65.00	(38.10)
Davao City	66.22	62.88	(5.04)
Other Provinces	282.46	223.59	(20.84)

P - Preliminary

Table 8. Aquaculture: Mariculture Production by Species and by Province, Philippines, April - June 2009 - 2010[P]

(Metric Tons)

Species/Province	2008	2009	% Change 09/08
Seaweed	**347,877.89**	**370,995.22**	**6.65**
Palawan	72,565.62	79,649.37	9.76
Tawi-Tawi	62,182.84	66,025.73	6.18
Sulu	44,047.13	44,884.02	1.90
Bohol	29,384.99	32,199.17	9.58
Maguindanao	20,758.08	20,652.22	(0.51)
Other Provinces	118,939.23	127,584.71	7.27
Oyster	**8,363.68**	**11,073.99**	**32.41**
Pangasinan	3,364.58	5,397.24	60.41
Bulacan	1,468.98	1,653.34	12.55
Capiz	1,382.74	1,323.00	(4.32)
Cavite	588.39	877.99	49.22
Negros Occidental	476.60	581.26	21.96
Other Provinces	1,082.40	1,241.17	14.67
Mussel	**7,709.48**	**8,691.24**	**12.73**
Cavite	3,596.81	4,620.46	28.46
Capiz	2,689.67	2,458.09	(8.61)
Bataan	691.53	654.05	(5.42)
Negros Occidental	195.51	390.21	99.59
Samar	350.20	380.00	8.51
Other Provinces	185.77	188.43	1.43

P - Preliminary

Table 9. Producer, Wholesale and Retail Prices and Price Margins of Selected Fish Species, Philippines, April - June 2008 - 2010

(Peso per Kilogram)

Species	Producer			% Change 10/09	Wholesale*			% Change 10/09	Retail*			% Change 10/09	Price Margins					
													Producer - Wholesale			Producer - Retail		
	2008	2009	2010		2008	2009	2010		2008	2009	2010		2008	2009	2010	2008	2009	2010
Milkfish	72.23	80.74	79.32	(1.76)	80.79	94.25	93.20	(1.11)	100.73	114.76	114.27	(0.43)	8.56	13.51	13.88	28.50	34.02	34.95
Tilapia	55.65	68.20	61.52	(9.79)	57.63	65.97	66.24	0.41	76.51	85.63	84.58	(1.23)	1.98	(2.23)	4.72	20.86	17.43	23.06
Tiger Prawn	396.85	411.12	385.02	(6.35)	374.68	356.98	391.33	9.62	420.57	430.87	432.11	0.29	(22.17)	(54.14)	6.31	23.72	19.75	47.09
Roundscad	44.15	46.21	47.99	3.85	58.35	60.22	60.96	1.23	81.04	83.78	82.94	(1.00)	14.20	14.01	12.97	36.89	37.57	34.95
Frigate Tuna	52.27	54.59	57.85	5.97	72.89	76.71	75.62	(1.42)	84.40	90.58	90.95	0.41	20.62	22.12	17.77	32.13	35.99	33.10
Indian Mackerel	51.05	46.67	55.89	19.76	79.24	85.92	84.16	(2.05)	99.41	104.71	103.58	(1.08)	28.19	39.25	28.27	48.36	58.04	47.69

**** BAS AMSAD data***