

## HIGHLIGHTS



Fig. 2 Fisheries: Percent Distribution of Production by Sector, Philippines, April-June 2012


The total volume of fisheries production during the second quarter of 2012 was 2.58 percent lower than last year's level. Production in all sectors, commercial, municipal, and aquaculture, dropped. Municipal fisheries production exhibited the biggest decrease at 7.47 percent. Commercial fisheries production indicated a 0.27 percent lesser output this quarter while aquaculture experienced a 0.84 percent decline in output (Table 1).

Commercial fishermen unloaded a total of $321,226.69$ metric tons of fish catch this quarter. Year-onyear, this was 873.52 metric tons lower. The decrease in the volume of unloadings was registered in 11 regions while five (5) regions fared well during the quarter. The decrease in the volume of unloadings was traced to dry-docking of some commercial fishing vessels, lesser appearance of some in-season species and high costs of operation. Likewise, the early occurrence of typhoons and other weather disturbances led commercial fishermen to decrease the frequency of their fishing operations. On the other hand, the output gain was largely attributed to the partial lifting of the ban on the use of purse seine in the fishing grounds of Indonesia and Papua New Guinea and the fishing moratorium on sardines in 15 areas of Western Mindanao. In terms of volume of commercial fish catch unloaded, the leading region was Zamboanga Peninsula with $84,292.76$ metric tons. It was followed by SOCCSKSARGEN with $52,943.01$ metric tons. The commercial sector contributed about 25.68 percent to the total fisheries production.

Municipal fisheries production at $337,674.93$ metric tons was $27,268.43$ metric tons lower than last year's second quarter record. Thirteen (13) regions recorded decreases in production while four (4) regions managed to outdo their 2011 second quarter performance. The volume of fish unloaded by marine municipal fishing boats reached $296,084.58$ metric tons which shared 87.68 percent in the total municipal fisheries output. Marine municipal fisheries production slid by 8.71 percent or $28,263.46$ metric tons. The downward trend in production was largely a result of reduced fishing operations and fishing trips due to rough sea brought by typhoons during the quarter. The volume of fish caught by inland municipal fishing households at $41,598.63$ metric tons was 12.32 percent of the total municipal fisheries output. It registered a 2.47 or $1,003.31$ metric tons production increment. This was largely attributed to continuous dispersal of fingerlings by the Bureau of Fisheries and Aquatic Resources (BFAR) and more fishing operations due to favorable weather condition. Municipal fisheries contributed about 27.00 percent to the total fisheries production.

Aquaculture production at $591,896.56$ metric tons was $5,027.37$ metric tons lower than last year's second quarter record. Seaweed production at $383,694.82$ metric tons contributed more than half or 64.82 percent to the total aquaculture production. Fin fishes and shell fishes, on the other hand, contributed 35.18 percent. These included milkfish, tilapia, tiger prawn, oyster and mussel. Seaweed production went down by
2.84 percent or $11,227.90$ metric tons. The decline in production was traced to rampant attack of ice-ice disease, especially, in the top seaweed producing provinces, namely: Tawi-Tawi, Sulu and Palawan. ARMM which produced $126,619.44$ metric tons accounted for the bulk of seaweed produced. Aquaculture contributed 47.32 percent to the total fisheries production.

## COMMERCIAL FISHERIES

Commercial fishing produced 0.27 percent less output in the $2^{\text {nd }}$ quarter of 2012. The volume of unloading was estimated at $321,226.69$ metric tons or 873.52 metric tons lower than last year's second quarter record of $322,100.21$ metric tons. Production cuts were noted in 11 regions, namely: Cagayan Valley, Central Luzon, National Capital Region, CALABARZON, Bicol Region, Western Visayas, Central Visayas, Eastern Visayas, Northern Mindanao, Davao Region and Caraga. The shortfall was attributed to dry-docking of fishing vessels for repair and maintenance. In particular, this was observed in the provinces of Cagayan, Bulacan, Cavite, Camarines Sur, Negros Occidental, Eastern Samar, Zamboanga Sibugay, Misamis Occidental and Camiguin. There were reductions in the number of fishing days and trips due to rough seas brought about by the occurrence of typhoons and other weather disturbances during the quarter. Lesser appearance of some inseason species such as roundscad, fimbriated sardines and frigate tuna was also reported. The high cost of operation was another factor that contributed for reduced fishing activities (Table 2).

On the other hand, five (5) regions turned out to be gainers, these were: llocos Region, MIMAROPA, Zamboanga Peninsula, SOCCSKSARGEN and ARMM. The output increments in SOCCSKSARGEN and Zamboanga Peninsula were results of the partial lifting of ban on the use of purse seine in the fishing grounds of Indonesia and Papua New Guinea last April 2012 and the lifting on the implementation of fish moratorium on sardines by the Bureau of Fisheries and Aquatic Resources (BFAR). The ban on sardines fishing in 15 areas of Western Mindanao was implemented from December 1, 2011 to March 1, 2012 to save the dwindling population of sardines. In SOCCSKSARGEN, the volume of unloadings grew by 18.04 percent or $8,090.49$ metric tons. This was largely a result of the increases in the unloading of yellowfin tuna by $3,316.26$ metric tons and skipjack by $2,108.89$ metric tons. These increases were biggest in South Cotabato, and these were, specifically, unloaded at the Philippine Fisheries Development Authority (PFDA)-managed port. The output increment in Zamboanga Peninsula was largely attributed to the 13.18 percent or $7,150.99$ metric tons increase in volume of unloadings of Indian sardines. Zamboanga City had the biggest share of these unloading. In llocos Region, MIMAROPA and ARMM, more fishing trips were noted due to less weather disturbances and early occurrence of some in-season species.

Zamboanga Peninsula accounted for the bulk of commercial fish catch unloaded at 84,292.76 metric tons of which 85.09 percent or $71,727.49$ metric tons were unloaded at Zamboanga City landing centers. It was noticeable that 87.29 percent or $62,610.79$ metric tons of fish catch in Zamboanga City were unloaded at private landing centers. More unloadings of commercial fish catch were recorded in SOCCSKSARGEN. These added up to $52,943.01$ metric tons of which 97.10 percent or $51,407.52$ metric tons were unloaded at South Cotabato landing centers. ARMM, Western Visayas and National Capital Region (NCR) followed with total unloadings of 27,339.49, 25,925.27 and 23,581.09 metric tons, respectively.

Except for the traditional landing centers which came up with 5.29 percent or $7,983.46$ metric tons less output this quarter, all types of landing centers recorded production gains. The volume of fish catch unloaded at private landing centers went up by 3.40 percent or $2,694.96$ metric tons. Unloadings at the ports managed by the Philippine Fisheries Development Authority (PFDA) recorded a 3.37 percent or 2,207.12 increment. Unloading at the Local


Government Unit (LGU)-managed landing centers grew by 8.41 percent or 2,207.86 metric tons. Traditional landing centers accounted for the bulk of commercial fish catch unloaded at 143,018.53 metric tons or 44.52 percent of the total commercial fisheries production.

## MUNICIPAL FISHERIES

The lean catch of municipal fishermen in the second quarter was attributed mainly to the unpredictable weather conditions that prevailed in most parts of the country. Fishermen hoped for better catch during the summer months but this was hampered by the early occurrence of rains in June.


Production of municipal fisheries sector continued to drop due to uncertainty of catch by sustenance fishermen. The volume of unloadings was 8.71 percent lower than the same quarter last year. However, fish caught from inland waters was up by 2.45 percent. Total output of the sector fell by 7.47 percent during the reference period. Inter-Tropical Convergence Zones (ITCZs), Low Pressure Areas (LPAs) and southwest monsoon slowed down and even prevented fishermen for conducting regular fishing operations.

Luzon regions had the bigger share at 43.67 percent in total municipal fisheries production compared to those in Visayas at 25.68 percent and Mindanao at 30.65 percent. Topping the list of big contributors were MIMAROPA, Western Visayas, Bicol Region, Zamboanga Peninsula, Eastern Visayas, CALABARZON and ARMM. Quarterly production from these regions ranged from over 26,000 metric tons to almost 50,000 metric tons.

Out of 17 regions, 13 reported negative growth in total municipal fisheries production. The deficit of 27,268.43 metric tons came largely from MIMAROPA, 16,997.70 metric tons, Eastern Visayas, 2,218.62 metric tons, Caraga, $1,570.65$ metric tons, Davao Region, $1,534.42$ metric tons, llocos Region, $1,378.34$ metric tons and Cagayan Valley, $1,366.23$ metric tons. The four (4) regions with positive growth during the quarter were CALABARZON, SOCCSKSARGEN, Cordillera Administrative Region (CAR) and National Capital Region (NCR).

Provinces that were consistently big contributors to the total municipal fish production reported huge losses during the quarter. Production in Palawan was down by 28.78 percent or $17,215.89$ metric tons, Surigao del Norte, 11.38 percent or $1,345.32$ metric tons, Zamboanga City, 9.42 percent or $1,266.73$ metric tons, Cebu, 5.10 percent and Iloilo, 4.35 percent.

The declining volume of fish catch in the country was observed and being associated with exploitation of some fishing grounds. Related with excessive fishing was the harvesting of immature fish. Municipal fishers exerted efforts to compete with bigger and better-equipped commercial fishing boats that continued to operate within the 15 km . radius. Smaller sizes of species caught were unloaded in different landing centers. The alleged over-fishing in some fishing grounds caused some marine species to become scarce. Hours spent by fishermen in fishing grounds became shorter, especially those with motorized fishing boats, to save on fuel. Fishermen using light and non-motorized boats dry-docked their boats while waiting for the weather to improve. The number of boats in operation during the quarter was reduced considerably. Temporary suspension of fishing operations meant reduced or lost income for sustenance fishermen.

Aside from weather, there were fishing practices that were destructive to mangroves and coral reefs that resulted in low catch of fishermen. These included blast fishing and the use of poisons. Pollution from factories, banana plantations and mine tailings added to the worsening condition of fishery resources. Dwindling catch led marginal fishermen to shift to other sources of livelihood like carpentry and constructions jobs.

Meanwhile, inland fisheries benefited from rains that caused water levels of rivers, lakes, creeks, dams, irrigation canals, to rise and became good breeding grounds for freshwater species. Rise in water level also allowed fishermen to set-up more fish traps and fish shelters.

CALABARZON continued to be the biggest source of inland species like tilapia, carp, gourami, mudfish and even shells or "suso". Output of the region for the quarter reached $18,287.14$ metric tons and shared 43.96 percent in the total inland production. The proliferation of knife fish in Laguna Lake contributed to the increased production in Laguna and Rizal provinces. ARMM and SOCCSKSARGEN, where bigger lakes could be found, like Lake Sebu, Lake Lanao, Lake Buluan and Liguasan Marsh, also performed better than the same quarter last year. They had a combined share of 27.91 percent in the total output of inland fisheries.

## AQUACULTURE

During the second quarter of 2012, aquaculture produced 592 thousand metric tons and this was 0.84 percent lower than the previous year's level. Bigger decreases at 2.84 percent and 20.74 percent were observed in seaweed and oyster farms, respectively. Harvests from marine fish pens and fish cages, freshwater fish cages and mussels increased (Table 4).


Quantity-wise, seaweed comprised 64.82 percent of the total aquaculture production. In MIMAROPA, output was down due to the effects of ice-ice disease brought about by sudden change in weather condition in Palawan. The same situations were observed in the provinces of Sulu and Tawi-Tawi in ARMM. Moreover in Central Visayas, seaweed farms in Bohol were affected by epiphytes.

Decline in oyster production was traced to llocos Region where oyster beds were removed as part of the clean-up drive of Agno River by the local government.

On the other hand, more milkfish were harvested from marine fish pens and fish cages in Pangasinan as a result of increased stocking and intensive feeding. Also, no fish kill nor destructive typhoon occurred in llocos Region during the period.

Production from freshwater fish cages increased by 9.07 percent due to more stocking and nonoccurrence of fish kill along Taal Lake in Batangas. Further boost in aquaculture production was attributed to 16.21 percent increment in mussel production. In Cavite, good growth of mussel spats was the outcome of the alignment of structures along Bacoor Bay.

The following table shows the percentage change in production by aquafarm type and by environment from 2011 to 2012.

Type of Aquafarm/Environment
Brackishwater fishpond 0.18
Brackishwater fish pen 7.33
Brackishwater fish cage 1.16
Freshwater fishpond 1.18
Freshwater fish pen 0.66
Freshwater fish cage 9.07
Small Farm Reservoir 179.38
Marine fish pen 29.14
Marine fish cage 20.41
Oyster (21.74)
Mussel
16.21

Seaweed

## SELECTED AQUACULTURE SPECIES

## Milkfish

Total milkfish production in the second quarter of 2012 at $98,633.01$ was 5.58 percent more than the production in the
 same quarter of last year. Production gains were recorded in all types of aqua farm except brackishwater fish cages (Table 5).

Output from brackishwater fishpond grew by 1.26 percent. This was attributed to the increase in stocking rate in response to demand from local cannery and food establishments. However, milkfish production were lower in Iloilo, Pangasinan and Pampanga. It was caused by the poor growth of natural food due to sudden change of water temperature that stunted growth of the species. It was also reported that some operators delayed their stocking because of high costs of material inputs.


Harvests of milkfish from brackishwater fish pens went up by 10.70 percent. The output increase came from La Union and Aklan. Fish farmers in Aklan increased their stocking density to meet the demand for boneless milkfish in the market. Similarly, the increase of production in La Union was attributed to the shifting from tilapia to milkfish culture in the municipalities of Dulao and Aringay.

Meanwhile, production of milkfish from brackishwater fish cages dropped by 7.53 percent. The production gain of 27.46 percent in Agusan del Norte did not offset the losses incurred in La Union and other provinces. Fish cage operators in San Fernando, La Union recorded high mortality rate due to the low water level brought about by siltation at the mouth of estuaries.

Harvests of milkfish from freshwater fish pens and fish cages grew by 0.82 percent and 21.65 percent, respectively. The output increase from freshwater fish pens was the result of early harvest of milkfish in the municipalities of Binangonan, Pililia and Cardona in Rizal as operators were apprehensive of fish kills. In Sultan Kudarat, the production growth of 0.30 percent was brought about by high market demand for milkfish. The bulk of milkfish harvest from freshwater fish cages came from Batangas where production increased by 21.92 percent. The output growth was realized with the usage of quality fingerlings, intensive feeding and proper management of the farms. The operators were also warned of possible fish kills and they harvested their stocks before the end of quarter.

Milkfish production from marine fish pens and fish cages increased by 29.26 percent and 19.99 percent, respectively. The output gains were due to non-incidence of fish kills and the absence of destructive typhoons during the quarter. Increase harvested area was because of quality fingerlings stocked. Similarly, the volume of milkfish harvested in Davao del Sur, lloilo and Zambales, showed an upward trend as a result of better farm management coupled with proper feeding management. On the other hand, production in Samar went down by 12.22 percent because some fish cages were under repair.

## TILAPIA

In the second quarter of 2012, tilapia production increased by 2.86 percent from last year's level. About 55 percent of the total tilapia production came from freshwater fish ponds, 27 percent from freshwater fish cages, eight (8) percent from freshwater fish pens, 9 (nine) percent from brackishwater fishponds and the remaining one percent came from brackishwater fish pens/cages, small farm reservoirs and marine fish cages (Table 6).

Production in freshwater fishponds grew by 0.38 percent this quarter. Provinces that contributed to output increase were Tarlac and Davao del Sur. Tarlac came up with 32.29 percent increase in output. Production was enhanced by the availability of fingerlings and demand from the local market and neighboring provinces. Davao del Sur recorded a 325.35 percent more output and this was attributed to the increase in area, availability of fingerlings, noting that more fingerlings were dispersed by BFAR. Intensive feeding practices were also observed in the province. On the other hand, harvests in Pampanga, Pangasinan and Isabela decreased by 1.77 percent, 10.26 percent and 18.99 percent, respectively. The output decrease in Pampanga and Pangasinan was due to reduction in area harvested. Some fish farmers in Pampanga shifted to crop farming. In Pangasinan, there was increased water level caused by frequent rains. In Isabela, the reduction of harvests was attributed to the abrupt change of weather and movement of harvest from second to the third quarter of the year.


Harvests from freshwater fish cages increased by 7.97 percent. This development was contributed by Batangas where production went up by 15.05 percent and by Albay which produced 0.35 percent more output. Batangas exhibited increase in area harvested and early harvesting were done by farmers upon advice of possible fish kill along Taal Lake during the later part of the quarter. In Albay, there was an availability of quality fingerlings. Frequent harvesting from fish cages were done because of less supply of marine fishes. On the other hand, Laguna, Camarines Sur, and South Cotabato recorded output decreases of 1.44 percent, 5 percent and 11.58 percent, respectively. In Laguna, there were reports of incidence of fish kill and some fish cages were not utilized due to insufficient capital to sustain its operation. In Camarines Sur, stocking was reduced in anticipation of implementation of zoning of fish cages area especially in Lake Buhi. In South Cotabato, there was cropping movement and delayed stocking due to fish kill in Lake Sebu last quarter.

The volume of harvests in freshwater fish pens was down by 0.60 percent this quarter. The provinces contributing to this negative growth were Rizal, Maguindanao, and Laguna where all species production dropped by 0.77 percent, 2.91 percent and 1.48 percent. In Rizal and Laguna, the reason cited for the drop in output were the incidence of fish kill in Jala-Jala and Pililia and financial constraints of the farmers. In Maguindanao, some fish pen operators temporarily stopped their production activities because of insufficient capital and frequent rains that resulted in muddy and high water level. On the other hand, there was a 0.43 percent output gain in Sultan Kudarat which was attributed to the increase in area harvested and quality tilapia harvested because of less occurrence of water lilies and filthy water in Lake Lutayan. The increment of 30.98 percent in Davao del Norte was realized as big-sizes of tilapia were harvested in the province. Also, some operators in the province resumed their operations with the availability of fingerlings.

Production of tilapia from brackishwater fishponds went up by 5.93 percent this quarter. Cagayan, Pangasinan, Bulacan and llocos Sur contributed to this output increase. In Cagayan and Pangasinan, bigsizes of tilapia were harvested owing to improved feeding practices, high market demand during the Lenten season and more natural entry tilapia were harvested. Bulacan came up with 6.73 percent more output due to demand and good market price offered prompting some operators to go back to production of marketable-size tilapia from fingerlings business. In addition, those fishponds which were not operational last year were back
in operation. The 2.81 percent positive growth in llocos Sur was the result of continous dispersal of quality fingerlings from BFAR and additional area harvested in the municipalities of Sta. Catalina and San Vicente. On the contrary, Pampanga recorded a 3.59 percent decrease mainly because of sudden change in water temperature that resulted in high water salinity. Lesser stocking was also reported due to low survival rate.

Harvests from brackishwater fish pens and cages were 3.93 percent higher compared to the last year's record. Cagayan posted a 16.87 percent gain in production because of the increase in the number of fish cages utilized, improved feeding practices and high market demand during Lenten season. There was movement of harvests from first to second quarter. The result of shifting from milkfish and siganid to tilapia culture and the availability of fingerlings in llocos Norte allowed operators to produce 48.31 percent more than in the same quarter of 2011. Fish farmers in llocos Sur were able to increase their production by 12.19 percent with the continous dispersal of quality fingerlings from BFAR and additional area harvested in San Vicente. On the contrary, a 76.26 percent output reduction was recorded in La Union as most operators shifted to milkfish culture.

Harvests from small farm reservoirs (SFRs) reported an output increase of 218.05 percent. The increased outputs in Pampanga and Nueva Ecija were traced to the early onset of rainfall resulting in good water level. The delayed harvests in Quirino and Isabela from first to second quarter and sufficient water supply in North Cotabato permitted operators to harvest more due to its big-sized produce.

It is noteworthy to mention that tilapia cultured in marine fish cages in Dauis, Bohol produced 0.45 metric ton more than from last year's production of 0.30 metric ton.

## Tiger Prawn

Tiger prawn production was estimated at 14.5 thousand metric tons during the second quarter of 2012. This was 10.32 percent lower than the previous year's output of 16.1 thousand metric tons (Table 7).

The decline in volume of tiger prawn production was biggest in Zamboanga Sibugay where the species was affected by white spot disease. There was also scarcity of good quality larvae. Pampanga, which is the top producing province, reported a 4.91 percent decrease in production due to low stocking caused by sudden changes in water temperature. In other provinces, the decline in production was attributed to low survival rate.


Meanwhile, production increases in Bulacan and Lanao del Norte were results of increase in area harvested which was encouraged by profitability of tiger prawn culture.


## Mud Crab

During the second quarter of 2012, mudcrab production at 3.5 thousand metric tons was down by 2.57 percent from the previous year's record (Table 7).

The biggest decline was noted in Pampanga where stocking rate was low as a result of poor quality of crablets. In other provinces, some brackishwater fishpond operators stopped operation because of insufficient capital to cover the high cost of inputs.

In Lanao del Norte, good growth of mudcrab allowed farmers to harvest bigger sizes of produce. Production increases in Camarines provinces were attributed to increased stocking and high survival rate.

## CARp

The volume of carp production this second quarter of 2012 was $3,537.42$ metric tons. This was 2.83 percent higher than the 2011 same quarter output. All aquafarms producing carps posted positive growth. Rizal, the top producing province, had a 2.76 percent output gain resulting from higher survival rate and bigger sizes of carps produced. This moved the production of the species from freshwater fish pens and fish cages upward. However, Laguna, Metro Manila and other provinces had lower outputs. Meanwhile, carp production from fishponds in Tarlac went up by 77.24 percent. The availability of fingerlings prompted operators in Tarlac to resume operations and utilize more areas. However, carp production from fishponds in Lanao del Norte, Pampanga and other provinces declined. From the small farm reservoirs (SFRs), 187.91 percent production increment was attributed to early onset of rains in Pampanga and the increased harvest of carps of natural entry in North Cotabato and other provinces this year (Table 7).

## CATfish

Table 7 showed that total catfish production in the second quarter
 of 2012 was 785.99 metric tons or 25.95 percent higher than the production of the same quarter last year. The increase in production was contributed by Bulacan, Iloilo, Tarlac, Davao City and Nueva Ecija. Bulacan recorded a 412.09 percent increase due to quality fingerlings and high market demand. The production increase of 2.51 percent in lloilo was due to the availability of fingerlings, adequate water level and proper feeding. It was noted that operators in Pototan, lloilo utilized kangkong and chicken entrails as feeds to their cultured catfish. Tarlac production rose by 425.62 percent because of the increase in area harvested and availability of quality fingerlings. In Davao City, output went up by 11.47 percent because of the increase in area harvested and availability of fingerlings and sufficient feeding. Meanwhile, Nueva Ecija gained 57 percent more output due to the early onset of rainfall, good pond management and proper feeding (Table 7).

Production of catfish from small farm reservoirs (SFRs) increased by 13.05 percent this quarter of 2012. The provinces of North Cotabato, Quirino, and Cagayan contributed to the growth. It was reported that more catfish were harvested as a result of sufficient water supply brought by frequent rains. Also, bigger sizes of catfish were produced because of prolonged culture period. Isabela and Guimaras posted lower production as harvesting was moved to the third quarter and some catish raisers stopped operation due to limited supply of fingerlings.

## Seaweed



Seaweed production dropped by 2.84 percent in the second quarter of 2012. The top seaweed producing provinces suffered from continuous infestation of iceice diseases. The sudden change of temperature during the quarter affected the yield of seaweed in most producing municipalities in Palawan. Most of the operators were still in the propagation period and expected to harvest next quarter. Poor growth of seaweed was the effect of continuous presence of epiphytes which forced seaweed farmers in Bohol to lengthened their culture period. The unfavorable weather condition that prevailed in the area caused the delay of farming activities in Tawi-Tawi. Rampant attack of siganid fry forced some farmers to relocate and transfer their farms in order to save their seedling for the next planting season while others temporarily stopped operation. Likewise, the uncontrolled sea turtles that stayed in the farms led to the decrease in area harvested in Sulu. Sea turtles nibbled the stems of the seaweed and consequently, damaged the plant. A 16.46 percent increase in Zamboanga Sibugay was due to favorable weather condition that enhanced the growth of seaweed. Also, most farmers were back to their normal operation after several disturbances in the past quarters (Table 8).

## Oyster



Oyster production went down by 20.74 percent this quarter. The 28.52 percent decrease in output in lloilo was due to lesser demand and low buying price of oyster that made operators reduce their area harvested. The production cut by 71.20 percent in other provinces was the result of total removal of oyster beds, specifically, along Agno River in Pangasinan. On the other hand, the 44.22 percent increase in Cavite was traced to the occurrence of quality spats and absence of red tide in the area. This encouraged farmers to plant more to sustain high demand from traders. The high buying price offered from the local traders, restaurants and eateries influenced oyster farmers to expand their area harvested in Negros Occidental and Capiz. The increase in volume of oyster in Bulacan was due to bigger sizes of oyster produced during the period (Table 8).

## Mussel

Mussel production increased by 16.21 percent in the second quarter of 2012. A 37.80 percent growth of production was observed in Cavite. The occurrence of natural spats from the realignment of poles along Bacoor Bay and good weather condition resulted in bigger sizes and good quality of mussel produced. In addition, the absence of red tide during the period prompted operators to increase their frequency of harvests to sustain the demand of local traders.

On the other hand, the 48.93 percent decline of production in Negros Occidental was the effect of rezoning in Himamaylan River where most of the mussel stakes were located. Clearing of illegal structures was done in the area. In Bataan, the occurrence of red tide brought production and area harvested down. Furthermore, low water salinity resulted in poor quality and smaller sizes of mussel harvested in Samar (Table 8).

## Prices



Milkfish. Average prices at all levels had twin digit increases this second quarter of 2012. The 14.70 percent increment in wholesale price was by far the biggest among the prices of six (6) selected fish species. Producer and retail prices moved upward by around 12 percent.

Tilapia. Producer price had gone up by 13.21 percent. Same with retail and wholesale prices that were averaged higher, by 5.47 percent and 2.02 percent, respectively.

Tiger prawn. Producer and retail prices were 1.50 percent and 2.06 percent higher than their 2011 same quarter prices, respectively. Wholesale price dropped by 4.01 percent.

Roundscad. Prices at all levels had gone up from their 2011 quotations. Producer and retail prices increased by around seven (7) percent each and wholesale price, by 4.10 percent.

Indian mackerel. Wholesale price rolled up by 14.30 percent. Increases were also observed in the producer and retail prices that corresponded to 8.17 percent and 5.56 percent.

Frigate Tuna. Producer and retail prices increased by 6.19 percent and 5.50 percent. Wholesale price slid by 0.35 percent.

Producer-retail price margins were observed to be wider in tiger prawn and Indian mackerel, at P58 and P53, respectively. Those of roundscad, frigate tuna and milkfish were P46, P42 and P35. Tilapia had the narrowest price margin at P25.

Table 1. Fisheries: Volume of Fish Production by Sector, by Region, Philippines, April - June 2011-2012 ${ }^{\text {P }}$

| Region/ <br> Sub-Sector | Fisheries |  | \% Change | Commercial |  | \% Change | Municipal |  | \% Change | Aquaculture |  | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | 2012 |  | 2011 | 2012 |  | 2011 | 2012 |  | 2011 | 2012 |  |
|  | -metric tons- |  |  | -metric tons- |  |  | -metric tons- |  |  | -metric tons- |  |  |
| PHILIPPINES | 1,283,967.50 | 1,250,798.18 | (2.58) | 322,100.21 | 321,226.69 | (0.27) | 364,943.36 | 337,674.93 | (7.47) | 596,923.93 | 591,896.56 | (0.84) |
| NCR | 30,139.16 | 26,054.17 | (13.55) | 28,122.30 | 23,581.09 | (16.15) | 1,419.87 | 1,805.08 | 27.13 | 596.99 | 668.00 | 11.89 |
| CAR | 851.82 | 875.11 | 2.73 |  |  |  | 245.68 | 258.90 | 5.38 | 606.14 | 616.21 | 1.66 |
| I | 35,113.15 | 35,139.42 | 0.07 | 644.35 | 664.70 | 3.16 | 10,445.07 | 9,066.73 | (13.20) | 24,023.73 | 25,407.99 | 5.76 |
| II | 20,606.72 | 18,393.63 | (10.74) | 5,328.08 | 5,213.59 | (2.15) | 10,003.94 | 8,637.71 | (13.66) | 5,274.70 | 4,542.33 | (13.88) |
| III | 72,835.47 | 73,107.53 | 0.37 | 978.18 | 731.85 | (25.18) | 9,196.68 | 8,670.49 | (5.72) | 62,660.61 | 63,705.19 | 1.67 |
| IV-A | 89,898.01 | 91,982.92 | 2.32 | 20,696.52 | 19,010.80 | (8.14) | 27,774.87 | 28,012.11 | 0.85 | 41,426.62 | 44,960.01 | 8.53 |
| IV-B | 171,410.39 | 141,297.94 | (17.57) | 15,398.89 | 15,751.95 | 2.29 | 66,692.42 | 49,694.72 | (25.49) | 89,319.08 | 75,851.27 | (15.08) |
| V | 86,177.74 | 85,939.88 | (0.28) | 19,109.09 | 19,041.20 | (0.36) | 42,245.95 | 41,304.96 | (2.23) | 24,822.70 | 25,593.72 | 3.11 |
| VI | 128,062.77 | 125,258.96 | (2.19) | 27,589.49 | 25,925.27 | (6.03) | 43,728.72 | 43,716.14 | (0.03) | 56,744.56 | 55,617.55 | (1.99) |
| VII | 67,194.92 | 63,488.80 | (5.52) | 12,733.36 | 11,814.82 | (7.21) | 14,910.15 | 14,857.59 | (0.35) | 39,551.41 | 36,816.39 | (6.92) |
| VIII | 64,470.02 | 60,679.91 | (5.88) | 18,410.07 | 16,043.23 | (12.86) | 30,351.82 | 28,133.20 | (7.31) | 15,708.13 | 16,503.48 | 5.06 |
| IX | 179,319.53 | 188,380.54 | 5.05 | 80,968.78 | 84,292.76 | 4.11 | 32,484.48 | 31,848.96 | (1.96) | 65,866.27 | 72,238.82 | 9.67 |
| X | 42,461.41 | 42,480.31 | 0.04 | 14,935.04 | 13,940.35 | (6.66) | 11,639.57 | 11,480.95 | (1.36) | 15,886.80 | 17,059.01 | 7.38 |
| XI | 15,485.95 | 14,978.04 | (3.28) | 3,708.84 | 3,573.05 | (3.66) | 7,981.18 | 6,446.76 | (19.23) | 3,795.93 | 4,958.23 | 30.62 |
| XII | 62,446.38 | 71,395.43 | 14.33 | 44,852.52 | 52,943.01 | 18.04 | 11,288.85 | 11,509.89 | 1.96 | 6,305.01 | 6,942.53 | 10.11 |
| Caraga | 30,649.95 | 29,599.02 | (3.43) | 1,734.95 | 1,359.53 | (21.64) | 17,400.66 | 15,830.01 | (9.03) | 11,514.34 | 12,409.48 | 7.77 |
| ARMM | 186,844.12 | 181,746.54 | (2.73) | 26,889.75 | 27,339.49 | 1.67 | 27,133.45 | 26,400.73 | (2.70) | 132,820.92 | 128,006.32 | (3.62) |

P - Preliminary
Table 2．Commercial Fisheries：Volume of Fish Unloading，by Type of Landing Center and by Region，Philippines，April－June 2011－2012 ${ }^{\text {P }}$

|  |  | $\stackrel{\xi}{\underline{x}}$ | $\begin{aligned} & \hline \stackrel{\overparen{N}}{\stackrel{1}{6}} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \dot{G} \\ & \dot{J} \end{aligned}$ | $\stackrel{\stackrel{\circ}{\text { ¢ }}}{\sim}$ | $\begin{aligned} & \hline \stackrel{గ}{\mathrm{~N}} \\ & \stackrel{\text { N }}{ } \end{aligned}$ | $\begin{aligned} & \hline \stackrel{\circ}{\mathrm{e}} \\ & \stackrel{\text { n }}{ } \end{aligned}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{\mathrm{O}} \\ & \stackrel{y}{*} \end{aligned}$ | $\stackrel{\text { ベ }}{ }$ | $\stackrel{\text { N }}{\sim}$ |  | $\begin{aligned} & \mathscr{0} \\ & \underset{\theta}{6} \end{aligned}$ |  | $\stackrel{\square}{\stackrel{( }{\text { N }}}$ | $\begin{aligned} & \text { 厄} \\ & \stackrel{\infty}{\mathrm{o}} \\ & \hline \end{aligned}$ |  | $\bar{\circ}$ | $\overline{\mathrm{f}}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N |  |  | $\begin{aligned} & \circ \\ & \stackrel{\circ}{\dot{O}} \\ & \stackrel{y}{0} \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \stackrel{\circ}{8} \end{aligned}$ | $\begin{aligned} & \text { O} \\ & \stackrel{0}{\sim} \\ & \underset{i}{0} \end{aligned}$ | $\begin{gathered} \underset{\sim}{\sim} \\ \underset{\sim}{2} \end{gathered}$ | $\begin{aligned} & \overline{+} \\ & \underset{\sim}{A} \\ & \underset{\sim}{7} \end{aligned}$ | $\begin{aligned} & \text { 见 } \\ & \stackrel{1}{n} \\ & \stackrel{\sim}{n} \end{aligned}$ | $\begin{aligned} & \hat{0} \\ & \stackrel{0}{0} \\ & \stackrel{\Gamma}{F} \end{aligned}$ | $\begin{aligned} & \underset{N}{N} \\ & \underset{\sim}{n} \\ & \stackrel{y}{n} \end{aligned}$ | $\begin{aligned} & \propto \\ & \stackrel{\circ}{\infty} \\ & \underset{\sim}{\circ} \\ & \stackrel{-}{2} \end{aligned}$ |  | $\stackrel{\circ}{0}$ $\stackrel{N}{\tilde{N}}$ $\underset{\sim}{~}$ | $\begin{aligned} & \stackrel{\circ}{\circ} \\ & \stackrel{y}{6} \\ & \stackrel{\rightharpoonup}{0} \end{aligned}$ | $\begin{aligned} & \text { O. } \\ & \stackrel{\circ}{\circ} \end{aligned}$ |  |  |  |
|  | $\underset{\sim}{\mathrm{N}}$ |  |  | $\begin{aligned} & \stackrel{0}{8} \\ & \stackrel{8}{8} \end{aligned}$ | $\begin{aligned} & \infty \\ & \infty \\ & \infty \\ & i n \end{aligned}$ | $\begin{aligned} & \stackrel{\infty}{\infty} \\ & \stackrel{\sim}{0} \\ & \stackrel{\sim}{0} \end{aligned}$ | $\begin{aligned} & \stackrel{\mathrm{O}}{\mathrm{~N}} \\ & \mathrm{~N} \end{aligned}$ | $\begin{aligned} & \text { No } \\ & \underset{\sim}{\dot{\sim}} \\ & \stackrel{\sim}{6} \end{aligned}$ | $\begin{aligned} & \mathscr{\infty} \\ & \infty \\ & \infty \\ & \stackrel{\infty}{\oplus} \end{aligned}$ | $\begin{aligned} & \overline{0} \\ & \infty \\ & \stackrel{\vdots}{\circ} \\ & \stackrel{-}{2} \end{aligned}$ |  | $\begin{aligned} & \tilde{N} \\ & \stackrel{\sim}{\overleftarrow{1}} \\ & \underset{\sim}{+} \end{aligned}$ |  |  | $\begin{aligned} & \text { m } \\ & 0 \\ & \substack{0 \\ 0 \\ 0} \end{aligned}$ | $\begin{aligned} & \infty \\ & \stackrel{\infty}{\circ} \\ & \stackrel{\text { H}}{\circ} \end{aligned}$ | $\begin{aligned} & \text { No } \\ & \stackrel{0}{0} \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { 囚 } \\ & \underset{\sim}{\mathrm{N}} \\ & \end{aligned}$ |  |
|  |  |  | $\stackrel{\square}{\infty}$ |  |  |  | $\begin{aligned} & \hline \hline \underset{\sim}{0} \\ & \underset{\sim}{\mathrm{~N}} \end{aligned}$ |  |  |  | $\begin{aligned} & \hline \hline \stackrel{O}{\varphi} \\ & \stackrel{e}{6} \end{aligned}$ | $\begin{aligned} & \hline \overline{\mathrm{m}} \\ & \stackrel{0}{0} \end{aligned}$ | $\begin{aligned} & \hline \hline \stackrel{N}{\mathrm{o}} \\ & \stackrel{\rightharpoonup}{0} \end{aligned}$ | $$ | $\begin{aligned} & \hline \hline \bar{G} \\ & \underline{\omega} \end{aligned}$ |  |  |  |  |
| Ј | $\stackrel{N}{N}$ |  |  |  |  |  | $\stackrel{\infty}{\stackrel{\infty}{\oplus}}$ | $\infty$ $\stackrel{\infty}{\infty}$ $\stackrel{\text { ® }}{-}$ - |  | $\begin{aligned} & \infty \\ & \infty \\ & \stackrel{0}{\infty} \\ & \underset{\sim}{\infty} \end{aligned}$ | $\begin{aligned} & \stackrel{\circ}{\circ} \\ & \stackrel{\circ}{\circ} \\ & \stackrel{\circ}{\infty} \end{aligned}$ | $\begin{aligned} & \stackrel{J}{\dot{\circ}} \\ & \underset{\infty}{\circ} \end{aligned}$ | $\stackrel{\circ}{\infty}$ | $\begin{aligned} & \text { 毋̀ } \\ & 0 \\ & \stackrel{6}{n} \end{aligned}$ | $\stackrel{\stackrel{\circ}{\circ}}{\stackrel{+}{\underset{\sim}{N}}}$ | $\begin{aligned} & \text { İ } \\ & \mathbf{\infty} \\ & \underset{\sim}{m} \end{aligned}$ |  |  |  |
|  | － |  |  |  |  |  |  | $\stackrel{+}{\dot{8}}$ |  | $\begin{aligned} & \infty \\ & \stackrel{0}{0} \\ & \stackrel{\rightharpoonup}{+} \\ & \dot{\circ} \end{aligned}$ | $\stackrel{\text { a }}{\stackrel{\circ}{\hat{\circ}}}$ | $\pm$ か． $\stackrel{0}{0}$ $\stackrel{-}{-}$ | $\underset{\sim}{q}$ | $\begin{aligned} & \underset{\sim}{\dot{j}} \\ & \underset{\sim}{q} \end{aligned}$ | $\begin{aligned} & \bar{m} \\ & \dot{.} \\ & \dot{\sim} \\ & \dot{子} \end{aligned}$ | $\begin{aligned} & \text { ๗} \\ & \underset{\sim}{\mathrm{N}} \end{aligned}$ |  |  |  |
|  |  | $\stackrel{\odot}{¢}$ | $\overline{\text { "ल్ల }}$ | $\begin{aligned} & \hline \hline \widetilde{\mathbb{\infty}} \\ & \stackrel{\rightharpoonup}{c} \end{aligned}$ | $$ |  |  | $\begin{aligned} & \hline \hline \stackrel{0}{0} \\ & \stackrel{+}{ \pm} \end{aligned}$ |  |  | $\begin{aligned} & \hline \hline \bar{\infty} \\ & \stackrel{e}{0} \\ & \end{aligned}$ |  |  | $\begin{aligned} & \hline \hline \overline{ल ్} \\ & \underset{\sim}{\sim} \end{aligned}$ |  | $\begin{aligned} & \hline \hline \overline{\sigma_{0}^{\prime}} \\ & \stackrel{\omega}{c} \end{aligned}$ |  |  |  |
| 咅 | $\stackrel{N}{N}$ |  | $\begin{aligned} & \text { N } \\ & \text { ल⿵冂 } \\ & \text { స̂ } \end{aligned}$ |  | $\stackrel{\substack{0 \\ \underset{~}{+}}}{ }$ |  |  |  |  |  | $\begin{aligned} & \text { 冃⿴囗⿱一一 } \\ & \stackrel{\sim}{7} \end{aligned}$ |  |  | $\stackrel{\circ}{\stackrel{\circ}{\dot{N}}}$ |  |  |  |  |  |
|  | $\stackrel{\Gamma}{\sim}$ |  | $\begin{aligned} & \underset{\sim}{\tilde{N}} \\ & \text { N} \\ & 0 \end{aligned}$ | $\begin{aligned} & \hat{0} \\ & \stackrel{0}{n} \\ & \stackrel{N}{N} \\ & \end{aligned}$ | $\begin{aligned} & \text { R } \\ & \stackrel{\sim}{N} \end{aligned}$ |  |  | $\begin{aligned} & \text { ®. } \\ & \stackrel{\infty}{\infty} \\ & \stackrel{\sim}{\infty} \\ & \end{aligned}$ |  |  | $\begin{aligned} & \infty \\ & \infty \\ & \infty \\ & \infty \\ & \infty \end{aligned}$ |  |  | J ̈ Ni |  | $\begin{aligned} & \text { さे } \\ & \stackrel{\rightharpoonup}{\oplus} \\ & \underset{\sim}{2} \end{aligned}$ | $\begin{aligned} & \underset{\sim}{\circ} \\ & \stackrel{\oplus}{\circ} \\ & \underset{\sim}{\sim} \end{aligned}$ |  |  |
|  |  |  | ¢ |  |  |  | $\begin{aligned} & \hline \hline \stackrel{\text { N}}{\mathrm{N}} \\ & \end{aligned}$ |  |  | $\begin{aligned} & \hline \hline \stackrel{\widehat{\circ}}{\substack{0}} \end{aligned}$ | $\begin{aligned} & \hline \hline \stackrel{O}{\dot{~}} \\ & \hline \end{aligned}$ |  |  | $\underset{\sim}{0}$ |  | N |  |  |  |
|  | $\stackrel{N}{N}$ |  |  |  |  |  | $\begin{aligned} & \infty \\ & \stackrel{0}{0} \\ & \stackrel{0}{0} \end{aligned}$ |  |  |  | $\begin{aligned} & \text { No } \\ & \stackrel{\text { N }}{\mathrm{N}} \end{aligned}$ |  | $\begin{aligned} & \stackrel{+}{0} \\ & \stackrel{\rightharpoonup}{0} \end{aligned}$ |  |  | $\begin{aligned} & \check{\circ} \\ & \stackrel{\circ}{\sigma} \end{aligned}$ |  |  |  |
|  | $\stackrel{\underset{\sim}{x}}{ }$ |  |  |  |  |  | $$ |  |  | $\frac{8}{\stackrel{8}{N}}$ | $\begin{aligned} & \stackrel{N}{\underset{\sim}{0}} \\ & \stackrel{\sim}{\sim} \end{aligned}$ |  | $\begin{aligned} & \text { గ్ } \\ & \stackrel{\circ}{\circ} \end{aligned}$ |  |  | $\begin{aligned} & \widehat{ल} \\ & \underset{e}{e} \end{aligned}$ | $\begin{aligned} & \underset{\sim}{\underset{O}{0}} \\ & \stackrel{0}{0} \\ & \underset{\sim}{*} \end{aligned}$ |  |  |
|  |  |  |  | $\begin{aligned} & \hline \hline \frac{0}{n} \\ & \stackrel{6}{c} \end{aligned}$ | $\stackrel{0}{\omega}$ | $\begin{aligned} & \hline \frac{\pi}{N} \\ & \end{aligned}$ | $\begin{aligned} & \hline \underline{\infty} \\ & \stackrel{\infty}{\dot{\omega}} \\ & \end{aligned}$ | $\begin{aligned} & \hline \hline \underset{\infty}{\underset{\sim}{c}} \end{aligned}$ | $\underset{\sim}{N}$ | $\begin{aligned} & \hline \bar{\circ} \\ & \stackrel{\oplus}{\dot{o}} \end{aligned}$ | $\begin{aligned} & \hline \hline \stackrel{0}{0} \\ & \stackrel{6}{6} \end{aligned}$ | $\overline{\stackrel{N}{N}}$ | $\begin{aligned} & \hline 0 \ddot{\infty} \\ & \underset{\sim}{\sim} \end{aligned}$ | $\underset{\sim}{\bar{子}}$ | $\begin{aligned} & \hline \hline \stackrel{\circ}{\circ} \\ & \stackrel{6}{6} \end{aligned}$ | $\begin{aligned} & \hline \hline \stackrel{\circ}{\circ} \\ & \text { ¢ } \end{aligned}$ | $\begin{aligned} & \hline \hline \underset{\sim}{\text { O}} \\ & \underset{\sim}{c} \end{aligned}$ |  |  |
|  |  |  |  | $\begin{aligned} & \stackrel{8}{0} \\ & \stackrel{0}{0} \\ & \stackrel{0}{0} \\ & \underset{\sim}{0} \end{aligned}$ | $\begin{aligned} & \text { P} \\ & \stackrel{+}{8} \end{aligned}$ | $\begin{aligned} & \text { R⿸⿻一丿口} \\ & \stackrel{0}{N} \\ & \end{aligned}$ | $\stackrel{\leftrightarrow}{\sim}$ | $\circ$ $\stackrel{\circ}{\circ}$ $\stackrel{\circ}{\circ}$ $\stackrel{\rightharpoonup}{-}$ |  |  | $\begin{aligned} & \text { N} \\ & \underset{\sim}{\omega} \\ & \underset{\sim}{\sim} \end{aligned}$ | $\begin{aligned} & \stackrel{\infty}{\infty} \\ & \stackrel{+}{\infty} \\ & \stackrel{\infty}{\sim} \end{aligned}$ |  | $\begin{aligned} & \text { No } \\ & \underset{\sim}{\dot{\sim}} \\ & \underset{\infty}{+} \end{aligned}$ | $\begin{aligned} & \text { ๗} \\ & \dot{\omega} \\ & \dot{\omega} \\ & \stackrel{\rightharpoonup}{\omega} \end{aligned}$ |  |  | $\begin{aligned} & \stackrel{0}{0} \\ & \stackrel{0}{0} \\ & \underset{\sim}{2} \end{aligned}$ |  |
|  |  |  |  | $\begin{aligned} & \stackrel{\circ}{\mathrm{N}} \\ & \underset{\sim}{\mathrm{~N}} \\ & \underset{\sim}{\infty} \end{aligned}$ | ¢ | $\begin{aligned} & \infty \\ & \underset{\sim}{\infty} \\ & \underset{\sim}{\omega} \\ & \text { in } \end{aligned}$ | $\stackrel{\infty}{\infty}$ | $\begin{aligned} & \text { N్} \\ & \dot{\otimes} \\ & \stackrel{\circ}{0} \\ & \stackrel{\sim}{2} \end{aligned}$ |  | $\begin{aligned} & \dot{O} \\ & \dot{.} \\ & \dot{\circ} \\ & \dot{\sigma} \end{aligned}$ |  | $\begin{aligned} & \stackrel{\circ}{0} \\ & \stackrel{\sim}{ल} \\ & \underset{\sim}{N} \end{aligned}$ |  | $\infty$ <br> $\infty$ <br> $\infty$ <br> $\infty$ <br> $\infty$ | $\begin{aligned} & \dot{\circ} \\ & \stackrel{1}{0} \\ & \dot{\oplus} \end{aligned}$ | $\begin{aligned} & \underset{\sim}{\infty} \\ & \infty \\ & \underset{\sim}{\infty} \\ & \underset{\sim}{n} \end{aligned}$ |  |  |  |
|  |  |  |  |  |  | ＝ | E | $\stackrel{\text { k }}{\substack{\text { l }}}$ | $\stackrel{̣}{\geq}$ | ＞ | ＞ | 三 | 三 | $\underline{\square}$ | $\times$ | $\bar{\chi}$ | $\overline{\bar{x}}$ |  | $\sum_{\substack{\text { c }}}^{\substack{\text { c }}}$ |

P－Preliminary
Table 3. Municipal Fish Production by Region, Philippines, April - June 2011-2012 ${ }^{\text {P }}$

| Region | Municipal |  | \% Change | Marine |  | \% Change | Inland |  | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | 2012 |  | 2011 | 2012 |  | 2011 | 2012 |  |
|  | -metric tons- |  |  | -metric tons- |  |  | -metric tons- |  |  |
| PHILIPPINES | 364,943.36 | 337,674.93 | (7.47) | 324,348.04 | 296,083.19 | (8.71) | 40,595.32 | 41,591.74 | 2.45 |
| NCR | 1,419.87 | 1,805.08 | 27.13 | 1,419.87 | 1,805.08 | 27.13 |  |  |  |
| CAR | 245.68 | 258.90 | 5.38 |  |  |  | 245.68 | 258.90 | 5.38 |
| I | 10,445.07 | 9,066.73 | (13.20) | 9,983.33 | 8,350.96 | (16.35) | 461.74 | 715.77 | 55.02 |
| II | 10,003.94 | 8,637.71 | (13.66) | 7,462.61 | 6,085.13 | (18.46) | 2,541.33 | 2,552.58 | 0.44 |
| III | 9,196.68 | 8,670.49 | (5.72) | 7,153.99 | 6,617.43 | (7.50) | 2,042.69 | 2,053.06 | 0.51 |
| IV-A | 27,774.87 | 28,012.11 | 0.85 | 9,559.38 | 9,724.97 | 1.73 | 18,215.49 | 18,287.14 | 0.39 |
| IV-B | 66,692.42 | 49,694.72 | (25.49) | 66,474.72 | 49,478.62 | (25.57) | 217.70 | 216.10 | (0.73) |
| V | 42,245.95 | 41,304.96 | (2.23) | 40,559.58 | 39,551.90 | (2.48) | 1,686.37 | 1,753.06 | 3.95 |
| VI | 43,728.72 | 43,716.14 | (0.03) | 42,559.84 | 42,120.86 | (1.03) | 1,168.88 | 1,595.28 | 36.48 |
| VII | 14,910.15 | 14,857.59 | (0.35) | 14,859.91 | 14,813.66 | (0.31) | 50.24 | 43.93 | (12.56) |
| VIII | 30,351.82 | 28,133.20 | (7.31) | 30,095.21 | 27,900.06 | (7.29) | 256.61 | 233.14 | (9.15) |
| IX | 32,484.48 | 31,848.96 | (1.96) | 32,235.02 | 31,617.96 | (1.91) | 249.46 | 231.00 | (7.40) |
| X | 11,639.57 | 11,480.95 | (1.36) | 10,611.67 | 10,554.08 | (0.54) | 1,027.90 | 926.87 | (9.83) |
| XI | 7,981.18 | 6,446.76 | (19.23) | 7,946.87 | 6,389.45 | (19.60) | 34.31 | 57.31 | 67.04 |
| XII | 11,288.85 | 11,509.89 | 1.96 | 5,668.23 | 5,720.31 | 0.92 | 5,620.62 | 5,789.58 | 3.01 |
| Caraga | 17,400.66 | 15,830.01 | (9.03) | 16,335.40 | 14,773.08 | (9.56) | 1,065.26 | 1,056.93 | (0.78) |
| ARMM | 27,133.45 | 26,400.73 | (2.70) | 21,422.41 | 20,579.64 | (3.93) | 5,711.04 | 5,821.09 | 1.93 |

P-Preliminary
Table 4. Aquaculture Production by Type of Aquafarm, by Environment and by Region, Philippines, April - June 2011-2012 ${ }^{\text {P }}$


P- Preliminary

Table 5. Aquaculture: Milkfish Production of Top Producing Provinces by Culture Environment and Type of Aquafarm, Philippines, April - June 2011-2012 ${ }^{\text {P }}$

| Culture Environment/ <br> Type of Aquafarm/Province | 2011 | 2012 | \% Change |
| :---: | :---: | :---: | :---: |
|  | - metric tons- |  |  |
| PHILIPPINES | 93,419.09 | 98,633.01 | 5.58 |
| Brackishwater Fishpond | 67,130.56 | 67,978.89 | 1.26 |
| Capiz | 9,985.57 | 10,558.74 | 5.74 |
| lloilo | 10,966.53 | 9,393.80 | (14.34) |
| Bulacan | 6,590.73 | 7,429.73 | 12.73 |
| Negros Occidental | 4,747.58 | 5,122.64 | 7.90 |
| Pangasinan | 5,586.15 | 4,773.37 | (14.55) |
| Pampanga | 4,428.46 | 4,169.84 | (5.84) |
| Other Provinces | 24,825.53 | 26,530.77 | 6.87 |
| Brackishwater Fish pen | 152.94 | 169.31 | 10.70 |
| La Union | 133.89 | 141.89 | 5.97 |
| Aklan | 16.63 | 25.66 | 54.30 |
| Other Provinces | 2.42 | 1.75 | (27.56) |
| Brackishwater Fish cage | 330.23 | 305.38 | (7.53) |
| Agusan del Norte | 101.11 | 128.88 | 27.46 |
| La Union | 173.62 | 121.53 | (30.00) |
| Other Provinces | 55.50 | 54.97 | (0.96) |
| Freshwater Fish pen | 6,307.85 | 6,359.35 | 0.82 |
| Rizal | 4,090.98 | 4,138.44 | 1.16 |
| Sultan Kudarat | 1,935.46 | 1,941.27 | 0.30 |
| Maguindanao | 172.84 | 168.52 | (2.50) |
| Other Provinces* | 108.57 | 111.12 | 2.35 |
| Freshwater Fish cage | 1,650.82 | 2,008.30 | 21.65 |
| Batangas | 1,633.83 | 1,991.96 | 21.92 |
| Other Provinces | 16.99 | 16.34 | (3.83) |
| Marine Fish pen | 4,283.35 | 5,536.53 | 29.26 |
| Pangasinan | 2,985.95 | 4,314.99 | 44.51 |
| Davao del Sur | 873.25 | 882.60 | 1.07 |
| lloilo | 124.39 | 146.08 | 17.43 |
| Other Provinces | 299.76 | 192.87 | (35.66) |
| Marine Fish cage | 13,563.34 | 16,275.25 | 19.99 |
| Pangasinan | 6,867.84 | 9,614.97 | 40.00 |
| Zambales | 1,831.69 | 1,968.15 | 7.45 |
| Davao Sur | 998.88 | 1,383.95 | 38.55 |
| Samar | 1,036.64 | 910.00 | (12.22) |
| Other Provinces | 2,828.29 | 2,398.18 | (15.21) |

[^0]Table 6. Aquaculture: Tilapia Production of Top Producing Provinces, by Culture Environment and Type of Aquafarm, Philippines,

April - June 2011-2012 ${ }^{\text {P }}$

| Culture Environment/ <br> Type of Aquafarm/Province | 2011 | 2012 | \% Change |
| :---: | :---: | :---: | :---: |
| - metric tons- |  |  |  |
| PHILIPPINES | 64,006.35 | 65,835.70 | 2.86 |
| Brackishwater Fishpond | 5,886.10 | 6,235.25 | 5.93 |
| Pampanga | 2,390.71 | 2,304.89 | (3.59) |
| Cagayan | 1,019.48 | 1,021.3178 | 0.18 |
| Pangasinan | 106.82 | 755.64 | 607.42 |
| Bulacan | 626.03 | 668.17 | 6.73 |
| llocos Sur | 369.28 | 379.66 | 2.81 |
| Other provinces | 1,373.78 | 1,105.58 | (19.52) |
| Brackishwater FishPen/Cage | 37.24 | 38.70 | 3.93 |
| Cagayan | 27.47 | 32.10 | 16.87 |
| Ilocos Norte | 2.03 | 3.01 | 48.31 |
| llocos Sur | 1.41 | 1.58 | 12.19 |
| La Union | 5.91 | 1.40 | (76.26) |
| Other provinces | 0.42 | 0.60 | 43.20 |
| Freshwater Fishpond | 36,157.40 | 36,295.03 | 0.38 |
| Pampanga | 25,210.89 | 24,764.66 | (1.77) |
| Pangasinan | 3,362.26 | 3,017.29 | (10.26) |
| Tarlac | 1,048.82 | 1,387.48 | 32.29 |
| Isabela | 1,492.20 | 1,208.89 | (18.99) |
| Davao del Sur | 229.48 | 976.11 | 325.35 |
| Other provinces | 4,813.75 | 4,940.59 | 2.63 |
| Freshwater Fish cage | 16,419.07 | 17,728.26 | 7.97 |
| Batangas | 9,604.68 | 11,050.25 | 15.05 |
| Laguna | 2,922.28 | 2,880.20 | (1.44) |
| Camarines Sur | 1,698.02 | 1,613.12 | (5.00) |
| Albay | 1,392.09 | 1,396.96 | 0.35 |
| South Cotabato | 318.50 | 281.62 | (11.58) |
| Other provinces | 483.50 | 506.12 | 4.68 |
| Freshwater Fish pen | 5,476.81 | 5,444.13 | (0.60) |
| Rizal | 3,433.45 | 3,407.02 | (0.77) |
| Sultan Kudarat | 1,395.80 | 1,401.80 | 0.43 |
| Maguindanao | 467.17 | 453.58 | (2.91) |
| Laguna | 165.42 | 162.97 | (1.48) |
| Davao del Norte | 12.04 | 15.77 | 30.98 |
| Other provinces | 2.93 | 3.00 | 2.31 |
| Small Farm Reservoir | 29.43 | 93.59 | 218.05 |
| Pampanga | - | 58.55 |  |
| Quirino | 11.76 | 12.90 | 9.74 |
| Isabela | 6.97 | 7.50 | 7.49 |
| North Cotabato | 4.50 | 4.54 | 0.80 |
| Nueva Ecija | - | 4.43 |  |
| Other provinces | 6.20 | 5.67 | (8.41) |
| Marine Fishcage | 0.30 | 0.75 | 150.00 |
| Bohol | 0.30 | 0.75 | 150.00 |

P- Preliminary

Table 7. Aquaculture: Production by Species of Top Producing Provinces by Culture Environment and Type of Aquafarm, Philippines, April - June 2011-2012 ${ }^{\text {P }}$

| Species/Province | 2011 | 2012 | \% Change |
| :---: | :---: | :---: | :---: |
| -metric tons- |  |  |  |
| Tiger Prawn | 16,125.17 | 14,460.29 | (10.32) |
| Brackishwater Fishpond |  |  |  |
| Pampanga | 5,292.42 | 5,032.57 | (4.91) |
| Bulacan | 4,867.91 | 4,937.52 | 1.43 |
| Zamboanga Sibugay | 2,450.39 | 987.02 | (59.72) |
| Lanao del Norte | 882.17 | 975.94 | 10.63 |
| Zamboanga del Sur | 821.59 | 795.30 | (3.20) |
| Other Provinces | 1,810.69 | 1,731.94 | (4.35) |
| Mud Crab | 3,570.60 | 3,478.85 | (2.57) |
| Brackishwater Fishpond |  |  |  |
| Lanao del Norte | 1,515.78 | 1,521.69 | 0.39 |
| Pampanga | 1,506.17 | 1,422.43 | (5.56) |
| Camarines Sur | 86.94 | 93.09 | 7.07 |
| Misamis Occidental | 87.02 | 88.41 | 1.60 |
| Camarines Norte | 75.82 | 80.00 | 5.51 |
| Other Provinces | 298.87 | 273.23 | (8.58) |
| Carp | 3,440.02 | 3,537.42 | 2.83 |
| Freshwater Fishpond | 79.69 | 94.99 | 19.20 |
| Lanao del Norte | 31.81 | 28.55 | (10.24) |
| Tarlac | 29.16 | 51.68 | 77.24 |
| Pampanga | 6.69 | 6.42 | (4.12) |
| Other Provinces | 12.03 | 8.35 | (30.62) |
| Freshwater Fish Pen/Cage | 3,359.72 | 3,440.68 | 2.41 |
| Rizal | 3,108.90 | 3,194.62 | 2.76 |
| Laguna | 241.96 | 239.59 | (0.98) |
| Metro Manila | 6.65 | 5.71 | (14.07) |
| Other Provinces | 2.21 | 0.75 | (66.13) |
| Small Farm Reservoir | 0.61 | 1.75 | 187.91 |
| Pampanga |  | 1.00 |  |
| North Cotabato | 0.40 | 0.50 | 25.00 |
| Other Provinces | 0.21 | 0.26 | 23.93 |
| Catfish | 624.07 | 785.99 | 25.95 |
| Freshwater Fishpond | 621.60 | 783.20 | 26.00 |
| Bulacan | 106.44 | 150.17 | 41.09 |
| Iloilo | 103.60 | 106.20 | 2.51 |
| Tarlac | 16.82 | 88.42 | 425.62 |
| Davao City | 70.80 | 78.92 | 11.47 |
| Nueva Ecija | 42.78 | 67.16 | 57.00 |
| Other Provinces | 281.16 | 292.33 | 3.97 |
| Small Farm Reservoir | 2.47 | 2.79 | 12.96 |
| Isabela | 1.00 | 0.87 | (13.00) |
| North Cotabato | 0.60 | 0.63 | 5.00 |
| Quirino | 0.37 | 0.43 | 16.22 |
| Cagayan | 0.36 | 0.41 | 13.89 |
| Pampanga |  | 0.39 |  |
| Guimaras | 0.12 | 0.04 | (66.67) |
| Bohol | 0.02 | 0.03 | 50.00 |

P - Preliminary

Table 8. Aquaculture: Mariculture Production by Species and by Province, Philippines, April-June 2011-2012 ${ }^{\text {P }}$

| Species/Province | 2011 | 2012 | \% Change |
| :---: | :---: | :---: | :---: |
| -metric tons- |  |  |  |
| Seaweed | 394,922.72 | 383,694.82 | (2.84) |
| Palawan | 86,011.61 | 71,376.20 | (17.02) |
| Tawi-Tawi | 63,734.64 | 60,350.33 | (5.31) |
| Sulu | 46,068.96 | 44,599.36 | (3.19) |
| Zamboanga Sibugay | 31,035.35 | 36,143.77 | 16.46 |
| Bohol | 33,839.79 | 31,322.24 | (7.44) |
| Other Provinces | 134,232.38 | 139,902.93 | 4.22 |
| Oyster | 9,222.43 | 7,309.87 | (20.74) |
| Bulacan | 2,034.59 | 2,234.80 | 9.84 |
| Capiz | 1,458.21 | 1,521.50 | 4.34 |
| Cavite | 885.36 | 1,276.87 | 44.22 |
| Negros Occidental | 682.28 | 885.67 | 29.81 |
| lloilo | 451.01 | 322.38 | (28.52) |
| Other Provinces | 3,710.97 | 1,068.64 | (71.20) |
| Mussel | 9,575.00 | 11,127.31 | 16.21 |
| Cavite | 5,142.11 | 7,085.82 | 37.80 |
| Capiz | 2,598.69 | 2,680.29 | 3.14 |
| Samar | 555.73 | 450.51 | (18.93) |
| Bataan | 545.48 | 319.10 | (41.50) |
| Negros Occidental | 399.73 | 204.16 | (48.93) |
| Other Provinces | 333.26 | 387.42 | 16.25 |

[^1]Table 9. Producer, Wholesale and Retail Prices and Price Margins of Selected Aquaculture Fish Species, Philippines, April - June 2010-2012 ${ }^{\text {P }}$

| Species | Producer |  |  | $\begin{gathered} \text { \% } \\ \text { Change } \end{gathered}$ | Wholesale* |  |  | $\begin{gathered} \text { \% } \\ \text { Change } \end{gathered}$ | Retail |  |  | $\begin{gathered} \text { \% } \\ \text { Change } \end{gathered}$ | Price Margin |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 | 2011 | 2012 |  | 2010 | 2011 | 2012 |  | 2010 | 2011 | 2012 |  | Producer - Wholesale |  |  | Producer - Retail |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
|  | - peso per kilogram - |  |  |  | - peso per kilogram - |  |  |  | - peso per kilogram - |  |  |  |  |  |  |  |  |  |
| Milkfish | 79.32 | 79.87 | 90.11 | 12.82 | 93.58 | 90.88 | 104.24 | 14.70 | 114.34 | 111.90 | 125.44 | 12.10 | 14.26 | 11.01 | 14.13 | 35.02 | 32.03 | 35.33 |
| Tilapia | 61.52 | 61.68 | 69.83 | 13.21 | 64.48 | 72.32 | 73.78 | 2.02 | 84.70 | 89.81 | 94.72 | 5.47 | 2.96 | 10.64 | 3.95 | 23.18 | 28.13 | 24.89 |
| Tiger Prawn | 385.02 | 395.65 | 401.60 | 1.50 | 391.33 | 391.95 | 376.22 | (4.01) | 433.61 | 450.40 | 459.68 | 2.06 | 6.31 | 3.70 | 25.38 | 48.59 | 54.75 | 58.08 |
| Roundscad | 47.99 | 54.04 | 58.01 | 7.35 | 61.03 | 73.95 | 76.98 | 4.10 | 83.15 | 96.69 | 103.66 | 7.21 | 13.04 | 19.91 | 18.97 | 35.16 | 42.65 | 45.65 |
| Frigate Tuna | 57.85 | 61.87 | 65.70 | 6.19 | 75.62 | 87.70 | 87.39 | (0.35) | 90.74 | 101.99 | 107.60 | 5.50 | 17.77 | 25.83 | 21.69 | 32.89 | 40.12 | 41.90 |
| Indian Mackerel | 55.89 | 58.23 | 62.99 | 8.17 | 84.43 | 86.87 | 99.29 | 14.30 | 103.82 | 109.69 | 115.79 | 5.56 | 28.54 | 28.64 | 36.30 | 47.93 | 51.46 | 52.80 |

[^2]
[^0]:    * included data on freshwater fishpond

    P - Preliminary

[^1]:    P-Preliminary

[^2]:    * BAS AMSAD data
    $P$ - Preliminary

