

# Philippines - Costs and Returns Survey of Milkfish Production 2006

**Bureau of Agricultural Statistics**

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## Overview

### Identification

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ID NUMBER  
PHL-BAS-CRSMP-2006-v3.0

### Version

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VERSION DESCRIPTION  
v3.0 - Raw data edited at the Central Office, anonymized dataset for public distribution.

PRODUCTION DATE  
2010-06-10

### Overview

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#### ABSTRACT

The profitability of producing milkfish is one of the primary concerns among planners and policy makers in setting up goals and strategies for the development of fisheries. Likewise, this is the concern of agribusiness players who are interested to venture in milkfish farming.

The survey aimed to generate updated data on the levels and structure of costs and returns of milkfish production. Specifically, it was conducted to determine the production cost structures; indicators of profitability such as gross and net returns, returns above cash costs, net profit - cost ratio, etc.; usage of materials and labor inputs; and other related socio-economic variables.

KIND OF DATA  
Sample survey data [ssd]

UNITS OF ANALYSIS  
Milkfish pond operators and milkfish ponds with harvests during the reference period as the units of analysis.

### Scope

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#### NOTES

The survey focused on generating costs and returns structure of milkfish production.

The scope of the survey included the following:

**CHARACTERISTICS OF THE FARMERS/OPERATORS** such as age, sex, educational attainment, farming experience and main occupation.

**FARM CHARACTERISTICS** include physical and harvested area of fishponds and tenurial status.

**FARM INVESTMENTS** cover data on inventory of farm investments used, year and cost of acquisition, repairs and improvement cost and estimated life and usage in the focus pond.

**MATERIAL INPUTS** contain data on quantity and cost of planting materials, fertilizers, mulching materials, insecticides, herbicides/weedicides, fungicides and other chemicals.

**LABOR INPUTS** cover data on labor utilization (in terms of mandays) and labor cost by type of farming activity, by source of labor and by sex and food cost incurred.

OTHER PRODUCTION COSTS include data on cash and non-cash payments for land tax, land lease/rental, rental value of owned land, rentals of machine, animals and tools, fuel and oil, transport costs of inputs, irrigation fee, electricity, interest payment on crop loans, storage cost and other production costs.

PRODUCTION AND DISPOSITION contain data on volume of milkfish production and its disposition in terms of sold, harvesters' share, threshers' share, other laborers' share, landowners' share, lease/rental, for home consumption, given away, used for seeds, wastage and other purposes.

BUYER INFORMATION contain data on the major buyer of milkfish.

PROBLEMS ENCOUNTERED include problems affecting production and marketing of milkfish.

ACCESS TO CREDIT contains data on the percentage of operator who availed loans, and sources of loans.

OTHER INFORMATION include access to extension services, future plans of fishpond operators and their recommendations to improve milkfish industry.

## Coverage

### GEOGRAPHIC COVERAGE

The survey covered the top four (4) milkfish producing provinces namely: Pangasinan, Bulacan, Capiz and Iloilo.

### GEOGRAPHIC UNIT

Province was the lowest level of geographic aggregation covered by the data.

### UNIVERSE

The survey covered all milkfish ponds with harvests during the last completed production cycle in 2006 as the reference period.

## Producers and Sponsors

### PRIMARY INVESTIGATOR(S)

Name	Affiliation
Bureau of Agricultural Statistics	Department of Agriculture

### FUNDING

Name	Abbreviation	Role
Department of Agriculture	DA	Funding Source

### OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
National Statistical Coordination Board		Survey clearance

## Metadata Production

### METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Eduardo Sanguyo	EBS	Bureau of Agricultural Statistics (BAS)	Documenter of the study
Ana M. Eusebio	AME	Bureau of Agricultural Statistics (BAS)	Reviewer of the study
Maura S. Lizarondo	MSL	Bureau of Agricultural Statistics (BAS)	Reviewer of the study

DATE OF METADATA PRODUCTION  
2010-06-10

DDI DOCUMENT VERSION  
Version 1.0 (June 2010)

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DDI-PHL-BAS-CRSMP-2006-v1.0

## Sampling

### Sampling Procedure

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The survey covered fishpond operators in the top four (4) milkfish producing provinces in the country namely: Pangasinan, Bulacan, Iloilo and Capiz. The domain of the study was the province, with the last completed production cycle in 2006 as the reference period.

The lists of milkfish producing barangays by province prepared by the concerned BAS Provincial Operations Centers (POCs) were used as the sampling frame for this study. The lists contained data on the area devoted to milkfish production and number of milkfish pond operators by barangay as of 2006. These data were obtained from BAS-BFAR lists of aquafarms, updated Barangay Screening Survey (BSS) data, existing POC lists and the local government units.

A two-stage sampling design was employed with the barangay as the primary sampling unit and the fishpond operator as the secondary and ultimate sampling unit. The barangays were drawn using systematic sampling from an ordered list of barangays with at least five (5) milkfish pond operators. Systematic sampling was used so that both large and small farm operators in the province in terms of milkfish production would be represented in the sample. On the other hand, sample operators were identified using snowball approach during data collection. During the search for sample operators, a set of screening questions was applied to see to it that the samples satisfy the following criteria:

1. must be engaged in milkfish culture in fishpond, and
2. must have harvested milkfish in 2006

The total sample size was 100 fishpond operators per province, equally allocated to 20 sample barangays. Following was the distribution of sample fishpond operators by province.

Pangasinan (100) : All monoculture

Bulacan (100) : 69 monoculture and 31 polyculture

Capiz (99) : 94 monoculture and 5 polyculture

Iloilo (100) : 95 monoculture and 5 polyculture

All four provinces (399) : 358 monoculture and 41 polyculture

In Capiz, one sample did not satisfy the second survey criterion, i.e. there was no reported production.

The data attached in the Data Set include only monoculture.

### Response Rate

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Response rate of 99.8 percent

### Weighting

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Weighting is not applicable

# Questionnaires

## Overview

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A structured questionnaire written in English was used. It was designed in tabular form and other parts were in question type format. The data items/variables in the questionnaire were based on the previous (2001) questionnaires with some modifications and additions.

The questionnaire was pre-tested and reviewed before its implementation.

The questionnaire consisted of 9 pages covering 13 blocks as follows:

A. GEOGRAPHIC INFORMATION includes the location of the farm such as the name of the region, province, city/municipality and barangay.

B. SAMPLE IDENTIFICATION such as the name, age, sex, highest educational attainment, main occupation and number of years engaged in milkfish production, name of the respondent and relationship of respondent to owner/operator.

C. AQUAFARM CHARACTERISTICS include the name of aquafarm, physical area of aquafarm, number of ponds and its size, tenurial status, aquafarm environment and culture method adopted.

D. FARM INVESTMENTS cover data on inventory of farm investments used, year and cost of acquisition, repairs and improvement cost, estimated life and percent of use in the focus pond.

E. MATERIAL INPUTS contain data on the quantity and cost of stocking materials, fertilizers, lime, pesticides, disease prevention and pollution control and other chemicals.

F. LABOR INPUTS cover data on labor utilization (in terms of mandays) and labor cost by type of farming activity, by source of labor and by sex and food cost incurred.

G. OTHER PRODUCTION COSTS include data on cash and non-cash payments for land tax, salaries and wages, lease/rental, rental value of owned land, rentals of machine and tools, fuel and oil, transport costs of inputs, license/permits, electricity, and interest payment on loans.

H. PRODUCTION AND DISPOSITION contain data on volume of milkfish production and its disposition in terms of sold, harvesters' share, caretakers' share, other laborers' share, landowners' share, lease/rental, for home consumption, given away, and other dispositions.

I. BUYER INFORMATION contain data on the major buyer of milkfish.

J. PROBLEMS ENCOUNTERED include problems affecting production and marketing of milkfish.

K. ACCESS TO CREDIT covers data on the amount and source of loan, and interest rate per annum.

L. OTHER INFORMATION include data on the membership in fishery related association, access to extension services, future plans of fishpond operators and their recommendations to improve milkfish production

M. INTERVIEW/SURVEY PARTICULARS contain the name and signature of data collector, field supervisor/editor and PASO and date accomplished.

## Data Collection

### Data Collection Dates

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Start	End	Cycle
2006-11-15	2006-11-30	N/A

### Time Periods

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Start	End	Cycle
2006-01-01		last completed production cycle

### Data Collection Mode

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Face-to-face [f2f]

### Data Collection Notes

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The questionnaire on CRS of milkfish production was pretested on October 10-12, 2006 in Bulacan. A manual of operations was prepared together with the questionnaire. After the pre-test, the questionnaire and the manual of operations were reviewed and finalized. Prior to the field data collection, training was conducted to ensure that the concepts and procedures were correctly understood. The first level training was attended by selected BAS Central Office (CO) staff. They became trainers at the BAS- Provincial Operations Center (POC) participated by PASO, field staffs and hired data collectors. Part of the field training was the conduct of mock interview, dry-run exercises, discussion of problems and issues and editing procedures encountered during the dry-run.

The BAS CO Staff who served as the trainers supervised the initial data collection activity of the data collectors together with the POC staff. Upon return to the BAS Central Office, the BAS CO trainers prepared and submitted travel reports on the activities done in the field (province) as well as the issues/problems encountered and their recommendations.

The field data collection was undertaken by hired data collectors through personal interview of the sample pond owner/operator who passed the requirements of the survey using the set of screening questions. The interview was conducted in the local dialect of the province. Before the data collection, courtesy call to the barangay officials was done to explain the nature and purpose of the survey and to seek permission for the conduct of such activity in the barangay.

Problems and issues encountered during field data collection were reported to the BAS CO Staff or management for their information and appropriate action. The POC also submitted to the Central Office a narrative report regarding the conduct of the survey.

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## Data Collectors

Name	Abbreviation	Affiliation
Bureau of Agricultural Statistics	BAS	Department of Agriculture

## Supervision

Close supervision of field enumerators was done by the POC regular staff during data collection. As immediate supervisors, they saw to it that the survey operation ran smoothly and within the target schedule. Spot checking of the data collectors and back checking of their work were also part of the field supervision to ensure that errors or incompleteness committed in the survey operation were checked and corrected immediately.

The regular POC staff were also responsible for reviewing and editing the accomplished questionnaires. These were done to check the acceptability, consistency and completeness of the information recorded in the questionnaire.

The Provincial Agricultural Statistics Officers (PASOs) and Assistant Provincial Agricultural Statistics Officers (APASOs) acted as overall supervisors in the provinces. They also conducted spot checking and backchecking, review of completed and edited questionnaires before submitting to the Central Office. A report on field data collection was prepared and sent by the POC to the Central Office.

The Regional Agricultural Statistics Officer (RASO) is responsible for the monitoring and supervision of the survey operations in all the provinces within the region. The Statistical Operations Coordination Division (SOCD) at the Central Office monitored and coordinated the field operations.

## Data Processing

### Data Editing

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Manual editing was initially done at the Provincial Operations Center during and after data collection using the CRS editing guidelines prepared by the Central Office. The edited questionnaires were again checked at the Central Office. Coding and encoding were likewise done at the Central Office.

### Other Processing

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Data entry, processing and generation of data tables were done at the BAS Central Office using the MS Excel Application. The file contains spreadsheets/worksheets with built-in formulas capable of performing complicated mathematical calculations such as totals, averages and percentages and other information. Data tables were generated by this software using the hyperlink.

## Data Appraisal

### **Other forms of Data Appraisal**

A series of reviews was done to assess the quality of the data in terms of reliability and acceptability. A comparison with the results of past surveys on input usage, labor utilization, production cost and return structure of milkfish was made.