# Philippines - Barangay Agricultural Profiling Survey - Cordillera Administrative Region 2006

# **Bureau of Agricultural Statistics**

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### Overview

### Identification

ID NUMBER PHL-BAS-BAPSCAR-2006-v1.0

### Version

VERSION DESCRIPTION

v1.0 is the barangay level data edited at the provincial level, not anonymized, for

internal use.

PRODUCTION DATE 2006-08-01

### **Overview**

#### **ABSTRACT**

Basic and current data on agriculture are usually generated through national censuses and surveys. However, data from these sources are too aggregated. Thus, the available data series are deemed inadequate to meet the needs of planners and policy makers of local government units, particularly the cities/municipalities and barangays. What they require are more disaggregated information in analyzing the agricultural situation in their localities.

In response to the felt need for comprehensive, timely and reliable data at the municipal and barangay levels of disaggregation, the Bureau of Agricultural Statistics (BAS) has conceptualized an activity entitled "Barangay Agricultural Profiling Survey (BAPS)". The BAPS is an improved version of the Barangay Screening Survey (BSS), which was undertaken by the Bureau from 1997 to 1999. The BAPS has been designed to collect information on the basic structure of agriculture and fishery at the barangay level. The output of this activity would be effective inputs to the government in the identification, design and implementation of appropriate development programs and in identification of target beneficiaries. In particular, a very important application of the output of this inquiry would be in the identification of areas suitable for the production and marketing of priority commodities in a province.

The general objective of the BAPS is to provide the policymakers and other data users with comprehensive agriculture profiles at the sub-national levels. Its specific objectives are: to establish the database on the basic characteristics of agriculture; to assist in the identification of areas suitable for the production and marketing of priority commodities in the province; to provide a common set of updated basic data for use in agricultural development planning at the municipal and barangay levels in support to government programs, particularly those of the Department of Agriculture; and to provide the basis for the updating/construction of new sampling frames for agricultural and fishery surveys.

The data items selected by BAPS include the following: basic barangay characterististics, information on agricultural crops, irrigation, livestock and poultry, fishery, agricultural practices, marketing, farm machineries/implements, and other information such as associations providing support to farmers, projects implemented in the barangay, major and other sources of livelihood and women's participation in agriculture/fishery related activities.

KIND OF DATA
Census/enumeration data [cen]

UNITS OF ANALYSIS Barangays

# Scope

NOTES

The Barangay Agricultural Profiling Survey (BAPS) - Cordillera Administrative Region (CAR) covered all the major commodities of agriculture and fishery with data items as follows:

<b>Basic Barangay</b>	characterististics:
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- General geographic terrain
- Land area
- Land use
- Population
- Vulnerability of the barangay to natural calamities
- Number of farming, non-farming and fishing households.

### Agricultural Crops Information:

- Cropping calendar, area and yield
- List of plantations

### Information on Irrigation:

- Sources of irrigation water
- Potential, service and actual area of irrigation facilities
- Terms of payment of irrigation fee

### Livestock and Poultry Information:

- Inventory of livestock and poultry at backyard and commercial farms;
- List of commercial livestock farms

### Fishery Information:

- Number of motorized and non-motorized fishing boats
- List of commercial fishing boat operators
- Major fishing gears used
- List of landing centers
- List of aquafarm operators by type of environment, type of farm and farm area

### **Agricultural Practices:**

- Modern agricultural practices;

### Marketing Information:

- Availability of market/trading area for agricultural/fishery commodities
- Major commodities traded and their sources and destinations;

### Farm Machineries / Other Implements:

- Inventory of farm machineries

Infrastructure and Services:

- Access to post harvest and other facilities
- Access to basic community services;

Other information:

- Associations providing support to farmers
- Projects implemented in the barangay
- Major and other sources of livelihood
- Women's participation in agriculture/fishery related activities.

# Coverage

GEOGRAPHIC COVERAGE

Regional coverage, all barangays in CAR

**GEOGRAPHIC UNIT** 

Barangay Level

### **UNIVERSE**

The survey covered all barangays with areas devoted to agricultural activities such as farming, raising of animals and fishing. Barangays without any farming or fishing activities but with agro-fishery facilities/establishments were likewise enumerated.

# **Producers and Sponsors**

PRIMARY INVESTIGATOR(S)

Name		Affiliation	
	Bureau of Agricultural Statistics	Department of Agriculture	

### **FUNDING**

Name	Abbreviation	Role
Department of Agriculture - Regional Field Unit , Cordillera Admninistrative Region	DA-RFU, CAR	Funding Source

# **Metadata Production**

### METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Demosthenes N. Mistal	DNM	BAS	Documenter
Romeo S. Recide	RSR	BAS	Reviewer
Maura S. Lizarondo	MSL	BAS	Reviewer
Amelia P. Caparas	APC	BAS	Reviewer

DATE OF METADATA PRODUCTION

2009-08-31

### **DDI DOCUMENT VERSION**

Version 1.0 August 2009. This is the first version of this documentation. This is also an output of the Toolkit Training and Data Documentation Initiatives (DDI) Production Workshop held in Ciudad Christia on August 31, 2009 to September 4, 2009 and DDI Quality Review workshop held in Tagaytay Country Hotel on February 1-5, 2010.

DDI DOCUMENT ID

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

# Sampling

Sampling Procedure
Not applicable.
Deviations from Sample Design
Not applicable.
Response Rate
Not applicable.
Weighting
Not applicable

# Questionnaires

### **Overview**

Structured questionnaire was used in the conduct of BAPS. The questionnaire was administered in each barangay to collect various data on basic barangay characteristics including general geographic terrain, land area, land use, population, vulnerability of the barangay to natural calamities, number of farming, non-farming and fishing households. Data on agricultural crops, irrigation, livestock and poultry, fishery, agricultural practices, marketing,farm machineries / other Implements, infrastructure and services, and other information such as associations providing support to farmers, projects implemented in the barangay, major and other sources of livelihood and women's participation in agriculture/fishery related activities were also collected.

The questionnaire was developed in English language.

# **Data Collection**

### **Data Collection Dates**

Start	End	Cycle
2006-09-01	2006-09-30	N/A

### **Time Periods**

Start	End	Cycle
2005-01-01		Selected items (Population, etc.)
2003-01-01		Usual Cropping Calendar, and Yield per Hectare
2004-01-01		Items on calamity and agricultural development programs/project
2006-09-01		Inventory Data

### **Data Collection Mode**

Focus Group [foc] / Face-to-Face, KIs

### **Data Collection Notes**

#### Pre-Test

The pre-test for the survey took place from May 10, 2006 - May 14, 2006 conducted by members of the project team and selected field staff.

### **Training**

Three levels of training was conducted for this activity. The first level was done at the BAS Central Office in Quezon City on August 15, 2006. The training consisted of three parts, namely:

- Part 1 Discussion of the objectives, scope, methods and concepts used in the survey
- Part 2 Discussion of manual editing and coding procedures
- Part 3 Training and hands-on exercises on electronic data processing (data entry, data cleaning and table generation).

The first level training was participated in by the members of the project team and all those who were involved in the field operations. Orientation as to the concepts used in the survey was also included in Part 1. Inputs to Part 2 and 3 included the accomplished questionnaires used in the pre-test and accomplished questionnaires containing hypothetical data. The conduct of these training components allowed the project team as well as the processing team to test the procedures (both manual and electronic) and contributed to the improvement of the system.

The second level training was conducted at the Regional Operations Center (ROC) on August 22, 2006 - August 24, 2006 with the first level training participants serving as resource persons in the discussion of objectives, scope, methods and concepts used in the survey. For this level, participants include the Provincial Agricultural Statistics Officer (PASO) and BAS ROC staff.

The third level training was conducted on August 28 to August 31, 2006. The PASO and POC staff conducted the third level training in their respective municipalities of assignment and they served as provincial trainors and supervisors to discuss the objectives, scope, methods and concepts used in the survey. Participants in the training were all the Contractual Data Collectors (CDCs) for the survey.

### Field Data Collection

The domain of the study is the barangay. The reference period is calendar year 2005, except for some items, e.g. on calamity, which required different reference period depending on the type of information to be collected. Data gathering was

undertaken by contractual data collectors through personal interview of qualified respondents, the key informants (KIs) in the barangay and through a focus group discussion (FGD). The latter also served as a validating mechanism for the data collected.

A KI is a person who may be a resident of the barangay or municipality and who has a considerable degree of knowledge about the barangay and can provide reliable information on at least one area of concern. Among the KIs who may be interviewed for this activity are the following:

- · Barangay Chairman
- · Barangay Official (preferably the one in charge of agriculture)
- · Municipal Agriculture Officer (MAO)
- · Agricultural Technician (AT)
- · Municipal Planning and Development Officer (MPDO)
- · Cooperative Officer
- · Market Administrator
- · Farmer Leader
- · Trader
- · Municipal Veterinarian
- · Municipal/Barangay Health Worker/Officer
- · Fisherman
- · Fish Broker
- · Landing Center Manager
- · Irrigators' Association Officer
- · Rural Women's Club Officer

Only one questionnaire was accomplished for each barangay. There was no fixed number of respondents to be interviewed. The number was dependent on the quality and completeness of information provided by KIs. The data collector should see to it that the right persons are interviewed for each major group of items in the questionnaire.

This approach was properly handled in the design of the BAPS questionnaire. At the beginning of each block was a space for three respondents from which the desired data for that block were to be obtained. This information served as a good input during field supervision, and data validation since the source of information will be easily traced.

Administrative records can serve as reference of the KI in answering some items in the questionnaire. In most cases, however, a single response to an item is not enough to put high confidence in the quality of information. Thus, the data collector should interview more than one KI so he/she can capture the information that will best approximate the situation in the barangay. He/She will write the answers of these respondents at the back of the questionnaire and summarize them later on by taking either the average or the mode, depending on which of the two will yield a more realistic data.

Focus group discussion immediately followed after the completion of the questionnaire. In this approach, meetings with the target KIs were set by the data collector and field supervisor with the assistance of the Barangay Chairman or other officials. The objective of the discussion was to validate and firm up the collected information about the barangay. This ensured that all the collected data represented the best estimate of the basic characteristics of the barangay and were acceptable to most, if not all, the KIs.

The list of all barangays taken from the Philippine Standard Geographic Classification (PSGC) were used in the BAPS. This was to ensure that none of the barangays in the province was left out during data collection. The PSGC is a listing of all municipalities and barangays in the country with their corresponding geographic codes being used in the Philippine Statistical System (PSS).

# **Questionnaires**

Structured questionnaire was used in the conduct of BAPS. The questionnaire was administered in each barangay to collect various data on basic barangay characteristics including general geographic terrain, land area, land use, population, vulnerability of the barangay to natural calamities, number of farming, non-farming and fishing households. Data on agricultural crops, irrigation, livestock and poultry, fishery, agricultural practices, marketing,farm machineries / other Implements, infrastructure and services, and other information such as associations providing support to farmers, projects implemented in the barangay, major and other sources of livelihood and women's participation in agriculture/fishery related activities were also collected.

The questionnaire was developed in English language.

### **Data Collectors**

Name	Abbreviation	Affiliation
Bureau of Agricultural Statistics	BAS	Department of Agriculture

# **Supervision**

The data collectors were closely supervised by the BAS POC staff. To the extent possible, spot checking of all data collectors was done by the supervisors. This was to make sure that errors committed during initial interviews were corrected right on the spot and not carried over to subsequent interviews. The supervisor referred to the spot-checking guidelines prepared for the purpose. Aside from spot checks, follow-up meetings with the data collectors were set by the field supervisor to assess the progress and quality of their work and discussed with them the problems they encountered in data gathering. He/she must see to it that all gray areas were clarified and all the problems encountered as well as the corresponding actions taken during the data collection were documented.

# **Data Processing**

# **Data Editing**

### Field Data Processing

Data processing was done at the POC in two stages: manual editing and electronic data processing.

Manual editing involved item-by-item checks on the consistency and completeness of the data and data ranges. This was the initial stage where data were judged as acceptable or not based on the situation in the barangay. The supervisors did the manual editing of returns, although the data collector also saw to it that the information collected were complete and acceptable before the questionnaires were submitted to him/her. A set of manual editing procedure facilitated the completion of this activity. The manual editing and coding guidelines document was provided as an external resource.

Electronic data processing was done at the Regional Operations Center (ROC) and Provincial Operations Center (POC) with the Regional Processing Officer (RPO) and Provincial Processing Officer (PPO) on top of the activity. This involved data coding, encoding, electronic data cleaning and generation of summary statistics. Before the data were submitted for electronic processing, the supervisor saw to it that these data have passed the consistency requirements set in the editing guidelines. Errors that were overlooked in the manual editing were captured in electronic data cleaning. The electronic data processing document was provided as an external resource.

Two types of outputs were generated after the electronic processing stage: the raw data and the summary statistics. Both were used as inputs in the data validation stage of the survey. For this reason, it was recommended that the raw data generated should be in Excel format so that the staff involved can access, examine and correct them as necessary.

The data processing software used was Integrated Micro-Computer Processing System (IMPS) which was developed by the United States Census Bureau.

# **Data Appraisal**

# **Estimates of Sampling Error**

Not applicable

# Other forms of Data Appraisal

**Data Validation** 

Multi-level data validation was intended to ensure that the results of this survey are acceptable, reliable and usable. Technical working groups (TWGs) at the municipal and provincial levels were created. The objectives were to thoroughly scrutinize the data and to allow the members of the group to evaluate the consistency of data. Inputs in validation included the raw data, survey questionnaires and summary statistics. Validation materials were prepared by the POC staff who were also responsible in facilitating and documenting the validation process.

The municipal TWG were composed of the BAS POC staff covering the municipality, the MAO, MPDO, Municipal Agriculture and Fishery Council (MAFC) Officer, Farm Cluster Leaders and the President of the Association of the Barangay Chairmen (ABC). The Municipal TWG was responsible in reviewing the results of the survey at the municipal level with barangay disaggregation. They ensured that the changes made during the municipal data validation are reflected in the raw data and in the questionnaires. This further highlighted the importance of the raw data being readily converted to Excel format right after table generation at the POC.

The PASO, the Provincial Agriculturist (PA), Provincial Agriculture and Fishery Council (PAFC) Officer, Provincial Planning and Development Officer (PPDO) to be supported by staff of the Research and Evaluation Division, and the President of the Provincial League of the MPDOs composed the Provincial TWG. The TWG at the provincial level was responsible in examining the results of the survey using the consolidated municipal results. They sent feedback to all municipalities on the analysis of data generated. As in the case of the municipal data validation, it was also important that all changes made in the data as a result of the validation process must be reflected at once to the municipal results and eventually to the raw data and the questionnaires.

On-site validation at each level was conducted by the TWG, especially if there were still unsettled issues and disagreements in the data after the review process.