

Pilot Report

One of the preparatory activities for the 2002 Census of Agriculture and Fisheries (CAF 2002) is the conduct of a series of pretests, and on a larger scale, a pilot census.

A pilot census is generally conducted a year before the actual census operation. Its necessity emanates from the complexities of census operation. Furthermore, a pilot census is the final test of the census programme. It is designed to test the procedures and systems to be used in the census, and to detect and correct any weakness in the programme before the actual operation is conducted.

For the CAF 2002, it was designed and undertaken with the results and recent developments learned from eight (8) pretests previously conducted since the year 2000. Activities relevant to census taking such as field operation and coordination, manual and machine processing, quick count and public relations will be covered. More important, the results of the pilot census will provide basis for corrective measures in the inefficiencies of established and existing procedures prior to actual census operation.

1. OBJECTIVES

The main objective of the pilot census is to conduct a full-scale census, in all aspects and operations, in selected areas where operational procedures will be tested and improved, if necessary.

On the other hand, the specific objectives are:

- a. To measure workload standards for data collection, manual and machine processing for both household and establishment based operations;
- b. To apply the field operation plans to be used for the actual census and identify those that need to be revised;
- c. To study the feasibility of using ballpen during enumeration as opposed to the use of pencil;
- d. To test the data processing options to be adopted for the actual census;
- e. To assess the effectiveness of administrative and other census forms; and
- f. To determine problems, issues and concerns that may arise during the actual census operations.

2. TIMETABLE OF ACTIVITIES

The following are the distinct but interrelated activities involved in the conduct of pilot census:

Activities	Start	End
Recruitment of Statistical Researchers	Feb. 11, 2002	Feb. 15, 2002
Training		
a. 1 st Level (Task Force)	Feb. 18, 2002	Feb. 22, 2002
b. 2 nd Level (Regional/Provincial Staff and Hired SRs)	Feb. 26, 2002	March 2, 2002
Enumeration	March 4, 2002	March 14, 2002
Supervision	March 4, 2002	March 14, 2002

Activities	Start	End
Processing of pilot census		
a. Training for Manual Editing	March 13, 2002	March 15, 2002
b. Manual Editing	March 18, 2002	March 27, 2002
c. Machine Processing	April 1, 2002	April 23, 2002
Pilot Census Report	April 15, 2002	May 17, 2002

3. FORMS/MANUALS USED

The following are the forms used to list households, gather data for agricultural, fishing and aquafarm operators, and monitor the progress of the entire enumeration as well as the processing of the questionnaires and forms:

- CAF Form 1 – List of Households, Agricultural and Fishing Operators
- CAF Form 2 – Agriculture Questionnaire
- CAF Form 2A – Agricultural Establishment Questionnaire
- CAF Form 3 – Municipal and Commercial Fishing Questionnaire
- CAF Form 4 – Aquaculture Questionnaire
- CAF Form 6 – Appointment Slip
- CAF Form 7 – EN's Daily Accomplishment Report
- CAF Form 8 – Certification of Barangay Chairperson
- CAF Form 9 – Worksheet for Agriculture
- CAF Form 10 – Worksheet for Fisheries
- CAF Form 13 – Reinterview/ Spotcheck/Observation Report
- CAF Form 22 – Provincial Processing Receipt and Control Form
- CAF Form 24 – Record of Problems Encountered
- CAF Form 25 – Verification Slip for CAF Forms 2, 2A, 3 & 4
- CAF Form 26 – Verification Slip for CAF Forms 9 & 10
- CAF Form 27 – Processor's Daily Accomplishment Report
- CAF Form 28 – Supervisor's Accomplishment Report
- CAF Form 29 – Provincial Processing Staff Weekly Accomplishment Report

On the other hand, the following are the forms used for administrative purposes:

- CAF Form 14 – Transmittal/Receipt Form
- CAF Form 16 - CAF Forms 2,3 and 4 Bundle Cover
- CAF Form 18 – Certificate of Work Completed
- CAF Form 19 – Certificate of Appearance
- CAF Form 20 – Certificate of Travel Completed

Lastly, these are the reference materials used during the training and the actual enumeration:

- Enumerator's Manual
- Supervisor's Manual
- Training Guide
- Workbook
- Manual Processing Guidelines at PPS 2002
- Codebook

4. BUDGET

A total of about P1.6 million was spent for the pilot census. The breakdown of budget for the different activities of the pilot census is as follows:

Activities	Amount
Printing of Manuals	117,645
Printing of Questionnaires	138,760
Printing of Additional Questionnaires	32,670
Printing of Administrative and Census Forms	6,520
Training of Enumerators	435,585
Enumeration	565,150

Activities	Amount
Supervision	66,650
Training of Processors	80,810
Manual Processing	80,550
Machine Training	7,500
Machine Processing	2,720
Supplies and Materials	18,860
Shipment and Freight	25,000
Total	1,578,420

5. SELECTION OF SAMPLE BARANGAYS

Proper representation of the three major groups of islands, namely, Luzon, Visayas and Mindanao was made during the pilot census. The areas identified for the 2002 Census of Agriculture and Fisheries (CAF) Pilot Census were Benguet, Southern Leyte and Zamboanga del Norte. These provinces were selected mainly on the basis of the activities engaged in by majority of the households, i.e., agricultural activities (Benguet), fishing activities (Southern Leyte) and both agricultural and fishing activities (Zamboanga del Norte). In 1991, 90 percent of households in Benguet were engaged in agricultural activities and 65 percent in Zamboanga del Norte.

The Provincial Statistics Officer (PSO) in each of the above-mentioned provinces was requested to select a sample municipality using the same criteria. The selected city/municipalities are Atok in Benguet, Macrohon in Southern Leyte, and Dapitan City in Zamboanga del Norte.

The selection of sample barangays in these municipalities utilized the following schemes:

a. Agriculture

- All barangays in a municipality were grouped into two strata as follows:
 - (i) all barangays covered in 1991 CAF were classified in Stratum 1; and
 - (ii) all other barangays (Stratum 2).
- In Stratum 1, the barangay list was arranged in descending order of total farm area (TFA). In Stratum 2, the information from the Barangay Screening Survey (BSS) of the Bureau of Agricultural Statistics (BAS) was used as ordering variable. A special case was that of Dapitan City where the agricultural area based on the submission of the field office was utilized for Bgy. San Pedro. This was done because the BSS result seems inconsistent, i.e., TFAs of other areas adjacent to this barangay are larger relative to that given for this barangay.
- Within each stratum, the barangay with the highest TFA was automatically part of the sample (certainty barangay).
- Fifty (50) percent of the remaining barangays were chosen systematically from each stratum.

b. Fisheries

- All barangays in a municipality were grouped into two strata as follows:
 - (i) all coastal barangays were classified in Stratum 1; and
 - (ii) non-coastal barangays (Stratum 2).
- Within each stratum, barangays were arranged according to the descending number of persons/establishments issued permit to operate fishpond, fishcage or fishpen. Barangays that do not have persons/establishments issued such permit were arranged according to ascending order of population based on Census 2000.
- Within each stratum, barangays with highest number of persons/establishments issued permit to operate fishpond, fishcage or fishpen were taken as samples.

Frame 8.1 List of Sample Barangays by Area of Pilot Census

Atok, Benguet

Agriculture

Paoay
(replaced by Topdac)
Caliking
Pasdong
Poblacion
Naguey

Macrohon, Southern Leyte

Overlap	Agriculture	Fisheries
Mohon	Sindangan	Ichon
Flordeliz	Santo Rosario	Aguinaldo
Upper Villa Jacinta	Bagong Silang	San Joaquin
Molopolo	Buscayan	Santa Cruz
Upper Ichon	Amparo	(Poblacion)
Guadalupe	San Vicente	Danao
Cambaro	(Upper San Roque)	Ilihan
Salvador	Lower Villa Jacinta	Laray
(Mangyang)	San Isidro	

Dapitan City, Zamboanga del Norte

Overlap	Agriculture	Fisheries
Polo	Ilaya	Baylimango
Napo	Potungan	Sulangon
Maria Cristina	Sulangon	San Francisco
Sicayab-bocana	Tamion	Ba-ao
Aliguay	Cawa-cawa	Canlucani
Tag-olo	(Poblacion)	Potol (Poblacion)
Oyan	Banbanan	Linabo
Silinog	San Vicente	(Poblacion)
Oro	Maria Uray	Dampalan
Antipolo	Diwa-an	Bagting
Santa Cruz	San Nicolas	(Poblacion)
(Poblacion)	Opao	Owaon
Aseniero	Carang	Larayan
San Vicente	Guimputlan	Barcelona
	Dawo (Poblacion)	

- 50 percent of the remaining barangays were chosen systematically from each stratum.

6. RECRUITMENT AND HIRING

a. Enumeration

The conduct of the pilot census for the 2002 Census of Agriculture and Fisheries (CAF 2002) requires hundreds of personnel to perform activities such as listing, enumeration and processing. The Provincial Statistics Officer was responsible for the recruitment and hiring of enumerators. To assist them, they were given guidelines and criteria as bases for recruitment. Written examinations and interviews were administered. The criteria for recruitment of enumerators were as follows:

- a. Must meet the minimum education qualification standards, preferably college graduate, if not, completed at least second year college;
- b. Not more than 45 years old;
- c. Physically and mentally fit;
- d. Resident of the municipality, if not of the barangay, so as to be familiar with the place of assignment;
- e. Know the dialect spoken in the area of assignment;
- f. Must pass the written examination and personal interview;
- g. Preferably with experience in census/survey undertaking;
- h. With legible handwriting;

- i. With good moral character;
- j. With pleasing personality and ability to deal with the public tactfully; and
- k. Willing to render services related to all other census taking activities.

In Southern Leyte, local officials had endorsed applicants for the pilot census during the coordination meetings with them.

For this undertaking, there were about one hundred forty-one (141) enumerators hired from the respective pilot provinces to enumerate all households from the sample barangays. On the other hand, twenty-nine (29) team supervisors and four (4) census area supervisors from the field offices of the Bureau of Agricultural Statistics, Municipal Agriculture Office and National Statistics Office were required to supervise the activity.

The number was estimated based on the output rate of 12 households per day. However, this output was increased in sample barangays where there are few agricultural and fishing operators. Number of ENs was reduced in this case. Moreover, for every five (5) enumerators, there was one (1) team supervisor and for every ten (10) team supervisors, there was one (1) census area supervisor.

Frame 8.2 Required Number of Enumerators and Supervisors for the CAF 2002 Pilot Census

Participants	Benguet	Southern Leyte	Zamboanga del Norte
ENs (Hired)	18	40	83
TSSs	4	8	17
CAS	1	1	2

b. Processing

The enumerators during the pilot census were hired as processors and verifiers for the manual and machine processing. Their performance during enumeration was the main basis for hiring them.

Frame 8.3 Number of Processors and Verifiers for the CAF 2002 Pilot Census

Participants	Benguet	Southern Leyte	Zamboanga del Norte
Processors	3	10	11
Verifiers	2	5	6

every two (2) processors was assigned.

The number of required processors and verifiers depends on the total number of operators interviewed during enumeration and the output rate of 35 questionnaires per day. Moreover, one (1) verifier for

During this phase, a total of twenty-four (24) processors and thirteen (13) verifiers were hired from the pilot areas to process and verify the questionnaires.

7. COORDINATION AND INFORMATION/PUBLICITY CAMPAIGN

COORDINATION

Coordination with the local officials and concerned agencies in this undertaking was done prior to the training. Among others, recruitment and information campaign were given attention during coordination. In Southern Leyte, a short program was organized prior to the start of the training with the mayor of the municipality of Macrohon as the guest speaker.

INFORMATION/PUBLICITY CAMPAIGN

In general, PSOs coordinated with the mayor of the pilot areas for the conduct of the CAF 2002 Pilot as part of the information campaign. In turn, these mayors relayed such information to barangay officials. On the other hand, these barangay officials informed their constituents regarding the matter.

Furthermore, NSO-Benguet had a Press Release regarding the conduct of the pilot census publicized in a local newspaper called The Midland Courier in March 2002.

8. RECOMMENDATIONS FROM THE FIELD OFFICES

In general, the field offices had recommended conducting an extensive information, education and communication (IEC) campaign regarding CAF 2002 prior to its actual operation.

Specifically, the following were recommendations to make CAF 2002 a success:

- Municipal/City Census Coordination Board should be organized/established six months prior to the conduct of the census;
- Coordination with concerned government and private agencies to campaign CAF 2002 in their fora, symposium, training, seminar, workshop and convention;
- Posters and banners of CAF 2002 should be placed in strategic places in the municipality;
- Flyers, primers and brochures translated in different dialects should be distributed to barangay officials, establishments, institutions and especially to farmers and fisher folks;
- Campaign of CAF 2002 on national and local television, radio and major and local newspapers should be made; and
- Prominent personalities and high-ranking officials may be asked to endorse CAF 2002.

9. PRINTING, ALLOCATION AND SHIPMENT OF FORMS

Preparation for the printing of pilot census forms and manuals started December 2001. The quantity of manuals printed was estimated based on the number of field personnel and supervisors involved including trainers and a reserve of 20 percent.

On the other hand, the number of forms printed was based on the projected number of households for 2002 and the estimated percentage of agricultural and fishing operators for each municipality, with an additional 15 percent of the forms aside from the reserve of 20 percent. The additional 15 percent provided allowance for the use of more than one questionnaire per operator or per household, that is, the operator has more than six (6) parcels or household members, more than 22 permanent crops, etc; or the household has more than one operator.

FORMS AND MANUALS PRINTED

The questionnaires/forms and manuals were ready for printing by January 2002, except for the Training Guide, Workbook and Manual Processing Guidelines at PPS 2002, which were readied in mid-February 2002.

The printing of administrative forms and some manuals was done at the NSO Central Office (CO). Printing of the basic questionnaires and Enumerator's Manual was contracted to APO Production Unit, Inc. (APO).

a. Questionnaires/Enumeration Forms

The basic questionnaires, CAF Forms 1, 2, 3 and 4 were given extra attention in printing since these will be processed using for Intelligent Character Recognition (ICR) data capture system. This required a certain density of paper and a serial number as control measures.

However, there was not enough time to print serial number in all the forms, thus, only the first page of each of CAF Forms 2, 3 and 4 has serial number and none in CAF Form 1.

Below are the numbers of CAF Forms printed.

Item	Quantity
CAF Form 1 – List of Households, Agricultural and Fishing Operators	1,500
CAF Form 2 – Agriculture Questionnaire	9,340
CAF Form 2A – Agricultural Establishment Questionnaire	1
CAF Form 3 – Municipal and Commercial Fishing Questionnaire	4,970
CAF Form 4 – Aquaculture Questionnaire	2,260

b. Field Reporting Forms

These are the forms used to monitor the progress of the entire enumeration as well as the processing of the questionnaires and forms. The number printed for each form is as follows:

Item	Quantity
CAF Form 6 – Appointment Slip	8,852
CAF Form 7 – EN's Daily Accomplishment Report	9,218
CAF Form 8 – Certification of Barangay Chairperson	9,706
CAF Form 9 – Worksheet for Agriculture	1,192
CAF Form 10 – Worksheet for Fisheries	1,094
CAF Form 13 – Reinterview/ Spotcheck/Observation Report	155
CAF Form 22 – Provincial Processing Receipt and Control Form	270
CAF Form 23 – Record of Missing Questionnaires	410
CAF Form 24 – Record of Problems Encountered	90
CAF Form 25 – Verification Slip for CAF Forms 2, 2A, 3 & 4	1,058
CAF Form 26 – Verification Slip for CAF Forms 9 & 10	207
CAF Form 27 – Processor's Daily Accomplishment Report	135
CAF Form 28 – Supervisor's Accomplishment Report	90
CAF Form 29 – Provincial Processing Staff Weekly Accomplishment Report	90

c. Instruction Manuals/Training Materials

These are the reference materials used during the training and the actual enumeration. These served as the enumerators' and supervisors' guide as they enumerate. The numbers of printed materials are listed below:

Item	Quantity
Enumerator's Manual	240
Supervisor's Manual	45
Training Guide	10
Workbook	215
Manual Processing Guidelines at PPS 2002	60
Codebook	75

d. Other CAF Forms

The remaining CAF Forms were used mainly for administrative purposes. These are as follows:

Item	Quantity
CAF Form 14 – Transmittal/Receipt Form	657
CAF Form 16 – CAF Forms 2,3 and 4 Bundle Cover	182
CAF Form 18 – Certificate of Work Completed	589
CAF Form 19 – Certificate of Appearance	1390
CAF Form 20 – Certificate of Travel Completed	635

PRINTING OF FORMS AND MANUALS

As mentioned, CAF Forms 1, 2, 3 and 4, and the Enumerator's Manual were contracted to APO. The original printing covered a cost of Php 256,404.50 for the questionnaires and the Enumerator's Manual, including the adjustments made for adding serial numbers, with the following terms and conditions found in the OFFER TO PRINT provided by the APO Production Unit, Inc.:

"NSO shall pay the contract price in full within thirty (30) days after complete delivery. Thereafter, client shall, in addition, pay interest at the rate of 25% per annum on whatever amount remains outstanding and unpaid to APO until full payment is effected".

The APO Production Unit, Inc. (APO), at its discretion may collect payment for the whole contract price or the balance thereof directly from the Department of Budget and Management, against the funds allocated to the NSO for the printing of the materials herein specified. NSO by these presents authorizes the Department of Budget and Management as it is hereby authorized to deduct from the budget of NSO, the total contract price or the balance thereof due to APO and directly pay and remit the same to APO.

APO shall not be responsible for loss of materials or for any delays in delivery due to fire, earthquakes, labor strike, civil disturbances, war, or non-availability of supplies and raw materials."

A Census Planning and Operations Division (CPOD) staff was assigned to supervise the printing at APO. She was asked to perform the following tasks:

- Ensure that the forms follow the prescribed paper size for each form. For Form 1, the actual size is 11 x 22 inches spread and for Forms 2, 3 and 4, a folded size of 11 x 11 inches.
- Ensure that print outs are not blurred and each serial number per type of form is unique.
- Check margins and ensure that the printed items are centered in the sheet.

The plan was that these would be done for every 500 questionnaires. However, APO personnel assured that the questionnaires and manual would be printed the way they appeared in the blueprint. After printing several copies of the questionnaires, the CPOD staff was allowed to inspect them. After which, printing was done continuously, i.e., no batch inspection was done.

The templates for CAF Forms 1, 2, 3 and 4, and the Enumerator's Manual were given to APO on February 14, 2002. The printed questionnaires and manuals were delivered by APO to CO on February 22, 2002. On March 13, 2002, the NSO requested for a reprint of CAF Form 2 from APO. A total of 4,500 copies were reprinted and delivered on March 22, 2002. These reprints amounted to Php 32,670.00.

Other CAF forms and manuals aside from the questionnaires and Enumerator's Manual were printed at the Facilities Operations and Management Section and at the Printing Unit of the CO.

SHIPMENT OF FORMS TO FIELD OFFICES

The first level training included participants from concerned NSO Regional and Provincial Offices. Hence, all pilot census materials were hand-carried by the Provincial Statistics Officer (PSO), Regional/Provincial Statistician and CO personnel to the respective provinces. The set of materials consisted of training materials for the second level training and materials for enumeration.

The following procedures in the shipment were followed:

- After allocating the materials needed for each province, the materials were carefully placed in boxes.
- Each shipment contained two copies of the Transmittal/Receipt Form (CAF Form 14) with all materials listed in the form.
- The PSOs were asked to receive the materials and sign CAF Form 14 to acknowledge receipt of the materials.

The following are the number and materials hand-carried to the pilot provinces:

Item	Quantity		
	Benguet	S. Leyte	Zambo. Del Norte
CAF Form 1 – List of Households, Agricultural and Fishing Operators	127	127	127
CAF Form 2 – Agriculture Questionnaire	1,800	2,820	4,705
CAF Form 3 – Municipal and Commercial Fishing Questionnaire	35	2,780	2,140
CAF Form 4 – Aquaculture Questionnaire	35	1,235	990
CAF Form 6 – Appointment Slip	1,308	2,842	5,888
CAF Form 7 – EN's Daily Accomplishment Report	450	82	2,039
CAF Form 8 – Certification of Barangay Chairperson	49	120	216
CAF Form 9 – Worksheet for Agriculture	242	386	558
CAF Form 10 – Worksheet for Fisheries	37	320	636
CAF Form 13 - Reinterview/Spotcheck/ Observation Report	36	37	57
CAF Form 14 – Transmittal/Receipt Form	85	187	360
CAF Form 16 – CAF Forms 2,3 and 4 Bundle Cover	12	12	13
CAF Form 18 – Certificate of Work Completed	12	12	13
CAF Form 19 – Certificate of Appearance	100	200	400
CAF Form 20 - Certificate of Travel Completed	92	180	363
CAF Form 22 – Provincial Processing Receipt and Control Form	26	90	140
CAF Form 23 – Record of Missing Questionnaires	36	136	218
CAF Form 24 – Record of Problems Encountered	30	30	30
CAF Form 25 – Verification Slip for CAF Forms 2, 2A, 3 & 4	124	433	496
CAF Form 26 – Verification Slip for CAF Forms 9 & 10	35	75	92
CAF Form 27 – Processor's Daily Accomplishment Report	20	51	56
CAF Form 28 – Supervisor's Accomplishment Report	30	30	30
CAF Form 29 – Provincial Processing Staff Weekly Accomplishment Report	30	30	30
Enumerator's Manual	35	65	129
Supervisor's Manual	9	12	22
Training Guide	2	2	2

Item	Quantity		
	Benguet	S. Leyte	Zambo. Del Norte
Workbook	37	62	114
Manual Processing Guidelines at PPS 2002	11	21	23
Codebook	12	27	36
Clipboard	23	48	96
Chalk (multicolored boxes of 12)	23	48	100
Envelope (w/ 4 ballpens)	31	56	109
ID Cards	31	56	109

During the course of the pilot census, the pilot provinces requested for additional CAF Forms. The following are the additional forms requested as well as the quantity and the requesting province.

Item	Requesting Province	Quantity	Date Shipped
CAF Form 1	Benguet	30	March 25, 2002
	Southern Leyte	100	March 4, 2002
	Zamboanga del Norte	550	March 4, 2002
CAF Form 2	Southern Leyte	500	Not shipped
	Zamboanga del Norte	4,000	March 25, 2002 (1000 copies only)
CAF Form 2A	Zamboanga del Norte	1	March 4, 2002
CAF Form 3	Zamboanga del Norte	50	Not shipped
CAF Form 4	Benguet	100	Excess of S. Leyte shipped on March 25, 2002

As mentioned earlier, 4,500 copies of CAF Form 2 were reprinted to accommodate the request of the pilot provinces: 500 copies by Southern Leyte and 4000 copies by Zamboanga del Norte. After printing the said quantity, however, NSO-Zamboanga del Norte informed CO that they only needed 1,000 additional copies out of the 4000 they earlier requested as they overestimated the quantity of forms to be transcribed. These were shipped on March 25, 2002.

CAF Forms 3 and 4 were not reprinted.

EXCESS/UNUSED CAF FORMS AND MANUALS

An inventory of the census forms, manuals and other materials after allocating showed that, in general, there were enough forms printed and materials purchased.

Excess CAF Forms

Most of the excess CAF forms are reserves. Below are the numbers of excess forms and materials.

Item	Quantity	Item	Quantity
CAF Form 1 – List of Households, Agricultural and Fishing Operators	440	CAF Form 18 – Certificate of Work Completed	552
Item	Quantity	Item	Quantity
CAF Form 2 – Agriculture Questionnaire (excess due to additional request made by Zamboanga del Norte)	3,004	CAF Form 19 – Certificate of Appearance	540
CAF Form 4 – Aquaculture Questionnaire	1	CAF Form 22 – Provincial Processing Receipt and Control Form	13

CAF Form 6 – Appointment Slip	122	CAF Form 23 – Record of Missing Questionnaires	16
CAF Form 8 – Certification of Barangay Chairperson	109	CAF Form 24 – Record of Problems Encountered	1
CAF Form 9 – Worksheet for Agriculture	5	CAF Form 25 – Verification Slip for CAF Forms 2, 2A, 3 & 4	28
CAF Form 10 – Worksheet for Fisheries	99	CAF Form 26 – Verification Slip for CAF Forms 9 & 10	33
CAF Form 13 – Reinterview/Spotcheck/Observation Report	25	CAF Form 27 – Processor's Daily Accomplishment Report	10
CAF Form 14 – Transmittal Receipt Form	25	CAF Form 28 – Supervisor's Accomplishment Report	2
CAF Form 16 - CAF Forms 2,3 and 4 Bundle Cover	145		

The excess CAF Forms 1, 2 and 4, are being used during processing, for instance, when there is a need to transcribe entries from forms that were torn, soiled, etc. and are not ICR-readable.

Excess Manuals And Materials

Like the CAF Forms, the census manuals and materials were printed in excess of the actual allocation. Below are the quantities of excess manuals and other census materials.

Item	Quantity
Enumerator's Manual	11
Training Guide	2
Workbook	1
Manual Processing Guidelines at PPS 2002	3
Clipboard	4
Envelope (w/ 4 ballpens)	32

Out of the 11 excess Enumerator's Manual, 10 are printing excess given by APO for free.

10. TRAINING AND ENUMERATION

FIRST LEVEL TRAINING

a. Participants

A total of 21 participants attended the 1st level training for the 2002 Census of Agriculture and Fisheries Pilot Census. Seven were from the NSO-Central Office (C. O.); two each from CAR, NSO-Region 8 and NSO-Region 9; five from the Bureau of Agricultural Statistics (BAS) and three from the Bureau of Fisheries and Aquatic Resources (BFAR).

NSO-C.O. personnel served as trainers while participants from the field offices were the trainees. On the other hand, those from BAS and BFAR acted as resource persons. Director Collado gave welcome remarks.

b. Date and Venue of Training

The 1st level training for the pilot census was conducted for 5 days from February 18 to 22, 2002 at the HSD-Lecture Room, NSO-Manila. The schedule of the training covered the various topics presented in the Enumerator's Manual as well as those found in the Supervisor's Manual.

SECOND LEVEL TRAINING

a. Participants

Participants of the second level training were the hired enumerators, the team supervisors (Agricultural Technicians in Benguet and Southern Leyte while hired in Zamboanga del Norte), the census area supervisors (concerned NSO Statistical Coordination Officers) and other staff of the NSO provincial offices (e.g., statisticians and concerned District Statistics Officers). Furthermore, personnel from the central and provincial offices of NSO, BFAR and BAS acted as trainers, resource persons and observers. The table below shows the distribution of participants per province.

Frame 8.4 Number of Participants by Designation and Province for the Second Level Training of CAF 2002 Pilot Census

Participants	Benguet	Southern Leyte	Zamboanga del Norte
ENs (Hired)	18	34	82
TSs	5	7	17
CAS	1	1	2
NSO/BAS/BFAR	5	6	6

b. Date and Training Venue

The training for the three provinces was conducted simultaneously on February 26, 2002 to March 2, 2002 at the NSO Benguet provincial office, municipality of Macrohon of Southern Leyte and Doña Concepcion Hall in Dipolog City of Zamboanga del Norte.

c. Training Techniques

During the training, some techniques were resorted to by the trainers in their respective provinces in order to be more efficient and effective. These were:

- For Southern Leyte: Actual field practice interview was conducted within the vicinity of the training venue. Afterwards, problems encountered were discussed. Pictures and other paraphernalia brought by the resource persons from BFAR and BAS were shown.
- For Benguet: In the absence of blown-up forms, transparencies (overhead projector) were used.
- For Benguet and Zamboanga del Norte: Mock interviews were conducted to familiarize the ENs with the flow of the questionnaires.
- For Benguet, Southern Leyte and Zamboanga del Norte: Bilingual approach was adopted. Trainers who knew how to speak the local dialect explained the concepts and instructions in the native tongue of the participants.

11. SUPERVISION

AREA OF ASSIGNMENT OF ENs, TS, CAS AND DSO

A total of 66 barangays were selected as samples for the pilot census. Enumerators were assigned to barangays based mainly on their residence and sex. In general, those who are residents of the sample barangays were assigned to enumerate those barangays. Barangays that are mountainous and not accessible were given as priority assignments to male enumerators.

Team Supervisors were assigned 4 – 7 enumerators on average. This was based on the location of the barangays from one another and number of households in the barangays. Furthermore, the CAS and the DSO were tasked to supervise the said barangays.

DATE AND ENUMERATION AREAS

The enumeration was conducted last March 4 – 14, 2002 in 66 barangays in the provinces of Benguet, Southern Leyte and Zamboanga del Norte. Among these barangays, 26 were sample barangays for agriculture and fisheries, 22 were sample barangays for agriculture and 18 were sample barangays for fisheries.

Frame 8.5 Number of Sample Barangays by Activity and Province for the CAF 2002 Pilot Census

Pilot Province	Overlap	Agriculture	Fisheries	Total
Benguet	5	-	-	5
Southern Leyte	8	8	7	23
Zamboanga del Norte	13	14	11	38
Total	26	22	18	66

OPERATIONAL STRATEGY

Due to a problem in barangay delineation in Southern Leyte, each enumerator was required to meet his/her TS at least thrice a week. The proximity of the barangays from one another, the availability of the barangay halls as the meeting venue and the working relationship of the ENs and TS allowed this set up. All TSs, on the other hand, agreed to meet with the CAS and DSO twice a week to discuss pertinent matters that affect the enumeration process.

12. PROCESSING

Data processing of the accomplished questionnaires is another major activity of a census taking. For the 2002 Census of Agriculture and Fisheries (CAF 2002), it consists of manual and machine data processing.

Manual data processing involves the verification of geographic identification and completeness of forms, document preparation and packaging of forms for transmission. Machine data processing, on the other hand, involves such operations as data entry/scanning of questionnaires, computer editing of entries for consistency of data items within and between records, imputation of missing entries and tabulation of data according to predetermined table formats.

For Southern Leyte and Zamboanga del Norte, manual processing of forms was done in their respective field offices while machine processing was done at the central office. For Benguet, however, manual processing was done in the provincial office and machine processing in the regional office.

TRAINING FOR MANUAL PROCESSING

a. Participants

There were thirty-two (32) processors hired from the three pilot provinces for the manual processing. Most of them were hired from the pool of enumerators during the census. Of these, ten (10) were selected as verifiers after two (2) days of actual editing and coding of census forms. The CAS and DSO during the enumeration were designated as supervisors for this activity.

Number of Participants by Designation and Province for the CAF 2002 Pilot Census

Participants	Benguet	Southern Leyte	Zamboanga del Norte
Processors	3	8	11
Verifiers	1	3	6
Supervisors	3	2	2

b. Date and Training Venue

The training for the manual processing was conducted for two (2) days within March 14 to 16, 2002 at the respective provincial offices of the three pilot provinces.

MANUAL PROCESSING

The duration for manual processing was at most nine (9) days starting March 18 to 27, 2002. Each processor had to comply with an output of 35 questionnaires per day. Entries in the accomplished forms were edited, coded and prepared for the machine processing.

QUICK COUNT

A quick count procedure, using CAF Form 9 (Worksheet for Agriculture) and CAF Form 10 (Worksheet for Fisheries), was administered in all three provinces. The procedure generated a preliminary count of agriculture and fishing operators as well as some of their characteristics.

The quick count program was designed to be user-friendly. This means that the program is easy to operate and the application is simple and straightforward. Furthermore, a Quick Count User's Manual was provided.

TRANSMITTAL OF FORMS TO THE CENTRAL OFFICE

The transmittal of forms from the provinces of Southern Leyte and Zamboanga del Norte to the central office for machine processing came on the second and third week of April 2002, respectively. The forms transmitted were CAF Forms 1, 2, 3, 4, 9 and 10. Administrative and processing forms as well as barangay maps were also transmitted.

MACHINE PROCESSING AT NSO-CAR

The training for the machine processing was held at the regional office of NSO-Cordillera Administrative Region (CAR) on April 3 to 5, 2002. NSO-C.O. personnel served as trainer and the regional staff of CAR attended as participants.

The use of Intelligent Character Recognition (ICR) was employed to process the accomplished questionnaires. To implement this, a Data Operations Center (DOC) was established. Equipment necessary for this operation was provided from the Data Capture Center (DCC) Pampanga, i.e., computer with UPS, Fujitsu Deskpower 5000 Workstation, scanner, Eyes and Hands for Forms (EHF) license, velocis license, CD writer and hub. The staff from the NSO-Information Resources Department set up these hardware requirements and installed the necessary systems.

In addition, there were questionnaires which were not verified or read by the machine:

CAF Form	No. of Questionnaires
2	1,364
3	5
4	55

13. ISSUES/OBSERVATIONS/PROBLEMS AND RECOMMENDATIONS/SOLUTIONS

Issues/Problems	Action/s Taken/Recommendation/s
ENUMERATION	
Local officials have endorsed applicants who have not undergone recruitment process.	These enumerators turned out to be less efficient. Their TSs had to supervise them very closely than other enumerators. During the actual census, recruitment process should be strictly enforced.

Issues/Problems	Action/s Taken/Recommendation/s
An enumerator backed out during the training in Southern Leyte. However, time constraint prevented the province from hiring a replacement.	<ul style="list-style-type: none"> Output per enumerator per day was adjusted. An allowance of 10% reserved enumerators should be included in the hiring for the actual census.
A ratio of 10 TS to 1 CAS in areas like Benguet posed difficulty in monitoring and coordination.	This ratio was standardized as a guide, however, it may be decreased accordingly.
A separate wage rate of P250/day instead of P225/day was clamored in Benguet due to topographical and accessibility considerations.	The wage rate is standardized for all censuses/surveys. They can claim additional travel expenses or per diem as applicable under existing guidelines and regulations.
PROCESSING	
There were no definite guidelines in hiring processors and verifiers.	<ul style="list-style-type: none"> Performance during enumeration formed the main basis for hiring processors and verifiers. A different set of guidelines and criteria for hiring processor and verifiers should be provided.
PRINTING, ALLOCATION AND SHIPPING	
<ul style="list-style-type: none"> Misallocation of forms, particularly the questionnaires. Insufficient number of forms delivered due to misallocation. Insufficient forms during the last week of the enumeration period. Excess in the forms reprinted due to incorrect assessment of field office on the extent of lacking forms. 	Review bases of allocation (estimated percentage of operators, percentage of reserves, etc.) and make appropriate corrections when allocating for the actual census.
Available boxes during packing were big, hence, when packed, weighed more than 15 kgs.	<ul style="list-style-type: none"> When allocating, keep in mind that one box should not weigh more than 15 kgs for easy handling of baggage, if forms will be hand-carried. Printer will ship the forms.
Issues/Problems	
Action/s Taken/Recommendation/s	
Late delivery of CAF Forms 1, 2, 3 and 4 as well as the Enumerator's Manual.	Earlier submission of final form templates to the printer.
<ul style="list-style-type: none"> Quality of paper used in the pilot census is different from that used in the pretests. Some prints of the serial number are not aligned and blurred. 	<ul style="list-style-type: none"> Proper monitoring of kind of paper and serial number alignment should be done. Quality should be tested to ICR technology before the full printing. Penalty should be imposed to printer not following the prescribed specifications.
Requests for additional CAF Forms were received only after the enumeration was completed.	Field Office should allocate the forms upon receipt to monitor shortages of forms and should report the shortage as early as possible.
Issues/Problems	
Action/s Taken/Recommendation/s	
Lack of CAF Forms 1, 2, 3 and 4 was a major problem that caused the delay in enumeration.	There should be sufficient and proper allocation.
1ST LEVEL TRAINING	
No written pilot plan was made	Memos and instructions to field offices to be consolidated to come up with an integrated plan
A participant from Region 9 (PSO Rebollos) was late for the training due to miscommunication	A telephone wire to the regional office for confirmation of the training should be done. RDs should likewise forward all communication to

Issues/Problems	Action/s Taken/Recommendation/s
	concerned personnel under his/her supervision
Only ten days were given for the pilot enumeration, as against 25 days for the actual enumeration. Thus, not all procedures could be simulated during the pilot census, e.g. frequency and schedule of meetings between CAS and TS or between TS and enumerators	It was suggested that enumeration period for pilot census be that of the actual census
An EA, as delineated during the C2K, consists of more or less 400 households, the enumeration of which is targeted to be finished within the 20-day period. For the pilot census enumeration, only 10 days were allotted and, hence, enumeration of an EA may not be completed within the given time frame	There should be further delineation of EAs for the respective pilot provinces
Some of the materials for training were only made ready/available during training. Moreover, printing and allocation of materials for the 2 nd level and enumeration took place during training. Since the same people were involved in the allocation and training, concentration for such responsibilities was a burden	Printing of materials for training and their allocation should be made before the training
2ND LEVEL TRAINING	
What is the main land use of cut flowers?	It should be classified in "others" category
What is the classification of tiger grass which is made into broom?	According to BAS personnel, tiger grass is classified as a permanent crop
What is the tenure status of land in which the operator has only the tax declaration?	It should be classified as ownerlike possession
How to classify the rearing of goldfish for sale as an aquafarm operation	Rearing of aquatic animals for production and sale is considered an aquafarm activity
How to include agricultural and fishing establishments in the pilot census	These establishments are pre-determined and will be enumerated by the ENs if located in the sample barangays, otherwise, the NSO personnel will be responsible for enumerating them
How to classify institutions which raised livestock and propagate agricultural plants	For this census, institutions are out of scope. However, those households living in it will be covered
Aquaculture was not included in the fishing activity (EN Manual, p. 41, instruction for column 10)	Culturing of fish, prawn, oyster, mussel, seaweeds, frog, pearl, turtle, etc. is an aquaculture activity and should form part of the fishing activity
Persons hired as fishing workers in fishing are excluded in fishing activity (EN Manual, p. 41, 3 rd paragraph)	A person engaged in fishing activities as paid and/or hired fishing worker should be included in CAF Form 1, i.e., "1 – Yes" in Column 10 but "2 – No" in Column 11 if he/she is not an operator
Issues/Problems	Action/s Taken/Recommendation/s
There was confusion on the term "during the past/last 12 months" because it would mean 12 months prior to March 2002 (March 2001 to February 2002). However, our reference period was the calendar year which was January 2001 to December 2001	During the past/last 12 months" should be replaced with "during the reference period"
Permission on the use of local terms for names	The use of local terms for names of crops,

Issues/Problems	Action/s Taken/Recommendation/s
of crops, equipment and fishing gears used	equipment and fishing gears used will be permitted as long as coding for such items would not pose any problem
What is the definition of "aquafarm complex"?	<ul style="list-style-type: none"> Since there was no definition provided in the manual, aquafarm complex was temporarily defined in such a way that holding in agriculture is defined. Technical definition of aquafarm complex and its use should be provided.
OPERATIONAL	
<i>Allocation of CAF Training Materials</i>	
Training materials were not allocated separately from the enumeration materials. Thus, during the first day of training, allocation of materials was done. Since CAF Forms 2, 3 and 4 have serial numbers, allocation of these forms proved to be time-consuming especially when the forms are not sequentially arranged during shipment	Allocation of materials for training and enumeration should be separated ahead of the training schedule. Since CAF Forms 2, 3 and 4 have serial numbers, allocation of the said forms should be controlled by listing their respective serial numbers so that during enumeration and processing, the said forms are properly accounted for.
<i>Packing of CAF Enumeration Materials</i>	
Some of the CAF training materials were folded and crimped. CAF Forms 2, 3 and 4 were supposed to be distributed using the serial numbers as control. However, a few of these forms were not distributed sequentially.	Packing of the CAF materials should be done properly so as not to cause folds in the forms. Furthermore, the packing of forms with serial numbers should be done systematically using the said numbers as control.
<i>Cost of Shipment of CAF Training and Enumeration Materials</i>	
The cost of excess baggage for the CAF materials was overlooked. Trainers had to reimburse the said cost	Cost for the shipment of CAF materials should be included in the preparation of cash advances.
<i>Posters, Charts and Other Training Materials</i>	
No posters, charts and other training materials such as blown up forms during training. Thus, illustrations were provided by drawing sketches through the use of chalk and board. However, this proved to be time-consuming and such illustrations were not standardized	Posters, charts and other training materials such as blown up forms should be provided during the course of training to aid trainers during discussion of the topic
<i>Evaluation of Trainers/Training</i>	
No evaluation of trainers and training were done. Since training is very crucial during the conduct of census, proper evaluation of trainers/training will provide basis for the improvement of the different aspects of training	Trainers and training should be evaluated to provide basis as to the area of improvement in the method of training
<i>Role of Other Agencies</i>	
BFAR-C.O. personnel conducted the training for CAF Forms 3 and 4. However, this set-up undermined the standard operation of the pilot census	Training should be left to authorized personnel. The role of other agencies should be clearly identified. Their role should be limited to being observers and resource persons
SUPERVISION	

Issues/Problems	Action/s Taken/Recommendation/s
<i>Handwriting</i>	
Difficulty in writing the prescribed style or stroke	Add exercises for daily practice in writing during training
<i>Mapping and Canvassing</i>	
Difficulty in mapping and canvassing due to limited time	Add mandays (at most 2 days) for ocular inspection and/or field verification to accommodate mapping and canvassing
<i>CAF Administrative and Other Forms</i>	
Difficulty in the accomplishment of required CAF and administrative forms	Allot at least 30 minutes a day for winding up of accomplished work for ENs, TS, and CAS
<i>Translation Guide</i>	
Some ENs had a hard time translating the questions written on the form into their local dialect	A translation guide will be provided
<i>Ratio of ENs to EAs/Barangays</i>	
No delineation of barangays was done. EA assignment was based on Census 2000. Since this pilot census has only 10 mandays, number of ENs almost doubled while numbers of EAs were the same. Thus, there were some EAs with more than one EN	Day of visit in column 1 of CAF Form 1 is not continuous because the ratio of EAs to ENs is not proportional. Numbering of HSN and BSN was done on special arrangements as agreed upon by the respective ENs
<i>Allocation of CAF Forms 1, 2, 3 and 4</i>	
<ul style="list-style-type: none"> There was a shortage of CAF Forms 1 and 2 There were only about a hundred CAF Forms 1 when the actual numbers of CAF Form 1 needed should be more than three hundred There were more agricultural operators than expected There was a huge excess of CAF Forms 3 and 4 for some barangays 	<ul style="list-style-type: none"> Photocopies of CAF Forms 1 and 2 were used Some of these forms were photocopied at the expense of the TS. A reimbursement should be provided to them
<i>Sample Barangays</i>	
Barangays Cambaro, Salvador, Danao and Bagong Silang in Southern Leyte are too far and cannot be visited by common means of transportation	Options to enumerate these barangays were: an average of 1 to 2 1/5 hours walk, a ride on a horse or a stay-in arrangement
<i>Callbacks</i>	
There was an average of 6 households for callbacks	The use of CAF Form 6 (Appointment Slip) should be translated in local dialect
<i>The Use of Ballpen for Filling Up of CAF Forms</i>	
The use of ballpen for filling up CAF Forms became a problem when ink of lotus ballpen was either too dried up or too wet	<ul style="list-style-type: none"> Some ENs use pencil and retrace the entries with ballpen Some ENs replace lotus ballpen with uni or pilot ballpen

Issues/Problems	Action/s Taken/Recommendation/s
<i>Interview Time for Using CAF Forms 2, 3 and 4</i>	
Most of the ENs found that using CAF Form 3 took them longer to interview an operator. The apparent reason was the time consumed in asking the dimension of the boat used as well as the information on labor inputs	<ul style="list-style-type: none"> ▪ If gross tonnage is not known, ENs probe the operator by asking for the estimates of length, breadth and depth of the fishing boat used or through the verification of documents such as license to operate boat, if any ▪ The use of calculator and tape measure facilitated the computations and estimations
<i>Bundling/Folioing of CAF Forms</i>	
There was no shoelace, string or plastic bag provided for bundling/folioing of CAF Forms	The NSO-Southern Leyte provided these materials
<i>Allocation of Budget for Communication, Coordination and Documentation</i>	
Communication & coordination of personnel during training and enumeration are also crucial. Without communication means, information needed may not be received on time. Also, proper documentation of the activity did not have budget	Budget for communication and coordination should be given consideration. Personnel sent for training and enumeration should at least be given pre-paid cell cards. Budget for documentation such as picture taking should also be given consideration
<i>Enumerator at Risk</i>	
One enumerator was at risk when a criminal from another town/barangay took refuge at one of our sample barangays.	This enumerator was always accompanied by the local barangay official during the entire course of the enumeration
<i>Weather Conditions and Terrain</i>	
<ul style="list-style-type: none"> ▪ It was raining during the half of the enumeration period in Macrohon and actual output was less than expected ▪ Since some enumerators were from Maasin, familiarity with the area during the first week of enumeration was difficult 	<ul style="list-style-type: none"> ▪ ENs were expected to cover the area for the entire enumeration period. They were also expected to cover those days w/ less output ▪ There should be a provision for umbrellas, bags or kits and/or raincoats that would help keep our forms from getting wet ▪ The assigned ENs to these areas were accompanied by their respective TS and local officials
TRAINING PROCESSING	
<i>Provincial Processing Staff (PPS)</i>	
No setting up of PPS was done prior to the training of manual processing.	The setting up of PPS was done during the training of manual processing. Selection of staff for the PPS was based on the consideration of involvement of the staff during enumeration.
<i>Duties and Responsibilities of the PPS</i>	
The role of the verifiers overlapped with that of supervisors and the functions of verifiers and administrative staff as part of the PPS were not discussed in the manual.	Each member of the PPS should have a clear and a well-defined duties and responsibilities.
<i>Instructions for Filling Up of Processing CAF Forms</i>	
No detailed instructions on how to fill up CAF Forms for processing as discussed in the processing manual.	Additional instructions were provided on how to fill up CAF Forms for processing.
MANUAL PROCESSING	

Issues/Problems	Action/s Taken/Recommendation/s
<ul style="list-style-type: none"> Some entries were not clear and legible Lined out entries were replaced by correct ones but were not legible 	<ul style="list-style-type: none"> Erasures accounted for most of the unclear entries Good handwriting should be one of the criteria in hiring enumerators Exercises for writing alphanumeric characters should be part of the training
Since some CAF forms were not enough, some information were written on yellow pads	Sufficient allocation and reserves of CAF forms should be ensured during the actual census
Other CAF forms were dirty due to blotted ink of ballpens	For processing purposes, these forms were left as it is. However, some were rewritten in blank CAF forms
Totals do not tally with the details	Details should prevail over total
QUICK COUNT	
Instructions on how the program processes the encoded data, where it will store and its corresponding data file extension were not fully discussed	Referred to IRD. Processing manual will be revised to include such instructions and discussion
<ul style="list-style-type: none"> Instructions were limited to installation, data entry, preliminary counts and transmission of files to central office There were no instructions on troubleshooting, e.g., addition of EAs 	<ul style="list-style-type: none"> Referred to IRD. Processing manual will be revised to include discussion of other areas of the system Processing manual will be revised to include instructions on how to solve problems encountered using the system
No instruction as to what entries to be encoded, i.e., the sum total of every worksheet or all entries in the worksheet	Referred to IRD. The processing manual will be revised to include such instruction
Inability to display preliminary count due to measurement problem, i.e., report width is larger than paper width	Referred to IRD. The preliminary count was displayed using excel application. The system is currently undergoing refinement
Difficulty in encoding of entries since columns 3 and 4 of CAF Form 9 (Worksheet for Agriculture) were interchanged in the program	Referred to IRD. The system is currently undergoing refinement
The program added the assigned operator serial number for agriculture and fishing operator as the total number of agricultural and fishing operators, respectively	Referred to IRD. The system is currently undergoing refinement
MACHINE PROCESSING	
Edited entries were not written in the proper places	<ul style="list-style-type: none"> For processing purposes, the forms were left as it is More examples and instructions as to where to write the correct entries will be provided in the manual
Some of the edited entries in the questionnaires were not readable	<ul style="list-style-type: none"> For processing purposes, the forms were left as it they are More examples and instructions as to how to write the correct entries will be provided in the manual