

Chapter 1

INTRODUCTION

1.1 Background

The Myanmar Census of Agriculture 2003 (MCA 2003) is the third Census to be carried out by the Settlement and Land Records Department (SLRD). The Food and Agriculture Organization (FAO) has provided technical assistance in the preparatory phase of this census. All plans in undertaking the Myanmar Census of Agriculture 2003 were prepared under TCP/MYA/2801.

The first Census of Agriculture had been conducted in 1953 together with the Population Census. It covered 252 towns. The second Census of Agriculture, which was conducted under MYA/85/004) "Agricultural Census and Strengthening of the System of Agricultural Statistics," covered 272 townships. The Settlement and Land Records Department of the then Ministry of Agriculture was responsible in the conduct, on sample basis, the 1993 Census of Agriculture with financial and technical assistance from UNDP and FAO. The Reports on Myanmar Census of Agriculture 1993 had been made available in 1995, two years after the conduct of the census.

Preparatory to the conduct of the main census in 2003, there was a need to conduct a Pilot Census that tested the field operational procedures of conducting the census and the efficiency by which the questionnaires obtained the information necessary for planning and monitoring the agriculture sector. The daily accomplishment reports of the enumerators during the pilot census have provided the bases in establishing standard output per day to estimate the number of enumerators to be fielded during the main census within a duration of 40 calendar days from October 1 to November 15, 2003 (except Sundays).

The Pilot Census, which was undertaken on December 26-31, 2002 had provided SLRD central headquarters officers the opportunity to experience all the different phases of work from planning to training to supervision of census enumeration in the four pilot areas as well as the manual and machine processing of the pilot census results.

The four Pilot Census areas were selected to represent the four ecological zones of the country. To represent the coastal areas Myeik township of Tanintharyi Division was selected where 241 fishing households were found in addition to numerous crops and livestock holdings; to represent the delta region, the township of Ma-U-Bin in Ayeyarwady Division was selected where 3 aquaculture holdings and 83 fishing households were found in addition to crops and livestock holdings; to represent the central plain area, Pyay township was identified located in Bago West Division where 109 fishing households were also found and 5 commercial livestock holdings in addition to the crops and livestock holdings; and to represent the mountainous areas Kalaw township in

Taunggyi District of Shan State South was chosen. As expected of a mountainous area, only 4 fishing households were found but there was no aquaculture farming in the sample village tract. . There were also no commercial livestock and poultry holding in the sample village tract .

Learning from the experience gained from the conduct of the pilot census, the objective, therefore, of this field operations manual is to provide guidance to all officers of the SLRD in monitoring and controlling all field work involving the conduct of the 2003 Myanmar Census of Agriculture.

1.2 Objective of the Myanmar Census of Agriculture 2003

The main objective of the Census of Agriculture is to take an inventory of all holdings in the country so that structural data may be made available for small administrative divisions. These structural data are needed for planning the allocation or distribution of agricultural land and in the formulation of policies that will directly benefit the villages and communities.

A complete coverage of all agricultural holdings will also provide a sampling frame in the conduct of agricultural sample survey as follow up activity of the Agriculture Census.

1.3 Scope of the Census

The items to be covered in the Census of Agriculture 2003 are in accordance with the recommended items to be covered under FAO's Programme of the World Census of Agriculture 2000 considering that the Myanmar census is part of the World Census of Agriculture Programme. In the Programme for the World Census of Agriculture 2000, FAO advocated the inclusion of fisheries activities on the holding. In the Myanmar Census of Agriculture, the fishing activities of the household members of agricultural holdings were not limited on the holding but also off the holding. In addition, aquaculture farming is also included as well as commercial livestock and poultry holding.

To adequately cover the fishing and livestock sectors in this agriculture census, a household listing will be undertaken nationwide beginning March 16, 2003 up to May 15, 2003. This listing will cover all village tracts and wards that will be covered by the census. This activity is in line with the updating of village and block maps which had been done in June 2002 and at the same time update the listing of households using FORM 2003MAC-1. The listing of households would provide an accurate basis for the allocation of questionnaires to be used in the main census. There are four questionnaires and a listing form that were designed to collect most of the data requirements of government. They are as follows:

FORM 2003 MAC-1 - LISTING OF HOUSEHOLDS to record the name of heads canvassed in the village in village tracts or block in wards. The listing of households will provide a count of the

total population of the village by sex (males and females), agricultural holdings and area of holdings, number of livestock (large and small), fishing (on farm and off-farm), fish culture or aquaculture, commercial livestock and poultry. If the listing operation will be conducted earlier than the main census, it will be very useful in the actual allocation of questionnaires in the different village tracts and wards or even at the village and block levels. It can also serve as a sampling frame in the selection of sample households for interview in case there is decision to conduct the MCA 2003 on a sample basis. Furthermore, it can serve as benchmark for the conduct of agricultural surveys and future census of agriculture.

FORM 2003 MAC-2- AGRICULTURAL HOLDING QUESTIONNAIRE will obtain all structural information about the holding like land use, area and number of parcels. Some basic demographic characteristics of the agricultural household and farm practices.

FORM 2003 MAC-3 - COMMERCIAL LIVESTOCK AND POULTRY QUESTIONNAIRE will obtain an inventory of commercial livestock and poultry and collects information on disposal of dairy and poultry products.

FORM 2003 MAC-4- HOUSEHOLD FISHING QUESTIONNAIRE will gather fishing activities or participation of household members in fishing on the holding as well as off the holding .

FORM 2003 MAC-5 - AQUACULTURE QUESTIONNAIRE will gather information on aquaculture farming and the mechanical equipment and machinery used.

1.4 Geographic Coverage of the Census

The Census of Agriculture 2003 will cover the entire country. At present, there are 9 States and 8 Divisions with a total of 324 townships. Of these 324 townships , about 316 townships may be covered which include highly urbanized areas but only up to the extent that there are special holdings in these areas. That is, a list of commercial livestock and aquaculture operators may be made available by the Department of livestock and Department of Fisheries. If there are holdings in these highly urbanized areas, they will be covered. Only areas with security problems will not be included in the census. In the 1993 Census of Agriculture, only 272 townships were covered.

Appendix 1 shows a complete list of townships, districts and State/Division and their corresponding geographic codes to be used in the census. At the end of the list are the townships that will be excluded. Take note that the states/divisions, districts and townships have their unique geographic codes.

1.5 Organizational Set Up

Under the TCP\MYA\2801- Assistance to the Census of Agriculture 2003, a Steering Committee was formed to oversee the preparatory phase of the census, which involves the designing of questionnaires, preparation of enumerator's and supervisor's manuals, field operations manual and detailed work plan as guide in the overall implementation of the census field operation. This Steering Committee is chaired by Director General U Win Kyi of SLRD. Members of this committee were drawn from the roster of government officials coming from agencies who are stakeholders in the conduct of the agriculture census and SLRD as shown below.

Mr. Bhaskar Barua, FAO Representative, Myanmar
 U Gyan Shein, Deputy Director General, SLRD
 U Hla Kyaw, Director, Department of Agricultural Planning (DAP)
 Dr. Mya Thwin, General Manager, Myanmar Agriculture Service (MAS)
 Dr. Than Htun, Deputy Director, Dept. of Livestock and Veterinary
 U Hla Win, Deputy Director General, Department of Fisheries
 U Kyaw Tint, Director (Statistics), SLRD
 U Shwe Thein, Director (Survey and Mapping), SLRD
 U Myint Swe, Director (Central Training), SLRD
 U Myint Thein, Deputy Director (Statistics Div.), MCA Project Officer
 U Saw Hlaing, Deputy Director (Computer Div.), MCA Project Officer

U Win Htoon Nee, Myanmar Census of Agriculture 2003 National Project Director, serves as the Committee's Secretary.

To assist the National Project Director to carry out the preparatory activities involving technical and operational plans, a Technical Committee was created by the Steering Committee with the following membership:

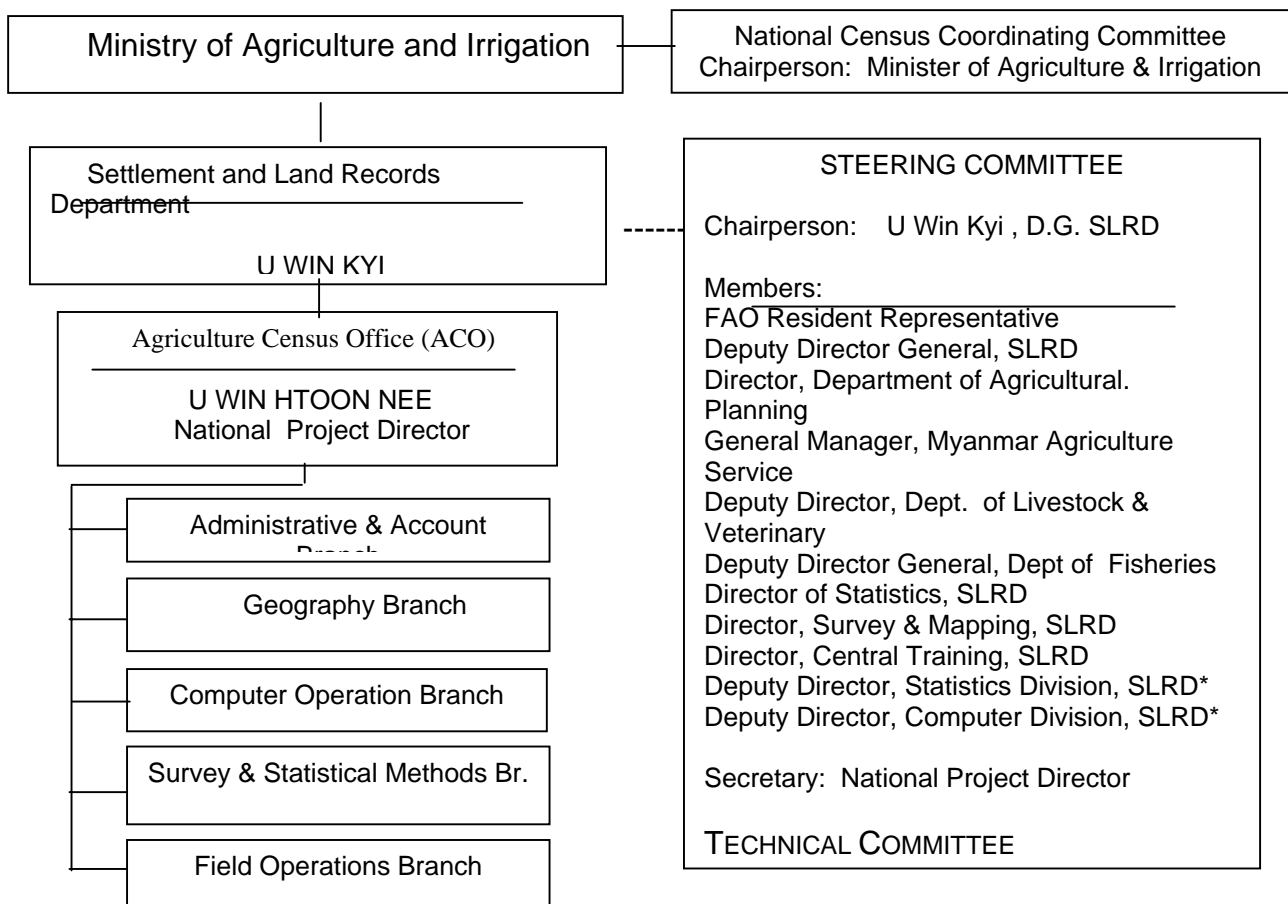
- Representative from the Department of Livestock and Veterinary
- Representative from the Department of Fisheries
- Representative from the Department of Agricultural Planning
- Deputy Director Saw Hlaing, Computer Division
- Deputy Director Aye Maung Sein, Lower Myanmar Settlement Office
- U Aye Kyu, Assistant Director
- U Saw Salmon, Assistant Director
- U Waing Maung, Assistant Director
- U Ye Win, Staff Officer
- Aung Kyaw Lin, Staff Officer

Deputy Director Myint Thein acts as the Secretary of the Technical Committee (TC). The TC has been instructed to meet regularly to discuss the progress of work assignments and make decisions on the technical aspects of the work.

Consultants to the Technical Committee were the international as well as the national consultants of the FAO composed of the following: Ms. Nelia R. Marquez, International Consultant on Census Planning, Design and Methodology; Mr. Manuel M. Manuel, International Consultant on Statistical Data Processing, Database and Analysis; U Thet Lwin, National Consultant on Survey Methodology (3 months only) and U Htun Linn, National Consultant in Statistical Data Processing.

To assist in staff work of the Technical Committee, the Agriculture Census Office was reconstituted similar to the 1993 census organization. It has 5 branch offices namely: Administrative and Account Branch, Geography Branch, Computer Operation Branch, Survey and Statistical Methods Branch and Field Operations Branch, see chart below.

Chart 1. Organizational Structure of Myanmar Census of Agriculture 2003



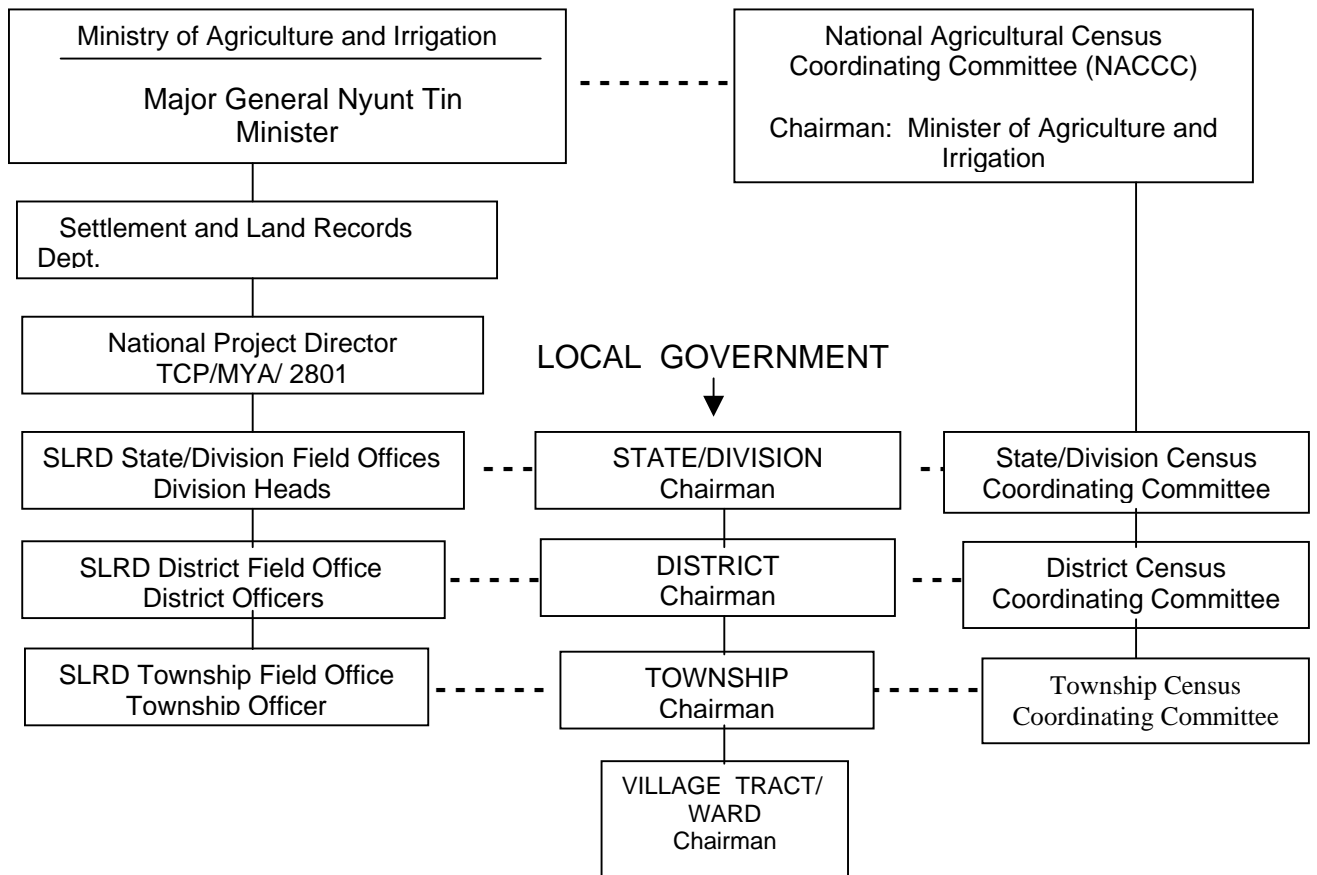
Chapter 2

CENSUS FIELD ORGANIZATION

2.1 Field Organizational Structure

In Chart 1, the national organizational set up was shown in relation to the role of the Steering Committee during the preparatory phase of census planning. The chart below will show the hierarchical set up of the census field organization, the agencies concerned and the linkages of the national government agencies with the local government agencies.

Chart 2. Field Organizational Structure of the Census of Agriculture 2003



To provide policy guidelines and coordination among government agencies in the undertaking of Myanmar Census of Agriculture 2003 (MCA 2003), a National Agricultural Census Coordination Committee (NACCC) shall be formed at the national level to be chaired by the Minister of Agriculture and Irrigation, with membership coming from the ranking officers of the different ministries and corporations that are beneficiaries of the census data, directly or indirectly. The Director General of SLRD acts as the Executive Officer of the

NACCC and the National Project Director serves as the Secretary to the NACCC.

Similar coordinating committees shall be established at sub-national governments, i.e. at the State/Division level, district level and township level. Coordination at the village tract/ward level is achieved at the township level where the memberships may come from the ranks of the Chairmen of the village tracts/wards since they are directly in touch with the people at the grass roots level. This hierarchical order of coordination is necessary so that the MCA 2003 can be carried out with the full support of the entire government machinery from top to bottom.

It is the responsibility of the State/Division heads of SLRD to organize the formation of the State/Division Agricultural Census Coordinating Committee at least one month before the start of the census field work.

The State/Division Agricultural Census Coordinating Committee shall be headed by the Chairman of the State/Division. The members of the Coordinating Committee are the District Chairmen of the State/Division and Officers of cooperatives/association of farmers in the area. The SLRD Division Head shall act as the Secretary of the Committee.

The chairperson shall convene the members of the Committee to explain the purpose by which the committee was formed. During the organizational meeting, the main responsibility of the State/Division census coordinating committee shall be explained- i.e. to solicit the cooperation of all local government officials to disseminate the information on the conduct of the census from October 1 to November 15, 2003. The committee shall also be responsible in providing logistic support in the conduct of the census by lending their communication and transportation facilities when required by the census field personnel. It is important that the people should be aware of the on-going census enumeration. The Committee shall be provided with leaflets or handouts as their guide in information dissemination. The handouts shall contain the objective of the census and the importance of the data to be collected in improving the agriculture sector.

2.2 Flow of Communications

There are three paths of communication channel in Chart 2. The first channel is the communication flow within the Ministry of Agriculture and Irrigation, the second is through the Coordination Committees and the third channel of communication is within the hierarchy of the local governments. Observe that a broken line connects the three different channels. This broken line is the symbol for horizontal coordination while the solid line in each channel is the line of communication directly within the organization from top to bottom and vice versa. Take note also that the coordinating committees link the executing agency (SLRD) with the cooperating agencies (local governments) in the conduct of the census.

Since the executing department is the Settlement and Land Records Department within the Ministry of Agriculture and Irrigation in the undertaking of the census of agriculture, it is expected that instructions normally emanate from the Director General of SLRD, goes up to the Minister for policy matters before implementation. Take note also that the Minister is the chair of the National Agricultural Census Coordinating Committee with the Director General of SLRD as the Executive Officer of the Committee and the National Project Director as the Secretary.

As the implementing arm of the SLRD at the local level, the point person is the Division Head who shall be coordinating with the State/Division Chairman in the conduct of the census. The coordination of census activities is achieved through the membership of the coordination committee. The SLRD officers in the different districts and townships implement the census program with the support of the different local government officials.

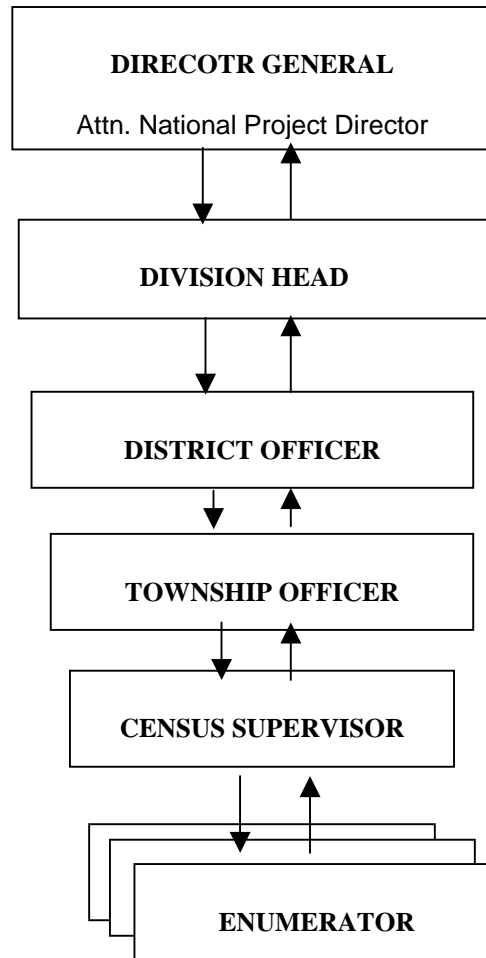
The Village tract/Ward chairmen are coordinated at the township level where they are automatically a member of the Township Agricultural Census Coordinating Committee. It is important that the designated supervisors in each village/block be known to the Village Tract/Ward Chairman including the designated enumerators in each village.

Within the implementing agency, the flow of communication regarding the conduct of the census shall pass through the office of the National Project Director, being the point person in the day-to-day implementation of the field operations. As mentioned earlier, the NPD is backstopped by the Agriculture Census Office (ACO) with five branch offices.

Communications coming from the SLRD Headquarters in Yangon and going to the field offices shall emanate from the Director General, through the National Project Director. All communications coming from the field offices and going to Central Headquarters shall be addressed to the Director General, SLRD, **Attention: NPD, MCA 2003.**

The usual channels of communications shall be observed in the field with respect to coursing communications through the different levels of supervision and furnishing respective field offices with copies of communications to and from the Central Headquarters in Yangon in accordance with the flow in Chart 3 below.

Chart 3. Flow of Communications at SLRD



Thus, the District Officer receives communications from the Division Head. If such instructions concern the township officers, census supervisors and enumerators, the district officer shall be responsible in passing these instructions down to the enumerator through the Township officer, who in turn, shall pass the same instructions down to the supervisors. The Census Supervisors shall in turn be responsible in passing the instructions down to the enumerators.

Reports and other information intended for higher levels of authority shall likewise follow the same channels. Thus, the Census Supervisor submits all reports and sends all communications to the Township Officer. The township Officer then takes the responsibility of transmitting the supervisor's reports to the Director General, attention NPD, through the District Officer, the Division Head.

Chapter 3

ADMINISTRATIVE MATTERS

3.1 Estimates of the Volume of Census Materials to Print

3.1.1 Census materials to print

Printing of forms for the MCA 2003 signals the start of the census undertaking considering that these are the instruments to be used in the collection of desired information. When the millions of forms are printed, it is an impossible task to make corrections. That is why, before the printing of any form to be used in the census, the materials must be reviewed very carefully.

The basic census forms and materials to be printed are the following:

Form 203 MAC-1	Listing of Households
Form 203 MAC-2	Agriculture Holding Questionnaire
Form 203 MAC-3	Commercial Livestock and Poultry Questionnaire
Form 203 MAC-4	Household Fishing Questionnaire
Form 203 MAC-5	Aquaculture Questionnaire
Enumerator's Manual	
Supervisor's Manual	
Field Operations Manual	
FORM 2003 MAC-2A	Sample Control Form
Administrative Control Forms	

3.1.2 Determination of the volume/quantity to print for the various forms

The determination of the number to be printed for each form should be based on some indicators that can give an idea of the number of holdings. A good source to estimate the proportion of the total number of agricultural holdings in relation to the total number of households is the 1993 Census of Agriculture. Another good source of the proportion of agricultural holdings in relation to the total households is the Listing done in June 2002. The best source would be the result of the listing to be conducted starting this March. But if we wait for the result of the listing at the end of May, it may be too late. The result of the listing operations, however, will still be useful to assess the volume that has been printed when the summary statistics become available. The main use of the list of households would be the allocation of forms more accurately at the village tract/ward level. What will be calculated now are the best estimates than can be done under the present circumstances so that the printing can already start. Be reminded that as printed forms are received, these have to be allocated immediately and shipped these printed forms on a staggered basis, starting with the most remote township of the Union.

Before one can use the proportion of holdings to the total number of households to have an estimate of the number of agricultural holdings, a projection of the 2003 number of households have to be done.. This is only possible if there are projections on the number of households available or population projection. There are two possible sources of input data, for projecting households, namely: the official population projection prepared by the Central Statistical Organization up to year 2001 and the estimated population and number of households released in 2002 by General Administration. Since the level of projections from these two sources are not close to each other, there is a need to compute estimates using the two to give a low and high estimates or an average estimate. It is suggested that initially, the target for printing would be the low estimate but to be rectified as soon as the listing of households results will come out in June or July this year. If we print more than what is necessary, scarce resources will be wasted. On the other hand, if we print much less than what is required, then there is repercussion during the census operation. It is possible that at the height of census enumeration, the forms may run out of supply. The implication is that it would be more expensive in the long run to short-print because the field work would be delayed, the shipment of forms or the transportation cost to bring additional forms to the different townships and village tracts/villages may prove to be more expensive than over-printing a little bit. It is very important at this point for the decision makers to use their judgment as there is no hard and fast rule to follow.

It is very crucial to prepare accurate estimates of the volume of census materials to be printed. The first step that should be done then is to estimate at the State/Division Level since data are easily available at this level. As one goes down to the district then township level, data become more scanty. In fact, the data that are available are those published by the General Administration and the 1983 Census of Population which are at the township level. While the 1983 Census of Population is quite outdated, it can still be used as the benchmark. Despite the many problems encountered in matching the census file and that of the GA file, a master list of townships was produced, see Appendix Table 2.

The table below would show the summarized population projection for 2003. The result of the household projection exhibited at the national level a range from a low of 8.44 million households to a high of 10.133 million households.

Appendix Table 1 shows the geometric growth rates that were computed and used to project the household base data to Year 2003.

Table 3.1. Household Projections Using Two Sources of Population Data

State/Division	1993 Ratio of Holding	Projected Households 2003					
		Based on 2001 Pop'n Projection			Based on G.A. File		
		Urban	Rural	Total	Urban	Rural	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TOTAL		2505694	7627771	10133464	2116900	6325698	8442598
01 KACHIN STATE	0.6029	51778	186447	238226	30209	137605	167814
02 KAYAH STATE	0.7499	14495	42293	56788	8969	23804	32773
03 KAYIN STATE	0.5747	47550	261640	309190	28447	115312	143759
04 CHIN STATE	0.8651	12258	80416	92674	11022	64543	75566
05 SAGAING DIVISION	0.6718	146168	895911	1042079	117641	916281	1033922
06 TANINTHARYI DIVISION	0.6516	65257	209737	274994	45362	157435	202797
07 BAGO (E) DIVISION	0.5659	121441	435089	556530	95912	380953	476864
08 BAGO (W) DIVISION	0.5659	87638	425900	513538	74688	347905	422593
09 MAGWAY DIVISION	0.6881	148335	829892	978227	97186	594891	692078
10 MANDALAY DIVISION	0.6360	374630	1030456	1405086	231246	733580	964826
11 MON STATE	0.4370	136154	348951	485105	83798	238377	322175
12 RAKHINE DIVISION	0.6271	77755	478534	556289	73848	475254	549101
13 YANGON DIVISION	0.5429	799162	386997	1186159	898319	513221	1411540
14 SHAN STATE (S)	0.7943	84802	304924	389726	81312	352913	434225
15 SHAN STATE (N)	0.7943	75933	279521	355454	60984	205339	266323
16 SHAN STATE (E)	0.7943	30889	129762	160651	20012	101904	121917
17 AYEYARWADY DIVISION	0.5899	231449	1301300	1532748	157944	966380	1124324

The total households projected will be one of the bases in computing the total number of listing sheets to be printed and also provide data in the computation of the duration of listing operation, if done separately. The households are desegregated by urban-rural classification as guide in determining the volume to be listed by area. While it was mentioned earlier in the coverage of the census that 316 townships will be covered, the listing, however, may not include the highly urbanized areas of Yangon (downtown areas) and those of Mandalay (downtown areas also). However, in some way these areas will be covered if there are special holdings found in them through a list to be furnished by the Department of Livestock and the Department of Fisheries. It is, therefore, a matter of decision on the part of the division head or district officer whether or not some highly urbanized areas are to be covered by the listing. If some areas become problems on security, they will not also be covered. Appendix Table 2 will give an indication of the total number of households at the township level. The 2002 listing of households done in June

last year may be able to show the extent of holdings in the ward as obtained from the chairman.

1. Estimate of Requirements for Form 2003 MAC-1 Listing of Households

The following table will show the total number of villages and blocks including the number of townships and districts which determines the set of listing sheets needed for the listing operation.

Table 3. 2. Summary of Geographic Areas to be Covered by MCA 2003

State/Division	Total Ward	Total Blocks	Total VT	Total Villages	Township*	District
(1)	(2)	(3)	(4)	(5)	(6)	(7)
TOTAL	1588	3465	12904	57262	316	63
01 KACHIN STATE	85	140	516	1539	18	3
02 KAYAH STATE	12	40	70	442	7	2
03 KAYIN STATE	16	23	276	1355	7	3
04 CHIN STATE	32	40	471	1345	9	2
05 SAGAING DIVISION	151	318	1647	5720	34	8
06 TANINTHARYI DIVISION	63	84	265	1172	10	3
07 BAGO (E) DIVISION	125	165	695	2688	14	2
08 BAGO (W) DIVISION	74	300	686	3633	14	2
09 MAGWAY DIVISION	157	360	1537	4787	25	5
10 MANDALAY DIVISION	170	578	1611	5464	31	7
11 MON STATE	66	81	380	999	10	2
12 RAKHINE DIVISION	112	139	944	3575	17	4
13 YANGON DIVISION	107	158	597	2009	45	4
14 SHAN STATE (S)	100	166	378	4009	21	2
15 SHAN STATE (N)	82	252	728	4460	19	5
16 SHAN STATE (E)	37	129	188	2103	9	4
17 AYEYARWADY_ DIVISION	199	492	1915	11962	26	5

*/ Excludes the following townships: Kamaing in Kachin State; Lashi, Layhee, Nanyun in Hkamti District of Sagaing Division; Pangyan, Narphant, Pangwaing, Mongmao from Shan East State.

The required sets of listing sheets are equal to the total number of blocks in wards (col. 3 above) and the total number of villages in col. 5. Take note that the blocks in highly urbanized areas of Yangon and Mandalay have already been removed. However, in case a decision is made to do some household listing in any of these areas, the township officer has to provide the necessary listing sheets needed.

The design of the listing sheet consists of two sheets. The front page of the first sheet contains the title page, the geographic identification and the listing particulars. The front page can list 20 households. The back of the first sheet can list 25 households or a total of 45 households for the first sheet. For the second sheet, the first page no longer carries the usual title page but similar in design as in the back page of the first sheet. The second sheet can list 50 households, back-to-back.

If, on the average, a village has about 75 to 80 households, then 2 sheets of listing form printed back-to-back is more than adequate since the first sheet lists 45 households and the additional sheet, 50 households. In other words, the minimum number of sheets may be 1 for small villages with at least 5 listing forms for urban places.

Based on the total number of blocks and villages, at the national level, and on the bases of an average of 2 sheets of forms per block/.village, we need a minimum of 60,727 sets of listing forms or a total of 121, 500 sheets. If we translate this into reams of A4 or legal size paper, we would therefore require 243 reams. This is the minimum number that can list about 5 million households.

Since the lower estimate of the number of households is 8,400,000, then we have to print extra sheets of 3.4 million more. This will entail about 34,000 sheets of back-to-back printing, an additional requirement of 68 reams. The computation does not end here. There is a need to provide a 25% reserve to take care of wastage of forms especially during printing and handling, for use during training and provision for the increase in the number of households to be listed. For example, if there are 7000 enumerators nationwide, then we would need 14 reams already for this, if we provide one copy each for the training.

In summary, the total requirements for the Listing of Households form are as follows:

For 60,750 sets of two pages, printing back-to-back.....	243 reams
For additional households of 3.4 million, 34,000 sheets	68 reams
Total requirements.....	311 reams
Plus: 25% reserve.....	78 reams
	<hr/>
Total to be printed of Form 2003 MAC-1	389 reams
or approximately 195,000 sheets, back-to-back printing.	

2. FORM 2003 MAC-2 Agricultural Holding Questionnaire to be printed

The number of agricultural holding questionnaires to be printed would depend upon the number of agricultural holdings in the country. The 1993 Census of Agriculture estimated only 2.7298 million holdings covering an agricultural area of 16.78 million acres. The “Myanmar Agriculture in Brief” published by the Ministry of Agriculture and Irrigation showed that the estimate

in 2000-2001 of area sown was 25.8 million acres plus 1.7 million under fallow or a total of 27.5 million acres. It mentions in the brief that the average size of the holding was 5.6 acres. With this estimate, easily we can calculate the number of holdings to be more than 4.9 million. Furthermore, the brief also made mention about 17.8 million acres of "culturable" land that the government is encouraging to be cultivated. Assuming that 5% of this 17.8 million acres were awarded for cultivation yearly since then or about 10%, then an additional number of holdings of about 300,000 is easily realized. This brings the estimate of the number of holdings at the national level at 5.2 million.

Using the ratio of agricultural holding obtained in the 1993 Census of Agriculture in Table 1 above can provide an estimate of the number of holdings at the national level and at the state/division level. Since we have two sets of household projections, a low estimate and a high estimate on the number of agricultural holdings can be prepared. In fact an average of the two estimates can be generated as a "compromise" estimate.

The table below (Table 3.3) shows the estimate of agricultural holdings. Using the same proportions applied to the projected households, we obtained at the national level two different average proportions.

Table 3.3. Estimated Number of Agricultural Holdings

State/Division	% of hldgs to total HHs		Estimated No. of Holdings		
			Low estimate	High Estimate	Average of (3) & (4)
(1)	(2)		(3)	(4)	(5)
Total	56.60	58.13	4777330	5890245	5333787
01 KACHIN STATE	60.29		101175	143626	122401
02 KAYAH STATE	74.99		24576	42585	33581
03 KAYIN STATE	57.47		82618	177692	130155
04 CHIN STATE	86.51		65372	80172	72772
05 SAGAING DIVISION	67.18		694589	700069	697329
06 TANINTHARYI DIVISION	65.16		132143	179186	155664
07 BAGO (E) DIVISION	56.59		269858	314941	292399
08 BAGO (W) DIVISION	56.59		239146	290611	264878
09 MAGWAY DIVISION	68.81		476219	673118	574668
10 MANDALAY DIVISION	63.60		613629	893635	753632
11 MON STATE	43.70		140790	211991	176391
12 RAKHINE DIVISION	62.71		344341	348849	346595
13 YANGON DIVISION	54.29		278628	210101	244364
14 SHAN STATE (S)	79.43		344905	309559	327232
15 SHAN STATE (N)	79.43		209264	282337	245800
16 SHAN STATE (E)	79.43		96838	127605	112222
17 AYEYARWADY DIVISION	58.99		663239	904168	783703

The lower estimate yielded an average of 56.6% share of agricultural holdings relative to the total projected households in 2003 based on the G.A. geographic file while the higher estimate of the number of holdings yielded 58.13% share to the total projected households., see Table 3.3 above.

If we scan over the estimates of agricultural holding across States and Divisions, a wide disparity between the two estimates is observed. There are only two divisions whose estimates from two sources are almost the same. The two are Sagaing and Rakhine divisions. In Sagaing, there is only a difference of about 5480 holdings while in Rakhine, the difference is smaller, 4,508 holdings.

There are also instances where the high estimate exhibited lower number of agricultural holdings compared with the "low" estimate. These are in Yangon Division and Shan State South. The difference in the 'high estimate' in Yangon is 68,500 holdings lower than the 'low estimate' while in Shan State South, the difference is lower, which is 35,346 holdings

The estimated total number of holdings ranges from 4.78million to 5.89 million holdings. The average of the two estimates is 5.33 million, which is near the estimate of the Ministry of Agriculture and Irrigation. It does not guaranty, however, that this is correct, but the average can be used as basis in printing Form 2003 MAC-2 Agricultural Holding Questionnaire. If we provide for a 25% reserve, like what was done in the listing sheet, we would print therefore a minimum of 6.67 million questionnaires. Since we contemplate to use 4 sheets per questionnaire, then we would require 26.68 million sheets of A4 paper. This is about 53,360 reams of paper. The number of questionnaires to be printed can be rectified after the listing operation, whether or not to print some more. Just to give an idea how many reams of paper to print the questionnaires to be used for training, let us assume that all officers and supervisors as well as enumerators will total 7,500. Each questionnaire has 4 sheets. If each one requires 1 set of questionnaire, we will be consuming 60 reams of the 53,360 reams, or about 0.112% of the total. This is only for training purposes that is why it is necessary to provide for wastage in printing and distribution.

3. Requirements for Forms 2003 MAC-3, MAC-4 and MAC-5

The printing of the three questionnaires may be done after the listing operations in May, 2003 to know exactly the extent of households engaged in commercial livestock and poultry, fishing on-farm and off-farm and aquaculture. There is still enough time to print if the summary statistics can be made available by June. The training would start middle of August so there is still enough time to print these questionnaires. However, for purposes of making preliminary estimates, we can use the result of the Pilot Census since it was able to capture all the activities that the MCA 2003 would like to cover. Appendix Table 3 also shows township level estimates although may not be very accurate. The indicators used came from the result of the listing operation last June, 2002. The proportions of crop and livestock holdings were

computed by township and applied these to the average projected population, i.e. the average of the two projections.

The 12 village tracts covered 48 villages in four pilot townships. A total of 4,058 households were listed with the following distribution of holdings:

Table 3.4 Distribution of Type of Holding Enumerated in Pilot Census, December 26-31, 2002.

Type of Holding	Number	% to Total
1. Agricultural holding	2323	57.24
2. Commercial Livestock	5	0.12
3. Household Fishing	437	10.77
4. Aquaculture	3	0.07
5. Other Households	1563	38.52
Total	4058	106.72

The total percentage exceeded 100% because fishing, commercial livestock and aquaculture are not mutually exclusive from the agricultural holding but may require a separate questionnaire. In other words, some 6.7% of the households may have to fill up more than one questionnaire. So for purposes of estimating the number of questionnaires to be printed, we allowed the percentage to exceed 100%.

Take note also that the total percentage of agricultural holding at the national level obtained from the Pilot Census is in-between the estimates in Table 3.3 above. It is possible that our estimates are correct at the national level. The problem will be how to allocate these printed forms at the township level.

On the basis of the standard proportions obtained from the pilot, we can now estimate the number of questionnaires to be allocated as follows:

Table 3.5 Estimates of Other Questionnaires to be Printed

Forms to be Printed	Low Estimate	High Estimate	Average
Base Household Population	8,439,732	10,133,464	9,286,598
1. Commercial Livestock/Poultry (MAC-3)	10,128	12,160	11,144
2. Household Fishing (MAC-4)	908,959	1,091,374	1,000,167
3. Aquaculture (MAC-5)	5,908	7,093	6,501
Total Sheets Required	924,995	1,110,627	1,017,812

Commercial Livestock and/or Poultry: This is a one-sheet questionnaire printed back-to-back so the total required is a maximum of 12, 000 nationwide. The printing would not pose any problem because it requires only 24 reams of A4 paper.

Household Fishing Questionnaire: This is also a one-sheet questionnaire, printed one side only but requires a maximum of 2,183 reams of A4.

Aquaculture Questionnaire: This is also a one-page one-side printing questionnaire that requires only a volume of 14 reams of A4 paper.

4. Summary of Printing Requirements for questionnaires and Manuals.

The following summarizes what has been presented in the previous sections plus the requirements of personnel to be involved in the census.

Table3.6 Quantity of Census Materials to be Printed by Kind

Kind of Questionnaire/Materials	Number	25% Reserve	Training (Part of (3))	Total to be printed
(1)	(2)	(3)	(4)	(5)
1. Form 2003 MAC-1 (Listing of Households):	155,500	38,875	15,000	194,375
a. First sheet where title page is	60,800	15,200	7,500	76,000
b. Second Sheet with 50 lines back-to-back	94,700	23,675	7,500	118,375
2. Form 2003 MAC-2 (Agricultural Holding)	5,333,787	1,333,447	7,500	6,667,234
3. Form 2003 MAC-3 (Comm'l Livestock/Poultry)	12,000	10,200*	7,500	22,200
4. Form 2003 MAC-4 (Household Fishing)	1,000,167	250,042	7,500	1,250,209
5. Form 2003 MAC-5 (Aquaculture Questionnaire)	7,093	9,273*	7,500	16,366
6. Enumerator's Manual	7,500	50	7,500	7,550
7. Census Supervisor's manual	1,550	50	1,500	1,550
8. Field Operations Manual	1,550	50	1,500	1,550
9. Administrative Form 2003 MAC-1 *	15,000	3,750	7,500	26,250
10. Administrative Form 2003 MAC-2*	7,500	1875	7,500	16,875

*Added 7,500 for training. The 25% reserve was not enough to take care of training requirements.

3.2 Allocation of Forms

1. Allocation to be done by ACO to field offices

The allocation of the different forms is not an easy task. Since it would be impossible to prepare an allocation plan at the ward or village tract level due to the absence of a basis to do so, therefore the allocation that will be done would be at the township level. Even at the township level, the standard that would be used in the estimation of households and the number of holdings would be the same as used at the State/Division level. However, as soon as the compilation of the result of the listing operation in May 2003 becomes available, this should be reviewed to find out which township may require substantial quantities of forms.

The only forms that can be allocated would be Form 2003 MCA-1 and Form 2003 MAC-2 since the need for these two forms is voluminous but

universal. For the other forms, it would be impractical at this point to prepare an allocation that distributes thinly the estimated number required especially for commercial livestock and or/poultry and aquaculture. Although 10% of the households may be engaged in fishing, on the average, at the national level, this is not true for all areas. For instance in mountainous areas like in Shan States (the three) there may be less than 1% engaged in fishing in creeks or rivers nearby and there may be higher proportions of households engaged in fishing in regions where paddy is planted especially when there are irrigation services and also in areas along big rivers. Therefore, the allocation of the three forms, namely: Forms 2003 MAC-3; MAC-4 and MAC-5 shall be delayed until a more reliable basis is available, like the listing of households to be conducted starting this month.

While the township is the main recipient of the allocation for the census, the division office as well as the district offices have their own allocation of reserves. The division office gets 5 percentage points of the reserve for the entire townships within its jurisdiction, the district office also gets 5 percentage points of the total materials allocated to all townships under it and the township office will get 10 percentage points of the total reserve. Half of this reserve will be re-allocated to the first line supervisors who directly supervise the enumerators. An allocation plan shall be prepared for the district and the division offices after the township offices have been allocated. Central Headquarters will retain whatever is left over after all the allocations for the different levels of the field organization have been done. Appendix Table 3 shows the total number of households to be covered as well as the estimated number of holdings. Appendix Table 4 shows the number of enumerators required to finish the enumeration within 40 working days from October 1 to November 15, 2003.

2. Allocation to be done by Township officers to Census Supervisors

The allocation of Forms MAC-1 and MAC-2 and other census forms will be done only when the data on the number of holdings will be received by the township officer from ACO. As soon as the data are received, the allocation plan should be prepared. The actual distribution of forms to enumerators should only be done right after the training or few days before the start of enumeration to avoid wastage of forms. Since the supervisors and enumerators are regular employees of SLRD, they will be participating actively in the counting of forms for each village tract or ward.

Be careful in giving reserve to supervisors and enumerators. Provide only the same number of questionnaires for the listed households engaged in a particular activity. If in the village tract, there are only 10 fishing households listed, then provide only 10 Form 2003 MAC-4. If the enumerator needs additional, the supervisor will provide the extra form.

To avoid over allocation of forms to areas not requiring a particular form like livestock and aquaculture questionnaires, the exact statistics compiled from the listing operation this summer must be made available to the township

officer. He should control the distribution in order not to waste valuable questionnaires.

At the sub national level, the District Officer of the SLRD is the point person in the overall allocation and distribution of forms within the district of his jurisdiction. However, the actual allocation of forms to the enumerators is the responsibility of the Township Officer through the agricultural census supervisor as they are recruited and hired at this level in the organization. The detailed instructions are discussed in Chapter 6 – Field Operations.

A control form will be required to record the shipment of census materials to the different SLRD offices showing, how many questionnaires by type and on what date it was sent. This control form will be prepared by ACO staff to go with the shipment. Adm. Form MAC-1 has been designed for the purpose, which is a standard control form for shipping of census materials to and from the field offices. It will also be used for allocating forms to enumerators.

Shipment may be addressed to the District Officer (DO) for the control of allocation. There are, however, exceptions to this general procedure. If accessibility is a problem, then the District Officer can make the necessary arrangement with ACO so that direct shipment to the township officer may be done. This procedure, however, will be followed only upon the DO's intercession..

The township officer and his supervisors are also responsible to inform the township officials to prepare a list of different types of non-household holdings or special holdings (state/ cooperatives/ private Large farms) showing the name of holding, juridical holder, address of the farm and area of land. The number of questionnaires required to enumerate these special holdings should also be taken into consideration in the allocation of forms to the enumerator. There is also a possibility that a special enumerator or staff officers will enumerate commercial livestock and poultry holdings because of their importance in food security.

The supplies and materials necessary for the use of census field workers should also be shipped ahead of time. For example, some of the supplies may have to come from Headquarters. The ACO through its Administrative and Account Branch should see to it that these are taken care of including the enumerator's kit.

3.3 Shipment of Forms and Materials

After the census forms are printed, these are allocated in accordance with the requirement of materials of the different townships. These are packed and sent to the different districts in the State or Division by shipping them through the most economical but efficient means of transportation. Prioritize the shipment to far flung districts where transportation is uncertain. If it is more economical to ship to township offices, then shipment would be done at the

township level but the District officer has to be informed so that he can control the allocation and distribution of forms. A Shipment Plan for census materials must be prepared by the Administrative and Account Branch of the Agriculture Census Office.

Always accompany the shipment with the transmittal form, Adm. Form 2003 MAC-1. It should be acknowledged after checking the accuracy of the shipment by mailing back the transmittal form or through telephone so that it can be recorded that the shipment reached its destination.

3.4 Determination of Workload and Personnel Requirement

The ACO is task to backstop the requirements of the Subcommittee on Field Operations in the determination of the workload for each township. However, the Township Officers under the supervision of the District Officer and the Division head, shall in turn prepare detailed workload analysis of the Village Tracts under their jurisdiction, taking into consideration the standard output in the administration of the questionnaires and the total number of households, holdings and villages since they directly influence the number of questionnaires to be allocated to the supervisors and enumerators in the area.

Basically, the statistics summarized from the listing operation from March to May 2003 should be able to provide the necessary information for the computation of workload, duration of enumeration and the deployment of enumerators and supervisors. The number of holdings and the number of fishing households, etc. by village are the data that will be used in the determination of workload at the village level, which is the most up-to-date data. For purposes of determining the number of enumerators and supervisors, the summary at the township level will be used by ACO. Like in the allocation of forms, as discussed above, the deployment plan of the enumerators and supervisors at the village level shall be prepared by the township officer under the direct supervision of the district officer and the procedure and guidelines to be followed will also be discussed in Chapter 6.

Standard time of enumeration by type of questionnaires.

- Form 2003 MAC-1 Listing of Households-5 to 10 minutes or about 40 households a day if listing is done continuously.
- Form 2003 MAC-2 = 35 minutes
- Form 2003 MAC-3 = 15 minutes
- Form 2003 MAC-4 = 10 minutes
- Form 2003 MAC-5 = 15 minutes

In other words, if the household is engaged in agricultural production, the length of time to do the interview using Form MaC-1.and Form MAC-2 would be 40 to 45 minutes. An additional 40 minutes is required to accomplish the 3 additional census questionnaires.

If the household is engaged in all the different activities, then the interview would last for more than 1 hour. On the other hand, if it is a non-agricultural holding and not engaged in any fishing activities, the length of interview is about 5 minutes because only the listing form will be accomplished.

Chapter 4

CENSUS PUBLICITY AND INFORMATION DRIVE

4.1 Introduction

Census publicity and information drive seeks to inform the general public about Myanmar's Census of Agriculture 2003. The main purpose of this information drive is to draw favorable response and cooperation to the nationwide census of agriculture undertaking. The publicity program intends to begin a few months prior to the actual census and shall be the lead activity in educating the public on the basic information about the census of agriculture and the importance of crop, livestock, poultry, fishing and aquaculture statistics.

Information dissemination of the benefits that may be derived from the results of the census in terms of the development of the agriculture and fishery sectors may enhance the level of public awareness and cooperation. This means the program aims to achieve an impact beyond making respondents ready during the census. Furthermore, it is envisaged that the census publicity may encourage other means of public involvement and support.

A variety of information campaign strategies shall be employed to reach the different stakeholders in the census. This chapter will attempt to discuss the key strategies in the dissemination of information and the mobilization of government resources from the national level down to the grassroots level to make the census of agriculture undertaking a success.

4.2 National Publicity Strategies

The information campaign at the national level may involve the following activities:

1. Organize a press launching for the Census of Agriculture 2003 a month prior to the actual enumeration. The Minister of Agriculture and irrigation is the best person to elicit cooperation from the majority of the farmers who are potential respondents for this census. The Director Generals of the Department of Settlement and Land Records Department, Department of Livestock and Veterinary, Department of Fisheries, Department of Agricultural Planning and other user-departments of the different ministries are encouraged to participate in this launching activity.

Another alternative which has more impact is to let the Chairman of the Union or one of the Secretaries to lead launching affair to drum up more publicity nationwide with the Minister for Agriculture and Irrigation, Minister for Population and Immigration and Minister for Planning in supportive role.

2. Prepare and print publicity and information materials such as leaflets, brochure, press releases, fact sheets, posters, billboards, streamers.
3. Disseminate information over the radio that this census is not only for agricultural holding but also fishing and aquaculture because of their importance to the livelihood of the majority of the people as well as for food security of the nation.
4. Request special holdings or group of farmers or cooperatives to sponsor Trade Fairs or public display of agricultural products as part of the publicity program for the census.
5. Make arrangements for the conduct of discussions/interviews about the Census of Agriculture in radio and television stations to be attended by high government officials with invited successful farmers.

4.3 Information Strategies at Sub national Level

At the sub-national level, publicity strategies may be directed to gain widespread public awareness and participation through the following activities:

1. Encourage the Local Government Units (LGUs) and community/ religious/ civic organizations, private institutions and corporations, particularly fertilizers and pesticide companies, to provide support to the information campaign by extending specific assistance such as:
 - a) Installation of billboards at strategic places like in highways and intersections of major thoroughfares
 - b) Streamers to be hanged on buildings often visited or in other conspicuous or prominent places.
 - c) Posters to be installed in public transport and in public places like in market place, municipal hall, etc. where people congregate.
2. Provide local press with primers, posters and press releases/fact sheets in local dialects.
3. Make extensive use of the broadcast media. Arrange for interviews of local television and radio hosts as often as possible. Request for the free airing of plugs or announcements. Seek the assistance of local theaters/movie houses owners for the inclusion/free showing of the the census of agriculture publicity materials.
4. Make representations with local organizations for active endorsement of the Census of Agriculture during meetings, forums and other similar gatherings and distribute information materials.

5. Tap the school system, particularly those colleges and universities that offer courses in agriculture and fishery, and organize information dissemination sessions for teachers and students.
6. Solicit the assistance of religious leaders to include in their religious celebration appeal for cooperation to their flock to entertain the enumerators who will visit their residences to do census work in agriculture, fisheries and aquaculture.

4.4 Preparation of Publicity Materials

Professional help may be needed to prepare information materials. Whether the publicity materials are for national or sub national distribution, basic materials as reference to be used are the Enumerator's Manual, the questionnaires, and other census materials where the objectives, scope, methodology, etc. are written.

The technical terms have to be translated into layman's lingo to be understood by the general public. What is important for the public to understand is how the data are to be used for policy formulation and monitoring of the agriculture sector as basis for preparing programs and projects that will benefit the farming population.

It should also be part of the campaign for cooperation that one of the goals of the census of agriculture is to obtain the population count which are equally important for health and educational planning.

Chapter 5

RECRUITMENT AND TRAINING

5.1 Recruitment

The recruitment of enumerators and supervisors is the start of the field operations for Myanmar's Census of Agriculture 2003.

Enumerators for the MCA 2003 shall be recruited from among the field surveyors of the field offices of the Settlement and Land Records Department (SLRD). Of the 324 townships of Myanmar, it may only be possible to cover 316 townships because highly urbanized areas will be included as far as special holdings are concerned. There are only very few areas to be completely excluded because either they are remote or with some security problems.

Supervisors shall also be recruited from among SLRD inspectors and staff officers at the township level. The present SLRD core-staff that are available for recruitment in each township is at least 20. Nationwide, there will be about 7000 enumerators to be deployed. With a ratio of 1 supervisor to 5 enumerators, there is a need to recruit 1,400 first line supervisors.

It is the primary responsibility of the district officer to recruit the number of enumerators and supervisors for the townships under his jurisdiction with the assistance of the township officers. It is expected that some surveyors may be re-assigned outside of their official station, if necessary. In the event that there is shortage of supervisors, SLRD District Staff or even Central Headquarters staff officers may be recruited to act as supervisors during the entire duration of the census from October 1 to November 15, 2003.

5.2 Levels of Training

There will be three levels of training for field operations specifically the instructions on how to fill up the questionnaires to be used in the collection of data and field procedures of enumeration. The first level training is the training of Central Headquarters trainers, who in turn shall train the second level training. Attendees to the second level training are the District Officers, who in turn would be the trainers for the third level training. The third level training will be attended by supervisors and enumerators together if the number is about 35-40 but in separate classes if the total number of enumerators and supervisors exceeds 40 but held at the same time or simultaneously.

Since there are 70 district officers in the second level training which shall be held in Yangon, the class has to be divided into two to be manageable. Thus the need to train more central headquarters trainers not only to train the field trainers but also to act as roving trainers later on during the training for the

main census. These roving trainers shall assist the Township Officers in the training of supervisors and enumerators at the district and/or township levels.

The tentative schedule in the training for the main census is shown in ANNEX 1, the Timetable of Myanmar Census of Agriculture 2003.

5.3 The Training Course

The primary objective of the training course is to familiarize personnel involved with the different phases of the census operation such as concepts, definitions, terms, interviewing techniques, field management practices, monitoring of the fieldwork in progress, evaluating the quality of work performed, especially with the entries made by enumerators, and solving problems arising from the interview process.

Each level of training shall follow a specific training schedule. All three levels of training would discuss the contents of the Enumerator's Manual, covering the objectives of the census, concepts used, form contents, field enumeration procedures, and accomplishing the questionnaires and other administrative forms.

5.3.1 Third Level Training

A five-day training has been prepared at the level of the enumerator. The same training content shall be observed in the first and second levels of training although the time schedule may be different. The detailed day-to-day time schedule for the training of enumerators including the topics to be discussed at a particular time are shown in the course content below.

Course Content Third Level Training

DAY ONE			
TIME	DURATION (Minutes)	MAIN TOPIC	SCOPE
9:00 – 9:30	30	INTRODUCTION	Background, Objectives, scope and coverage, organizational set up
9:30 – 10:30	60	ROLE OF ENUMERATOR	Responsibilities of enumerator, role of supervisor, forms and materials, allocation of forms and standard output, submission of accomplished questionnaires
10:30 – 10:45	15	TEA BREAK	
10:45 - 12:00	75	CONCEPTS AND DEFINITION OF TERMS	Concept of household, work, agricultural holding, agricultural holder, type of holding, land use classification, parcel.
		LUNCH BREAK	
13:00 –14:00	60	HOW TO ACCOMPLISH CENSUS QUESTIONNAIRES:	A.1 Identification of the Holding A.2 General Characteristics of the Holder's Household,

		FORM 2003MAC-2 QUESTIONNAIRE:	Discussion of codes to be used.
14:00 – 15:30	90		
15:30-15:45	15	TEA BREAK	
15:45 – 16:30	45	REVIEW OF CONCEPTS	Household, Holding, holder, type of holding, land use, parcel.
DAY TWO			
9:00 – 10:30	90	HOW TO ACCOMPLISH CENSUS QUESTIONNAIRES: FORM 2003MAC-2 AGRICULTURAL HOLDING QUESTIONNAIRE	A.3 Land utilization A.4 Permanent crops, A.5 Temporary crops Exercises on how to fill up the three sections
10:30 – 10:45	15	TEA BREAK	
10:45 – 12:00	75	Continue Agricultural Holding Questionnaire	A. 6 Livestock and Poultry A. 7 Agricultural Buildings, Tools, machinery and Equipment. Recitations
		LUNCH BREAK	
13:00 – 14:00	60	Continue Agricultural Holding Questionnaire	A.8 Employment, Farm Practices and other Information of the holding
14:00 – 15:30	90	FORM 2003MAC-3 COMMERCIAL LIVESTOCK AND POULTRY QUESTIONNAIRE	B.1 Identification of the Holding; B.2 Livestock and Poultry: Large and small livestock, poultry and disposal of dairy and poultry products. B.3 Agricultural crops around the commercial livestock/poultry holding.
15:30 – 15:45	15	TEA BREAK	
15:45 – 16:30	45	REVIEW OF ENUMERATION PROCEDURES	FORM 2003MAC-2; FORM 2003MAC-3; FORM 2003MAC-4; FORM 2003 MAC-5.
DAY THREE			
9:00 – 9:30	30	FORM 2003MAC-4 HOUSEHOLD FISHING QUESTIONNAIRE	Geographic identification, Instructions: accomplishment of the questionnaire Concept of fishing on holding and off-farm.
9:30 – 10:30	60	FORM 2003 MAC-5 AQUACULTURE HOLDING QUESTIONNAIRE	Enumeration Particulars: D.1 Identification of the holding D.2 Aquaculture activities D.3 Agricultural crops around the aquaculture holding
10:30 – 10:45	15	TEA BREAK	
10:45 – 12:00		MOCK INTERVIEW (As much as possible get a real farmer as respondent)	Use Agricultural Holding Questionnaire

12:00 – 13:00	60	LUNCH BREAK	
13:00 – 14:00	60	MOCK INTERVIEW (The respondent must have an aquaculture farm)	Administer the Household Screening Questionnaire together with aquaculture questionnaire
14:00- 15:30	90	MOCK INTERVIEW (The respondent must be an agricultural holding)	Administer FORM 2003 MAC-2
15:30 –15:45	15	TEA BREAK	
15:45: 16:30	45	REVIEW ON MOCK INTERVIEWS	The trainees should be encouraged to make comments in the way the interviewees interviewed the live respondents.
DAY FOUR			
TIME	DURATION (Minutes)	MAIN TOPIC	SCOPE
8:00 –15:00	360	FIELD DEMONSTRATION	House-to-house visit of households in accordance with the procedure as discussed in Section 5.4 below.
15:00 –15:30	30	TEA BREAK	
15:30 –16:30	60	TEAM DISCUSSION	The team summarizes their experiences for discussion the following day.
DAY FIVE			
9:00 – 10:30	165	REPORT OF TEAM EXPERIENCES	Each team shall report on their actual experiences in the administration of the different questionnaires.
10:30 -10:45		TEA BREAK	
10:45 –12:00		ADMINISTRATIVE MATTERS	Allocation and distribution of questionnaires/supplies. Supervisors should meet with their enumerators to discuss the field operations.
12:00 –13:00		LUNCH BREAK	
13:00 –17:30	210	SUPERVISOR'S MANUAL	Supervisors attend this training on the two manuals.

5.3.2 First and Second Levels of Training

For the first and second levels of training, the number of days to tackle the concepts would be less than 2 days considering that the officials have already been exposed to these concepts during the March-May 2003 operations. Since they are trainers for the lower level of training, the Enumerator's Manual shall still be used. In addition, the Supervisor's Manual and the Field Operations Manual have to be given adequate time for discussion

since these two manuals give directions on how the technical as well as the operational aspects of census work are discussed.

The course content and the time schedule for the first and second level training are shown below:

Course Content, First and Second Level Training

DAY ONE			
TIME	DURATION (Minutes)	MAIN TOPIC	SCOPE
9:00 – 9:30	30	INTRODUCTION ROLE OF ENUMERATOR	Background, Objectives, scope and coverage, organizational set up. Responsibilities of enumerator, role of supervisor, etc
9:30 – 10:30	60	CONCEPTS AND DEFINITION OF TERMS	Concept of household, work, agricultural holding, agricultural holder, type of holding, land use classification, parcel.
10:30–10:45	15	TEA BREAK	
10:45-12:00	75	Review of the Listing of Households, FORM 2003MAC-1 . The accomplished listing sheets shall be used as a list frame in the conduct of the census,	How the HCN are assigned for the different Holdings: Crops, livestock, combination of crops and livestock, commercial livestock and poultry, household fishing and aquaculture.
12:00-13:00		LUNCH BREAK	
13:00–14:00	60	FORM 2003MAC-1 Continue discussion on the list frame, how these will be used to control allocation of forms as well as feedback on the enumeration.	Summary of Listing Operation
14:00 – 15:30	90	HOW TO ACCOMPLISH CENSUS QUESTIONNAIRES: FORM 2003MAC-2 AGRICULTURAL HOLDING QUESTIONNAIRE	Identification of the holding, Land utilization and location of parcel, Permanent crops, temporary crops, livestock and poultry, farm building/structure, machinery and equipment, fisheries, hired labor.
15:30 – 15:45	15	TEA BREAK	
15:45 – 16:30	45	FORM 2003MAC- COMMERCIAL LIVESTOCK AND POULTRY QUESTIONNAIRE	Identification of the Holding; Livestock, small livestock, poultry, disposal of dairy and poultry products. Crops grown around the holding.
DAY TWO			
9:00 – 9:30	30	FORM 2003MAC-4	. Geographic identification,

		HOUSEHOLD FISHING QUESTIONNAIRE	Instructions: accomplishment of the questionnaire Concept of fishing on holding and off-farm.
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Course Content, First and Second Level Training

DAY TWO (continuation)			
TIME	DURATION (Minutes)	MAIN TOPIC	SCOPE
9:30 – 10:30	60	FORM 2003MAC-5 AQUACULTURE QUESTIONNAIRE	Identification of the Holding, Aquaculture activities, production facility, principal species cultured, use of mechanical equipment, etc
10:30 – 10:45	15	TEA BREAK	
10:45-12:00	75	FORM 2003MAC-5 SAMPLE AGRICULTURAL HOLDING QUESTIONNAIRE	Continue discussion of Sample Holding Questionnaire.
12:00 – 13:00		LUNCH BREAK	
13:00– 14:00		MOCK INTERVIEW (real farmer as respondent)	Use Agricultural Holding Questionnaire
14:00 – 14:30	30	MOCK INTERVIEW (aquaculture farm operator as respondent)	Administer aquaculture holding questionnaire
14:30- 15:30	60	MOCK INTERVIEW (The respondent must be an agricultural holding Holder)	Use Agriculture Holding Questionnaire and Household fishing questionnaire if respondent also fishes.
15:30 –15:45	15	TEA BREAK	
15:45: 16:30	45	REVIEW ON MOCK INTERVIEWS	The trainees should be encouraged to make comments in the way the interviewees interviewed the live respondents.
DAY THREE			
8:00-13:00	300	FIELD DEMONSTRATION	Visit a nearby township for the actual house-to-house visits of households, see Section 5.4 for procedure.
13:00-14:30		LUNCH BREAK	
4:30 –16:30	120	TEAM DISCUSSIONS	Trainer should convene a plenary session of all teams to discuss experiences of the different groups.
DAY FOUR			
TIME	DURATION (Minutes)	MAIN TOPIC	SCOPE

9:00 –10:30	165	SUPERVISOR’S MANUAL	Use the Manual as training material. Discuss chapter by chapter.
10:30 –10:45	15	TEA BREAK	
10:45 – 12:00	75	Supervisor’s Manual/	Continue discussions
12:00-13:00		LUNCH BREAK	
13:00 –17:30	210	FIELD OPERATIONS MANUAL	Use the Manual as training materials. Discuss also the contents of the ANNEXES.
DAY FIVE			
TIME	DURATION (Minutes)	MAIN TOPIC	SCOPE
9:00 – 10:30	165	FIELD OPERATIONS MANUAL	Discuss actual statistics of the townships under the District Officers jurisdiction.
10:30 –10:45		TEA BREAK	
10:45-12:00	75	FIELD OPERATIONS MANUAL	Continue. Discuss the Chapter on Field Operations thoroughly
12:00-13:00		LUNCH BREAK	
13:00–15:30	75	ADMINISTRATIVE MATTERS	Discuss the administrative procedures in the implementation of the Census Plan.

5.4 Procedures in the Conduct of Field Demonstrations

The field demonstration part of the training is to provide actual experience in the administration of the different census instruments. The mock interviews conducted inside the classroom with real farmers as respondents will expose the trainees on how to conduct the interview spontaneously as a prelude to the actual field interviews.

5.4.1 First Level Training

The first level training is the first field demonstration to be organized. Since there are only very few of the trainees, who shall act as trainers for the second level training, the entire group shall visit one village and try out the field procedures as found in the next chapter, Field Operations. Since there is only one team, some of the trainees will do specialized functions, i.e. one will administer the Listing of Households. Another will administer the Agriculture Holding Questionnaire (FORM 2003MAC-2), another trainee will administer the Aquaculture Questionnaire (FORM 2003MAC-5) and another trainee, if still available, shall be assigned to administer the Household Fishing Questionnaire.

Depending upon the volume of households listed and the presence of agricultural holding., livestock holding, household fishing and aquaculture, the administration of the questionnaires should be administered to all eligible households. As much as possible, all trainees should attempt to experience accomplishing the different forms with live specimens. At the end of the field demonstration, a debriefing has to be conducted to discuss the significant observations or experiences gained. These experiences will be good inputs for the improvement of future field operations.

5.4.2 Second Level Training

The second level training will be attended by the trainers at the sub-national areas and therefore it is very important that their exposure in the field is complete. The training shall be conducted in Yangon in two separate classes but simultaneously. The trainees should be organized to form enumeration teams for purposes of the field demonstration. Each team shall be composed of about 12 members so that the two classes can form 6 teams, three in each team. Two nearby townships shall be chosen for the field demonstration outside of Yangon, where agricultural holdings are present.

Three Central Headquarter Trainers shall accompany each class and each one shall act as the team coordinator with local officials. Each team shall be assigned to cover one village. Each team shall designate its own team leader and another co-team leader. The team shall be divided into two groups to be led by the team leader and the co-team leader. Enumeration and listing shall be done simultaneously in the village, one group will enumerate the right side of the road and the other group will cover the left side of the road. The team leader leads the group by plotting on the map the relative location of the houses visited. He also assigns the member of the group which type of questionnaire that will be administered. Like in the first level field demonstration, each member shall be assigned to administer a particular form. There are 5 questionnaires to be administered but it is possible that in the village that was assigned to a team, there may not be an aquaculture holding or commercial livestock and poultry holding. Since the field demonstration is one whole day, all the members of the group should be able to experience in the accomplishment of the different questionnaires.

Towards the end of the day, the team shall have a caucus and discuss the highlights of their experiences with respect to the administration of the different questionnaires, which questions are easy for the respondents to answer, which ones are difficult to elicit response and which one is recommended to be deleted and the reason for such recommendations. Also, which of the concepts were difficult to operationalize or not easily understood. The group leaders within a team should present the report of the team/group the next day. These reports must be submitted to the Central Headquarters coordinator for submission to the National Project Director as a feedback to the conduct of the training.

5.4.3 Third level Training

The third level training is a mixed group, the supervisor and the enumerators to be supervised. The conduct of the training would be at the township level. It is possible that a separate training will be conducted for supervisors and enumerators. In townships where the total number of enumerators and supervisors exceeds 35, the class has to be divided into two classes, if there are trainers available to handle other classes. To remedy the shortage of trainers at the township level, the district officers trained in Yangon may train all township officers and their assistants in the district office prior to the schedule of training of enumerators and supervisors at the township level. This training may be identified as the third level training and the fourth level training will be solely for the enumerators.

Depending upon the number of trainees, the field demonstration can be conducted through the formation of teams of manageable size. If the number of trainees is too large, then another way of conducting the field demonstration is through observation and direct participation as a group. For example, there are only two trainers to train 40 enumerators and supervisors. The class can be divided into two, say 20 in each team. Because of the size of the team, everybody will participate in recording the result of the interview but only one will ask the questions. After the interview of one household, some discussions among the team members will ensue to compare what has been recorded. This process will provide an insight into how interviews are conducted, how the respondents react to such questions, and also have the feeling of being involved in the interview process although his participation is only in the recording of responses. If this method is adopted, the respondent must be warned about the situation.

Another way of conducting the field demonstration is to call the holders or prospective respondents to the Village Tract Office and the interviews can be done by groups just to expose the enumerators on how to conduct interviews with live specimens under controlled conditions. Use the Listing of Households to select the respondent to answer a particular questionnaire.

No matter what is the mode of field demonstration, the very purpose of conducting it should always be borne in mind - to provide enumerators an actual experience in the interview of respondents so that they can perform their assigned task properly. Most of the questions in the different questionnaires are pre-coded, therefore, it would not be difficult to encircle the appropriate code. What is important for the enumerators to learn by heart are the concepts because these would guide them in detecting the consistency of responses of the respondents. These are learned through practice thus the importance of the field demonstration.

5.5 Training on the Supervisor's Manual

The Supervisor's Manual training may be conducted after the training on the Enumerator's Manual together with the Field Operations Manual during the first, second and third levels of training. Like the Enumerator's Manual, a course outline is prepared as guide in teaching the manual. If the training is done right after the Enumerator's Manual, half day may be allotted to cover all the important topics on supervision, especially the technical aspect of the work i.e., field editing of questionnaires and spot checking of enumeration to verify on the accuracy of recording as well as the adoption of the correct concepts in the gathering of information.

5.6 Training on the Field Operations Manual

Training on the Field Operations Manual is a must for all those involved in the supervisory level in undertaking the Census of Agriculture 2003. This manual tells the story of how the census is to be conducted from the planning stage to the execution of the plan. This manual can be distributed to all key officials of the census organization from the highest official down to the Assistant Township Officer and staffs. This will guide all concerned on the different aspects of census work. It is very important for the district officers to understand how the number of enumerators is computed and allocated at the village level so that they can teach the township officers to allocate the enumerators in the different village tracts under their supervision. Also, it is important to learn how the number of person-days is derived considering that the daily stipend is based on the number of person-days that a village is supposed to be enumerated.

5.7 Training on Manual Processing

The Supervisors Manual contains some procedures in the editing of questionnaires. Manual processing does the same thing except that they are done in the office, unlike the supervisor who does it in the field.

5.8 Training on Machine Processing

A separate manual is prepared for the training of machine processing, from encoding or keypunching of questionnaires to the generation of required tables. There is a scheduled training on encoders sometime in January, 2003.

5.9 Training Venue

Training venues for the census enumeration training shall meet the following basic requirements:

- must be quiet and free from distraction
- good lighting
- well ventilated, if the room is not provided with air-conditioning
- with white board or blackboard for writing or posting of posters
- comfortable chair with arms for writing
- with front table for the trainer to put training materials
- the room must be roomy to accommodate about 30 participants/trainees
- with available sound system

5.10 Training Guide

Each trainer, before going to the training room should prepare a lesson plan on the topics to be taught. The topics to be discussed should follow the order they are found in the manuals, namely: Enumerator's Manual, Supervisor's Manual and the Field Operations Manual.

The trainer should be aware of the time allotted to the topic to be discussed. As much as possible, examples have to be given to illustrate a concept or a definition. Do not change the definition as contained in the manuals. In case the trainer noticed some omissions or erroneous instructions, i.e. some instructions that are in conflict with other instructions within the manual, he/she has to call the attention of the Chairperson of the Subcommittee on Technical Planning for rectification or the office of the National Project Director.

The Enumerator's Manual is the basic training reference material. It explains the meaning of the terms and concepts used, whom to enumerate, and how to fill up the different questionnaires to be used in the Census of Agriculture and in aquaculture.

Supervisor's Manual explains the administrative and supervisory duties and responsibilities of the Team Supervisor, including how these duties or responsibilities are executed. It contains also field editing instructions as a mechanism to control the quality of data gathered by the enumerators under his supervision.

Field Operations Manual explains the procedures by which the census of agriculture will be undertaken.

Chapter 6

FIELD OPERATIONS: PRE-ENUMERATION ACTIVITIES

Before conducting the third level training, which is the last level of training, there are certain activities to be executed. These activities are mostly administrative in nature preparatory to the actual census taking. These are: the preparation of enumerator's kit and supervisors kit to be used during the third level training, deployment of enumerators and supervisors at the village tract/ward level and village/block level, allocation of questionnaires, and other forms to supervisors and enumerators. While the training on Supervisor's Manual was suggested at the end of the Third level training, it may be advantageous if the Supervisors for the Census of Agriculture be trained ahead of the Enumerator's training so that the Township Officer may be able to utilize them in the allocation of forms while the third level training is going on.

6.1 Determination and Deployment of Enumerators and Supervisors

It is the responsibility of the District Officer to prepare the deployment plan for enumerators and supervisors (Area assignments) with the assistance of the Township Officers. Adm. Form MAC-2 as shown in ANNEX 2 should be used in designating the enumerators and supervisors and submit one copy to the Director General, through the NPD. This list will serve as a master list of all enumerators and their corresponding supervisors so that if there are problems attendant to the processing of questionnaires later on, it would be easy to find out who did the enumeration and therefore, solve the problems at the earliest time possible.

Because of the volume of households engaged in agriculture and fishing activities, an enumerator may be assigned more than one village or village tract. During the Pilot Census, there may be more than one enumerator assigned to a village, especially if the size is big because the duration of enumeration was only for 6 days. However, in the main census, the duration will last for 40 working days from October 1, 2003 up to November 15, 2003. A minimum of 2 days is given to take care of travel time and a maximum of 3 days per village will given to far flung areas. In exceptional cases, more days may be given if the access to the village is difficult. This will be on the judgment of the District Officer and the Town officer.

The determination of the number of enumerators as shown in Appendix 4 was determined using the standard time of enumeration by type of questionnaires as shown in Chapter 3, page 21. For easy reference, it is reproduced here as follows:

Form 2003 MAC-1 - Listing of households has already been finished and the list may be given to enumerator as his reference, together with the updated map of the village or block.

Form 2003 MAC-2 = 35 minutes
 Form 2003 MAC-3 = 15 minutes
 Form 2003 MAC-4 = 10 minutes
 Form 2003 MAC-5 = 15 minutes

Since the determination of the number of enumerators to be deployed would depend upon the workload. The data at the village tract and village level are required to be able to prepare a good deployment plan. The data can only become available after the listing of households this coming March, April and May. ACO will send a summary of the statistics by division/state and by district. The district officer will be responsible in the deployment of available personnel so it is important that the summary statistics is received before the third level training.

For example in the pilot township of Myeik, there are 19 village tracts with 117 villages. It will require 1,847 person-days to finish the enumeration of 21,334 questionnaires summarized as follows:

Table 6.1 Workload and Deployment of Enumerators/Supervisors in Myeik Township

Form	No. of Holdings	Std. Time Minutes	Person-days*	No. of ENS**	No. of Superv***
(1)	(2)	(3)	(4)	(5)	(6)
Form MAC-1 (HHs)		-	-	-	
Form MAC-2 Agri	20,291	40	2123	53	
Form MAC-3 Liv	282	15	11	1	
Form MAC-4 Fish	4,400	15	158	4	
Form MAC-5 Aqua	38	30	2	1	
Total Questionnaires	21334	100	2294	58	12

*Derived by multiplying the No. of holdings by the standard time in minutes divided by 60 to convert it to hours and further dividing by 7 hours to convert it to person day. Take note that only 7 hours is assumed to be the effective working hours a day. If the enumerator works more than 7 hours then the person days to finish the village would be less.

**/Person-days divided by 40 (duration of enumeration, October 1-November 15, 2003)

*** No. of Enumerators divided by 5 (the number of enumerators per supervisor)

Take note in the above table that we do not determine the number of enumerators by kind of questionnaire because we do not assign enumerator just to enumerate using only one kind of questionnaire thus only the total person-days is divided by the duration of operation. Although in the above shaded column (5), the number of enumerators were computed for each type of forms but if added, the total is 59 vs. 58 when the person-days are divided by the duration of the census. In actual giving of assignments, some may work for less than 40 days and some may even work beyond 40 days. If there are still

enumerators available within the township SLRD office, avoid assigning more than 40 days duration.

To determine the exact number of enumerators to be fielded by village or village tract, we have to do the same procedure per village or village tract which can be illustrated again for the 3 village tracts for Myeik in the following table.

Table 6.2 Workload and Deployment of Enumerators/Supervisors in three selected Village Tracts, Myeik Township

Village Tract	No of Holdings for enumeration using the ff. forms				Travel Time*	Total
	MAC-2	MAC-3	MAC-4	MAC-5		
Standard Time(Min)	35	15	15	15		
MIN THAN	212	2	0	11		225
1) Person-days	17	1	-	1	6	25
2) Number of Ens						*
3) NO. of Sup						**
PINN O	210	40	0	11		716
1) Person-days	18	2	-	1	6	27
2) Number of Ens						1*
3) NO. of Sup						*
PASUTT	173	154	0	9		663
1) Person-days	15	6	-	1	6	28
2) Number of Ens						1
3) NO. of Sup						*
Total Person-days					16	80
Total Ens						2
Total Supervisor						1**

* / 2 days per village

** / 3 village tract is not enough to assign 1 supervisor. He should supervise at least 5.

*** / Enumerator will work exactly 40 days.

It is important therefore to work out the workload at the village level so that the deployment of enumerators can be optimized.

In the actual assignment of supervisors, you assign them to village tracts that are near each other. The above illustration is just to demonstrate how the number of enumerators to be deployed is computed with a duration of 40 days. Since Myeik township has 22 village tracts and 12 wards, it is possible that about 34 enumerators only may be deployed instead of the 58 as earlier computed, but they may have to work beyond the November 15 deadline. This is usually done when there is shortage of SLRD surveyors to be fielded. In some cases, it may be necessary for some inspectors to be assigned enumeration work also especially when there is no budget to defray the cost of hiring additional personnel.

With the township person days computed as shown in Appendix Table 3 and the number of enumerators to be hired in Appendix Table 4, the data may change when the village tract level statistics become available. That is why it is very important to have the summary statistics as a result of the listing operation so that more accurate estimation of the number of enumerators and supervisors can be done.

6.2 Allocation and Control of Forms at Township Level

As mentioned in Chapter 3, ACO will prepare the allocation at township level and it is the responsibility of the Township Officer to allocate the census forms to the supervisors with an allocation plan for the enumerators. Adm. Form MAC-1 should be used to control the distribution of forms and supplies. Format of the form is in ANNEX 3.

As mentioned also in Chapter 3, the census forms shall be shipped from Central headquarters to the District Offices and the District Officers shall allocate the forms to the different townships under his jurisdiction, retaining 5% of the required number of forms as reserve for the district. As soon as the township officer receives the census materials, he has to prepare an allocation plan by village based on the required number of households and holdings to be covered with a 10% reserve at the township level and 5% reserve to be given to the supervisor covering the villages. These forms shall be actually distributed to the supervisors after the enumerator's training, who in turn distribute these to the enumerators under their supervision. The reserve of the supervisor should remain with him to be re-allocated to the enumerators when required.

6.3 Allocation of Questionnaires at Village Level

Forms or questionnaires required by enumerators should not all be given at once but periodically as they submit their accomplished questionnaires. Supervisors have to prepare a control sheet for forms and materials distributed to the enumerators using Adm Form MAC 1. If the enumerator has several villages to cover, the allocation should be done by village to avoid wastage of forms. Use the summary report of the number of holding by type done in March-May 2003 as basis for allocating the forms. It is expected that the form may not be enough because there may have been an increase in the number of households and holdings or there may be decrease, if there is out-migration. Therefore the 5% reserve should be with the first line supervisor so that it would be easy for the enumerator to get additional questionnaires, if necessary.

Illustration: (See ANNEX 3 for the format of the form for reproduction)

Adm. Form MAC-1

(TITLE BOX)		Sender: <u>Specify Office/name of sender</u>	
Administrative Control Form (To be accomplished in duplicate, retain 1 copy; receiver, 1 copy)		State/Division: _____	
		District: _____ Township: _____	
Date Sent: _____			
Item/Description	Unit	Quantity/ Volume	Remarks
(1)	(2)	(3)	(4)
FORM 2003 MAC- 1	pc.	120	O.k.
Ballpen	pc.	120	Only 119 pieces
Flat pad	pc	120	Only 100
Received by: _____ Designation: _____ Date Received: _____			

In the above illustration, the quantity claimed to be sent is lacking in number. In cases like these, there should be some feedback given to the sender so they would know and be more careful next time in counting.

The same form is used when submitting accomplished questionnaires. The receiver is the supervisor and the sender is the enumerator. One copy is always retained by the sender and another copy to the receiver.

6.4 Preparation of Area Assignment

After the determination of the number of enumerators to be deployed and the grouping of these enumerators under one supervisor, the next activity to be done is to prepare the area assignment of the enumerators and supervisors. Use Administrative Form MAC-2 for the list of personnel and their corresponding area assignment. Do not forget to copy-furnish the Director General through the National Project Director not later than March 15, 2003.

The listing of personnel should be by Team. Team 1, then the Supervisor 1 and enumerators under him and their corresponding village assignments, then Team supervisor 2, and so on. Each supervisor should be aware of their ID number so that in making reports, there is no need to mention about names of people but only Team numbers and Supervisor Number and Enumerator Number, to be more systematic in reporting and monitoring the progress of field operation.

Illustration: (No actual data available, so illustration is hypothetical)

Adm. Form MAC-2 (See ANNEX 6 for the form for reproduction)

(TITLE PAGE)			Geographic Identification:			
DEPLOYMENT OF PERSONNEL			State/Division: <u>State No. 1</u>			
(Accomplish in quadruplicate, send 1 copy to DG thru: NPD, 1 copy to Division Head and 1 copy to Township Officer)			District: <u>1</u>			
			Township: <u>1</u>			
Team ID No.	Supv ID No.	EN ID No.	Name	Village Tract	Code	Village (Write code after name of village)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1			Team No. 1			
	1		Team Supervisor No. 1	Vill tract 1	001	
				Vill tract 2	002	
		1	Enumerator No. 1	Vill tract 1		Village 1 & 2 (01, 02)
		2	Enumerator No. 2	Vill tract 1		Village 3 (03)
		3	Enumerator No. 3	Vill tract 1		Village 4 (04)
		4	Enumerator No. 4	Vill tract 2		Village 5 (05)
		5	Enumerator No. 5	Vill tract 2		Village 6 & 7 (06,07)
2	-	-	TEAM NO. 2			
	2		Team Supervisor No. 2	Vill tract 3	03	
				Vill tract 4	04	
		6	Enumerator No. 6	Vill tract 3		Village 8, 9 (08, 09)
		7	Enumerator No. 7	Vill tract 3		Village 10 (10)
		8	Enumerator No. 8	Vill tract 4		Village 11 (11)
		9	Enumerator No. 9	Vill tract 4		Village 12-14(12,13,14)
3	-	-	TEAM NO. 3			
	3		Team Supervisor No. 3			

6.5. Preparation of Enumerator's and Supervisor's Kit

After the Deployment of Personnel or area assignment is done, the enumerator's kit has to be prepared. Since at this stage, the supervisors are already identified, they can assist the township officer prepare the Enumerator's Kit for the training. Each supervisor as well as enumerator should have a kit. The only difference in the kit of the supervisor is the Supervisor's Manual. In the case of the first level and second level training, the kit contains an additional manual, which is the Field Operations Manual.

Each enumerator should have an Enumerator's Kit containing the following:

1. Map of the village showing the location of the houses.
2. Pencil, blue ball pen and eraser.
3. Folder with clip to put questionnaires.
4. Flat pad to write on when interviewing.
5. Coding sheet where appropriate codes to be used are written.

6. Plain papers for scratch.

The enumerator is encouraged to bring his own calculator to facilitate computations of area of parcels, especially if there are many small parcels to account for.

6.6 Convene the Census Coordinating Committees

One month or two months prior to the conduct of the census operation, the National Agricultural Census Coordinating Committee (NACCC) shall be convened by the Chairperson who is the Minister of the Ministry of Agriculture and Irrigation. The responsible person to convene the NACCC is the Executive Officer in the person of the Department head, the Director General to be assisted by the National Project Director. Some publicity materials should be distributed to the members of the Committee. Basic census materials like the different questionnaires and the Enumerator's Manual shall be distributed for the member's information. As mentioned in Chapter 4, the convening of the NACCC is to solicit the cooperation of the members to support the census operation of whatever form their agency can contribute to make the census operation successful, especially the Department of Livestock and Veterinary and the Department of Fisheries, who are also major stakeholders in this census. This meeting should be covered by the media to drum up interest on the forthcoming operation. Food security is one of the main goals of the nation and the census of agriculture will be able to provide the necessary data to know the resources of the country on food production not only from the land but from water and human resources as well.

Similarly, the state/division census coordinating committees down to the township level should also be convened for the same purpose as the NACCC is being convened. The point persons are the officials of the SLRD field offices from the division head down to the township level.

Chapter 7

SUPERVISION AND POST-ENUMERATION ACTIVITIES

The enumeration phase of the Myanmar Census of Agriculture is the most crucial phase of this gigantic undertaking. Thus, the collection of important data for crops, livestock, household fishing and aquaculture shall be monitored closely by officers of SLRD to produce good quality data. During data collection, the enumerators play a vital role in collecting reliable and accurate information but without your vigilance, this vital role of the enumerator will go to naught. Therefore, it is incumbent upon all officers to act your important role in this undertaking. The success of the field operations in the area of your jurisdiction hinges on how you direct and monitor the implementation of the work plan in your area.

7.1 Field Officers' responsibilities during enumeration

7.1.1 General Role of the Supervisor

Generally supervisors from the first line up to the highest ranking supervisor who is the division head would have to do the following activities while field operation is in progress.

- 1) Supervise all the enumerators so that they follow the instructions as written in the Enumerator's Manual;
- 2) Help and solve the problems that the enumerators encountered in the course of enumerating from house to house;
- 3) Check or verify the accomplished forms submitted by enumerators for completeness and consistency of entries as soon as possible so that errors that are detected early cannot be repeated;
- 4) Go to a household selected by a supervisor at random and ask some questions to the same respondent. This will provide supervisors a venue for checking and controlling the enumerators who are doing very well and those who are not doing very well;
- 5) Monitor closely the completion of field operation within the set time frame;
- 6) Higher officials should see to it that the various levels of supervision is carried out accordingly.

7.1.2 Responsibilities of the Township Officer

The Township Officer is the second line supervisor from the position of the enumerator, therefore, his responsibility in the implementation of the census work plan is heavy. He is responsible for the following:

- 1) Convene the Township Agricultural Census Coordinating Committee one month or two months before the conduct of the census;
- 2) That the first line supervisor who is the team leader is always with his team of enumerators during the entire duration of enumeration in their areas of assignment;
- 3) That the enumerators are enumerating according to the concepts prescribed in the enumerator's manual;
- 4) That the team is reporting to work in their assigned area everyday until all households are enumerated;
- 5) That the team is covering the correct physical boundary of the village tract/ward or village/block, as the case may be;
- 6) That the team supervisor has allocated the questionnaires in accordance with the allocation plan and used Adm. Form 2003 MAC-1 for the purpose;
- 7) That he shall provide additional questionnaires as soon as needed from his reserve and if not enough to get from the office of the district officer for additional questionnaires as reserve;
- 8) Constantly monitor the total number of households enumerated in each village and compare this number with the listing conducted in March-May, 2003. If the listing in 2003 is much less than what is being enumerated, there may be a shortage of the forms. He should anticipate such problem. On the other hand, if the enumerator is enumerating much less than what was listed, investigate the reason why. This may lead to under coverage of the census if there are many holdings that are not enumerated;
- 9) That the enumerators are accomplishing the prescribed average daily accomplishment as reflected in their Accomplishment Report Form, Administrative Form MAC-3;
- 10) That the Township Officer shall see to it that the enumeration of special holding, if assigned to the enumerator is being carried out properly with the control form being accomplished;

- 11) That the accomplished questionnaires being submitted to the Team Supervisor is being edited, sorted and compiled according to instruction, ready for transmission to the designated Data Processing Center (DPC);
- 12) That as soon as enumeration of several village tracts in his township is completed, the township officer shall transmit the questionnaires on a staggered basis to the designated Processing Center;
- 13) That he shall submit a final report to the DG through the NPD about the census operation in his township providing summary statistics compiled by village on the number of holdings according to the type and making a report of unused supplies and census materials not later than one month after the end of enumeration.

7.1.3 Responsibilities of the District Officer

The District Officer is the point person in implementing the census work plan in the different townships under his jurisdiction. His role in this field operations is to oversee the overall conduct of the Census of Agriculture in his area of supervision. Myanmar has different ecological terrain. The district officer, therefore should focus in monitoring the major activities in the district which may not be a major activity in other districts. For example, the district is along coastal area, therefore, most households are engaged in fishing and aquaculture. But the agriculture portion should not be neglected. This is also true to districts that are purely agricultural and fishing may be a minor activity but this should not be neglected. This is also true in places where they have herd of livestock going around the village. These herds of livestock must be included. Furthermore, the district officer should be closely monitoring the number of households being enumerated in the villages/blocks, village tracts/wards or even in townships as a whole and compare them with the 1983 Census of Population. (Appendix Table 2 has the data by township). If the total household listed in a village is much less than in 2003, visit the village and try to assess whether or not there is under-enumeration. This evaluation work is very important considering that this census does not only produce agricultural statistics but also fishing activities and urban and rural population covered by the MCA 2003.

The specific responsibilities, therefore, of the district officer are as follows:

- 1) Convene the District Agricultural Census Coordinating Committee one month before the conduct of the census operation;
- 2) Monitor the accomplishments of each township under his district in the implementation of the census work plan;

- 3) Evaluate the reliability, accuracy, or acceptability of the population data being gathered by comparing the result with the 1983 Census of Population since this is the only data set by which comparison can be made. The 1993 Census of Agriculture may not be useful in validating the MCA 2003 results because the former was done on a sample basis with very small sample size at the township level;
- 4) Responsible in the allocation of questionnaires and manuals to the different townships in his area of jurisdiction. Even if he is not directly responsible in the distribution, it is his responsibility that the questionnaires required are received by the different townships;
- 5) He is responsible in the preparation of the deployment of personnel for the field operation. He has the authority to transfer some SLRD employees from one township to the other depending upon the need, subject to approval of higher authority during the census operation;
- 6) Conduct information campaign for the cooperation of the farmers, fisher folks and the entire district population to accommodate the enumerators who will visit their house from October 1, 2003 to November 15, 2003; and,
- 7) Make progress report to the division head periodically as required.

7.1.4 Responsibilities of the State/Division Head

As commander-in-chief of an army in a division, the Division Head is the overall in-charge of the census operation in his division. Whatever is the result of the operations in all the townships and districts under his command, he is fully responsible. This is what they term as "Command Responsibility." Therefore, it is the task of the division head to oversee the overall field operations of the state or division of his jurisdiction. He has to set a good monitoring device and feedback mechanism so that problems encountered in the field can be solved at the earliest possible time.

Foremost, the division head has to set up, organize and convene the Division or State Agricultural Census Coordinating Committee as a means of eliciting the cooperation of all government officials as well as civic organizations in assisting in the information drive to carry out the census plan. This should be done as soon as possible.

The Division Head shall also conduct some spot checks so that he can see for himself the real progress of enumeration work. He has to visit also the processing center where the accomplished questionnaires are being processed to keep tab of the processing aspect of the census.

Report to the Director General, through the National Project Director periodically on the progress of census work.

7.2 Submission of Accomplished Questionnaires to Data Processing Center

7.2.1 Regional Data Processing Center

There are four regional data processing centers to be set up to process accomplished census questionnaires. These are as follows:

- 1) Headquarter - Agricultural Census Office (ACO)
- 2) Yangon Division - Yang
- 3) Shan (South) State - Taunggyi
- 4) Mandalay Division - Mandalay

Each field officer of SLDR should be aware of where to ship the accomplished village tract questionnaires. The designated Data processing Centers where questionnaires are to be sent by divisions/states are as follows:

Headquarters-ACO Data Processing Center:

STATE/DIVISION	Total Households	
	2002 (SLRD)	2003 Projected Households*
Total	1,957,079	2,943,414
1. Bago (West)	375,544	468,066
2. Bago (East)	333,659	516,697
3. Mon	225,603	403,640
4. Kayin	66,893	226,475
5. Ayeyarwaddy	955,380	1,328,536

*/Refer to Appendix Table 2.

Yangon Division Data Processing Center:

STATE/DIVISION	Total Households	
	2002 (SLRD)	2003 Projected Households*
Total	709,744	1,135,977
1. Thanyintharyi	107,954	238,896
2. Rakhine	342,370	552,695
3. Yangon (Rural area only)	259,420	344,386

Mandalay Division Data Processing Center :

STATE/DIVISION	Total Households	
	2002 (SLRD)	2003 (Estimate)*
Total	2,262,102	3,345,650
1. Mandalay Division	763,238	1,184,956
2. Kachin State	135,827	203,020
3. Sagaing Division	687,154	1,037,951
3. Magway	608,140	835,603
4. Chin State	67,743	84,120

*/Increase of 2%.

Taunggyi, Shan (South) Data Processing Center:

Shan (South), Shan (North), Shan (East), Kayah

STATE/DIVISION	Total Households	
	2002 (SLRD)	2003 (Estimate)*
Total	403,704	411,779
1. Shan (South)	166,128	169,451
2. Shan (North)	174,789	178,285
3. Shan (East)	42,941	43,800
4. Kayah State	19,846	20,243

*/Increase of 2%.

7.2.2 Batching of Questionnaires

The accomplished questionnaires in the different townships must be sent to the designated processing centers. The township officer will be responsible in sending the accomplished questionnaires in accordance with the following procedure:

1. The questionnaires must be batched according to the following arrangement and order:

FORM 2003 MAC-2 AGRICULTURAL HOLDING QUESTIONNAIRE:

- a) Accomplished questionnaires of Form 2003 MAC-2 Agricultural Holding Questionnaire must first be arranged consecutively by Village in accordance with the Holding Control Number (HCN).
- b) Then stack together the arranged questionnaires of all the villages in one village tract, arranging them sequentially according to the code of the village from 011 or 012 as the

case maybe (whether urban or rural), with the lowest code at the top of the file by village.

- c) Prepare a list of the villages with their corresponding code using Administrative Control Form starting with code 001 for village tract and its corresponding villages also arranged from 011 to N1. In recording, follow the illustration below:

Illustration on how to record in Administrative Control Form:

Title Page (Accomplish is duplicate, retain 1 copy, send to receiver 1 copy)		Identification particulars	
Item/Description	Unit	Quantity/ Volume	Remarks
(1)	(2)	(3)	(4)
FORM 2003 MAC -2	Codes	No. of Questionnaires	Township 001
1. Village Tract 1	002	250	
a. Village 1	012	80	HCN 1-80
b. Village 2	022	120	HCN 1-120
c. Village 3	032	50	HCN 1-50
2. Village tract 2	002	198	
a. Village 1	012	23	HCN 1-23
b. Village 2	012	165	HCN 1-165
and so on			

Take note that all villages end in 2 for the third digit code. This code represents that this is a rural area.

- d) Do the same procedure for all village tracts. Then set aside and continue doing the same procedure for the Wards, if the township has wards.
- e) After recording all the MAC-2 questionnaires in the control form, you are now ready to batch them. In the above example, the batching should be by village. Use the flat pad to bind the questionnaires by village but be sure to write the name of the village and its code on the folder or pad. Tie the questionnaires securely with the ribbon provided in the pad or if ordinary folder is used, tie the batch with straw string or cloth string so that it will not loosen.
- f) If the township is big having many village tracts, more than 50 like in Magway township aside from the wards (14), arrangement can be made with the Data Processing Center that partial

shipment shall be made to have more working space in the office.

- g) The control form should be prepared per shipment. If one shipment involves only the wards, then the control form that accompanies the shipment should exactly describe what is being shipped.
- h) After controlling MAC-2 questionnaires, go to the other questionnaires with some deviations in the procedure.

FORM 2003 MAC-3 COMMERCIAL LIVESTOCK AND POULTRY QUESTIONNAIRE

- a) Arrange all the questionnaires of commercial livestock and poultry farms by village arranged sequentially using HSN (Household Serial Number). At this point, the HCN should have already been numbered in the Listing of Household Form for the entire township. If this is so, then arrange the questionnaires according to their HCN as numbered in the Listing of Households, FORM 2003 MAC-1.
- b) In a separate flat pad, put all the questionnaires arranged according to the sequential order of HSN or HCN, as the case may be. Batching will be for the entire township. Use Administrative Form MAC-1 to control the number of questionnaires to be placed at the top of the bound file.
- c) Set aside the batched commercial livestock and poultry questionnaires. Be sure the proper identification on the cover page, which is a folder of a pad. Tie the batch also securely.

FORM 2003 MAC-4 HOUSEHOLD FISHING QUESTIONNAIRE

- a) In fishing villages, where, there are many households who are engaged in fishing, the numbering of HCN should be by village tract. Otherwise, the same numbering of HCN is done like MAC-3.
- b) Prior to the conduct of the census, the listing sheet where the households engaged in fishing were recorded may already have an assigned HCN, starting from 1. This HCN should have been used in the ID portion of the Fishing questionnaire. If this is so, then use this HCN to arrange the accomplished questionnaires.
- c) Put all the Household Fishing Questionnaire into one batch and tie them with a string but cover the questionnaires with a

folder or a flat pad. Do not forget to put identification marks on the cover.

- d) Set this batched fishing questionnaires aside. Go to the last type of questionnaire, FORM 2003 MAC-5

FORM 2003 MAC-5 HOUSEHOLD FISHING QUESTIONNAIRE - Do the same procedure as in the previous instructions for MAC-3 and MAC-4.

2. Put all the batched questionnaires in a box or sack arranged according to the order of the code of the village tract/village and by type of questionnaire.
3. Prepare a preliminary summary of statistics by compiling the contents of the Administrative Control Number to be submitted together with the shipment.

At the Data Processing Centers, the same procedure in the batching of questionnaires in the verification of the shipment should be followed.. Use the control sheets found at the top of the batched files. If the batch verified is complete, write an O.K. on the right hand corner of the control form.