

Renewable Natural Resources (RNR) Census 2009

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1. Background

The Ministry of Agriculture will be conducting its nationwide second Renewable Natural Resources (RNR) Census in 2009 for the production year 2008. The first census was conducted for the production year 2000 in 2001 which has provided baseline indicators for preparation of the first ever decentralized geog (sub-district) based 9th Five Year Plan and been serving as the baseline data bank for the RNR sector until now. Although, the initial plan was to carry out the RNR census after every 5 years, it could not be done due to limited financial and human resources capacity.

During the last decade, various development initiatives have taken place in the RNR sector including activities related to poverty alleviation and food security. Owing to these developments, the RNR census 2000 results are outdated and most of the data generated from annual sample surveys do not provide comprehensive coverage and also lacks quality. During the 10th plan preparation process, one of the bottlenecks encountered was the unavailability of updated and reliable baseline data, which are prerequisite to proper planning and benchmarking. Therefore, it has become very crucial that we now embark on the already overdue second RNR census. The result of this second census will supersede all the existing inconsistent and misleading data and provide consistent, valid and reliable baseline and time series data for the RNR sector.

The Second RNR Census 2009 will be coordinated by Policy & Planning Division (PPD) of the Ministry of Agriculture (MoA) in collaboration with the technical departments of agriculture, livestock, forests and information communication services.

2. Objective

The main objectives of this census are as follows:

- Provide basis for development and improving the ongoing agricultural statistical information system in the country.
- Provide updated and reliable statistical information on RNR activities at national, dzongkhags and geogs level for efficient monitoring, planning and policy making.
- Enable an efficient study of small holdings communities (which is the case in Bhutan) to facilitate government plans and programs to assist small farmers effectively.
- Provide baseline data for monitoring of millennium development goals (MDGs) particularly poverty and food security situations and
- Facilitate the ongoing Royal Government's effort to streamline information sharing, monitoring and evaluation of planned development activities through

the planning & monitoring system (PLAMS) initiated by the Gross National Happiness Commission (GHNC).

3. The coverage and design of the census 2009

As the word “census” implies, it is a complete enumeration of all households in the country engaged in agricultural activities (agriculture, livestock and forestry). The agricultural farming households list from the agricultural households’ database maintained by the department of agriculture will be used as the ultimate unit for data collection. The enumeration will be done through interviewing the households using a set of structured questionnaires covering land holdings, land tenure, crop and livestock productions, forest productions and utilizations, agricultural inputs, marketing, availability of labour, constraints and potentials.

The field RNR extension staff posted in the geogs will do the enumeration under supervision of their sector heads and assistant heads in their respective dzongkhags.

4. Census Steering Committee

The Heads of the Departments / Divisions within the MoA will form the Agricultural Census Steering Committee. The main responsibilities of the committee are overall planning and direction of the census which involve approving the work plan, scope and coverage, methodology, questionnaires, manuals, pre-test, tabulation plan, data processing and data dissemination, logistical needs, personnel and budgetary requirements. The committee would also liaise with other agencies on matters pertaining to the census as and when required. The committee would start functioning quite ahead of the census implementation and cease to function after the dissemination of the final census report.

5. Census Working Group

A Census Management Unit will be instituted at the PPD, MoA to serve as an implementing arm of the committee. The Head of the Information Management Section (IMS), PPD along with four other heads of departmental IMS will form the core working group. Under the supervision of the steering committee, the group will work closely with RNR officials in the *dzongkhags* (districts) and *geogs* (sub-districts), researchers and other agencies involved in producing related information.

6. Census staff

The Head of the IMS, PPD who is also the team leader for the census-working group, will be the National Census Coordinator. The responsibilities of the census coordinator will comprise all activities related to financial management and coordination of workshops/trainings including logistical arrangements.

The census staff would comprise of staff in the IMS, PPD. The responsibilities of the census staff are planning technical aspects of data collection which involves designing of questionnaires, developing methodology and all required technical documents, training field staff, monitoring field operations, designing tabulations and analysis plan, analyzing data and drafting the final report.

7. Dzongkhag Census Coordinators

One of the three RNR Sectors heads in every dzongkhag will be appointed as the Dzongkhag Census Coordinators. Their mandates will be to oversee the census activities in their respective dzongkhags and liaise with the National Census Coordinators.

8. Supervisors

Supervision of field enumeration is an essential requirement for the success of the census. Supervision helps prevent carelessness and permits the early detection of errors that can be corrected while the enumeration is still in progress.

The dzongkhag RNR sector heads and their assistants will supervise the field enumeration and provide technical guidance as required within their respective dzongkhags. They will be accountable to Dzongkhag Census Coordinators.

9. Enumerators

Appropriate field enumeration is the key to the success the agricultural census. Enumerators familiar with the local area, agricultural system and social conditions will have less difficulty in finding respondents and making a proper recording. In the past high schools and college students were recruited as enumerators but some of them were found to have faced difficulties in communicating with the respondents, the farmers. Considering the past experiences, this time, the existing RNR extension staff at the dzongkhags and geogs will be recruited as the field enumerators. They are agricultural experts, tactful and can easily converse with the respondents in the local dialect.

10. Data Entry

Data entry into the database will commence soon after the completion of the field enumeration. People with computer operation background will be recruited for punching the data into the database. They will be provided with trainings on the database operations and trouble shootings.

11. Census questionnaires

The census questionnaire is the most basic documents in the census programme. Any deficiencies in the questionnaire design will lead to incomplete and inaccurate data collections. Therefore, the decision on the scope and coverage of the census has

to be finalized prior to designing of the questionnaires. The questionnaire developed for RNR census 2000 would be using as the basis for developing questionnaire for RNR census 2009.

12. Census database

Designing of database will take place in parallel with the designing of the questionnaires. The questionnaires used for pre-testing would be used for pre-testing the database. A consultant from the local IT Company would be hired for the development of the database.

13. Training programme

Adequate trainings will be provided to census enumerators and supervisors on the concepts and definitions, usage of questionnaires, interviewing methods and recordings. They will also be taught on ethical issues which is very important for every enumerator to observe while interviewing respondents. Data punchers will also receive trainings on database operations and trouble shootings.

14. Census reference period

The calendar year is usually most suitable reference period as the respondents find it much easier to think of their agricultural activities undertaken during the year. Therefore, the reference calendar year for RNR census 2009 will be 2008.

15. Timing for field enumeration

It is proposed that the census be conducted during the month of February and March. During these months, farmers usually have not much work on the farm and the extension agents have lesser extension activity as compared to other months of the year.

16. Duration for field enumeration

It is estimated that it will take about 15 days to carry out the agricultural census with existing strength of 600 extension agents. The number of households to enumerate is assumed to be about 65000 including *lhakhangs* and *shedrag*.

Assuming that we have about 600 enumerators and 65000 households to enumerate, then, each enumerator will need to enumerate about 109 questionnaires (i.e. $65000/600$).

If 10 households are enumerated per day (PHCB did on average about 15 questionnaires per day), it will take about 11 days to complete the census.

Including the time that will be required for revisits (absent respondent), validation and time taken to walk to remote areas, it is estimated that about 15 days will be required.

17. Budget estimates

Cost estimates for RNR census 2009

Activities	Nos required	Days	Rate	Cost	Remarks
1. Stationeries and kids					
Questionnaires (printing charges)	80,000		15	1,200,000	
Census bags (cost)	650		300	195,000	
Note books and pens (sets)	620		50	31,000	
Pencils for enumerators (cost)	700		5	3,500	
Sub total				1,429,500	
2. Training programme					
Training of enumerators (DSA)	600	3 days	500	900,000	
Training of data punchers (DSA)	20	5 days	200	20,000	
Working lunch & Tea / snacks	620	8 days	300	1,488,000	
Sub total				2,408,000	
3. Daily subsistence allowance (DSA)					
DSA for enumerators	600	15 days	700	6,300,000	estimated with mileage, porter and pony
Census staff movement	8	25 days	500	100,000	
Data entry (persons)	20	120 days	200	480,000	
Sub total				6,880,000	
4. Expenses for others					
Database development	1			100,000	
Consultation workshop				20,000	
Hall + computer hire (data entry)	20	120 days	1,000	2,400,000	
Publication (500 each for dzongkhag and geog level)	1,000		100	100,000	
Transportation				400,000	
Contingency Budget (5%)				582,000	
Sub total				3,602,000	
Grand total				14,319,500	

Ngultrum: Fourteen millions, three lakhs, nineteen thousand and five hundred

17. Census work plan

Activities	2008											2009												2010	
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	
Procurement of Budget	■	■	■	■	■	■	■																		
Sensitization works								■	■																
Prepare draft questionnaire				■	■	■																			
Consultation workshop							■																		
Steering Committee formation							■																		
Working group formation							■																		
Pre-testing of questionnaire								■																	
Finalization of questionnaires								■																	
Database development									■																
Preparation of census manuals									■																
Printing of manuals									■																
Procurement of stationeries & kids									■																
Training of Enumerators										■															
Distribution of questionnaire										■															
Recruitment of data punchers										■	■														
Training of data punchers										■	■														
Field enumeration											■	■	■												
Collection of completed questionnaires to PPD												■	■												
Data entry														■	■	■	■	■							
Data processing analyses																		■	■						
Presentation of census results																				■					
Drafting of census publication																					■				
Finalization printing of publications																						■			
Dissemination of publications																							■	■	

The first RNR census was conducted in 2001 for the production year 2000. Initial budget allocation was 11 + millions but actually ended up expending about 12 + millions.

For the RNR census 2009, the expenditure has been estimated to about 15 millions which will be met from the DNRM Component's work plan for the fiscal year 2008-09.