Mongolia - Labour Force Survey 2002

National Statistical Office of Mongolia

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Sampling

Sampling Procedure

The sampling frame derived from the Census of Population 2000 was used in the survey design. The institutional facilities such as hostels, army barracks, boarding houses, etc. were excluded from the frame and a truncated frame comprising ordinary households was prepared. Considering the socio-economic stratification of the main items canvassed through the survey it was considered that Mongolia should be classified into urban, rural and regional stratifications. Accordingly, Mongolia was divided into urban and rural areas and Ulaanbaatar, Central, East, West and Khangai regions. A two stage stratified random sampling design was adopted with baghs (census enumeration areas) as primary sampling units (PSUs) and households as secondary sampling units (SSUs). The frame which had baghs grouped by district and province in effect provided an implicit stratification for the PSUs for the probability proportional to size systematic random sampling procedure adopted in the selection of the PSUs. In order to capture seasonal variations in labour supply and demand a two stage stratified random sampling design was adopted to enable the preparation of estimates for 9 strata comprising the capital city of Ulaanbaatar, and the urban and rural sectors of the 4 geographic regions into which the country is divided. The survey sampled 3,200 households or more than 12000 persons in each quarter that was sufficiently large for the preparation of statistically reliable estimates on key variables based on the data from the 4 quarterly rounds. The questionnaire was designed to capture labour supply and demand under both currently active and usually active concepts based on a short reference period of 1 week before the survey and a long reference period of one year considering the large proportion of the working population that was engaged in agriculture and livestock production activities.

Deviations from Sample Design

None reported

Response Rate

The survey sampled 12,800 households out of which 12787 responded to the questionnaire, thus achieving a response rate of 99.9%. The sample population enumerated through the survey was 49,948.

Weighting

The design weights are used to compensate for differences in the selection probabilities. The weight for the PSU is inversely proportional to its selection probability.

See the details information on the sample weighting in Appendix 3 of Main Report that is attached as an external resourse.

Questionnaires

Overview

The questionnaire was designed to produce data and information to achieve the objectives, scope and coverage described earlier. In designing a questionnaire, the currently active and usually active concepts were used and child labour and child activities module was integrated as the last section of the questionnaire. The questionnaire was completed by trained interviewers who visited all sampled households to take face to face interviews and collect comprehensive information on the economically active and economically inactive population. A reference period of 7 days preceding the survey was used in the currently active population section of the questionnaire to derive the activity status of the population of working age that was extended to cover children. Considerable attention was paid towards examination and identification of economic activities for an accurate assessment of the economically active population through an inclusion of activities undertaken in a predominantly agricultural subsistence economy.

Since the animal husbandry plays a dominant role in the economy of Mongolia, a long reference period or the usual status approach of measuring employment with a reference period of 12 months was used in identifying economically active status and recording the employment, unemployment and economically inactive status in the reference period of 12 months preceding the survey.

ILO/ IPEC had been interested in incorporating a child activities module in the labour force survey and offered to co-finance the cost of the survey. The child activity section was designed to measure the participation of children in economic and non-economic activities within and outside the household and illness and injuries related to work. Accordingly, in this section questions to canvass information on the participation of children aged 5-17 years in household chores, age at first employment outside the household, illnesses and injuries related to work was drafted and included in the questionnaire. Further the age cut off on questions on education and training and economic activity was also lowered to 5 years to enable the collection of comprehensive information on child activities.

Several drafts of the questionnaires were prepared and internally discussed and revised versions were prepared. The NSO finalized the questionnaire through extensive consultations with Steering Committee, various Ministries of the Government of Mongolia, representatives of trade unions and employers, and international agencies based in Ulaanbaatar. The draft questionnaire was pre-tested twice through field tests and the final version was prepared which is attached(See Annex 4). The following topics and items of information were canvassed through the survey.

A. Demographic Characteristics
a. Relationship to household head
b. Sex
c. Date of birth and age
d. School attendance, ever attended, current attendance
e. Highest grade/level completed
f. Literacy
g. Marital status

B. Labour Force Characteristics based on short and long reference periods
Current activities performed and time spent on them
a. Participation in identified economic activities during the reference week.
b. Total time in hours spent on identified economic activities during the reference week
c. Participation in identified non-economic activities during the reference week.
d. Total time spent on activities described in c above.
e. Activity status during the last 7 days.
f. Primary and secondary occupations under current status.
g. Duration of employment in primary and secondary occupations
h. Average number of hours spent on primary and secondary occupations under current status
i. Industrial and occupational attachments in primary and secondary occupations
j. Employment status in primary and secondary occupations
k. Sector of employment of the enterprise
l. Average number of hours worked in the primary and secondary occupations
m. Number of paid employees in the enterprise in the primary and secondary occupations
n. Earnings from primary and secondary occupations in cash and in kind
o. Availability for more work
p. Reasons for not working more hours

q. Duration of underemployment
r. Steps taken to find more work

C. Unemployment
s. Availability for work
t. Reasons for economically inactive status
u. How long had respondent sought work
v. Expected kind of work/occupation
w. Expected daily wage rate/monthly remuneration
x. Whether registered at Employment Registration Office
y. Period of registration
z. Steps taken to find work
aa. Duration of unemployment

D. Usually Active Status
bb. Activity status during the last 12 months
cc. Primary and secondary occupations during the past 12 months
dd. Industrial and occupational attachments in primary and secondary occupations during the past 12 months
ee. Duration of unemployment
ff. Steps taken to find work
gg. Employment status in primary and secondary occupations
hh. Average monthly wages and earnings during the past 12 months from primary and secondary occupations
E. Past Employment Record
a. Occupation, industry and sector in which the respondent last worked
b. Duration of employment in last occupation
c. Employment status in last occupation
d. Last date worked
e. Sector to which the industry where the respondent worked belonged
f. Main reason for leaving the last job/occupation
g. Main source of income support during the period of unemployment

F. Child Activities
a. Main types of chores performed in the household.
b. Current school attendance.
c. Reasons for not attending school full time.
d. Participation in any household economic activity.
e. Age at which the child first began to work.
f. Reasons for participation in economic activity.
g. Whether the child had engaged in any work other than in household economic activity and reasons for engaging in such work.
h. Whether the child engage in work under supervision by others.
i. Whether the child is satisfied with the working conditions.
j. Whether the child's occupation is stressful physically or mentally.
k Frequency with which the child had to work during evenings and night.
l Whether the child had fallen sick or was injured because of work.
m What sickness or injury from work has the child suffered.
n. Main items on which the child's earnings were spent.
o. The number of hours of free time per day available for recreation.

Data Collection

Data Collection Dates

Start	End	Cycle
2002-10-01	2002-12-31	First quarter
2003-01-01	2003-03-31	Second quarter
2003-04-01	2003-06-30	Third quarter
2003-07-01	2003-09-30	Fourth quarter

Data Collection Mode

Face-to-face [f2f]

DATA COLLECTION NOTES

Trained enumerators and supervisors collected data through face to face interviews from sampled households. The collection of data for the 1st Round of the survey was conducted between October -December 2002. The data collection was conducted on the 2nd Round between January-March 2003 and the 3rd Round during April -June 2003. The data collection on the 4th and final Round was undertaken during July- September 2003. Considering the workload involved and the time taken to retrieve the completed questionnaires from the field, each interviewer was entrusted with the task of canvassing data from 50 to 60 households in 5 or 6 sampled baghs (EA). As the LFS was designed as a quarterly survey much of the field work on the survey was concentrated in the 2nd month of the quarter. Considering the widespread migration of herdsman in the rural areas, it was decided to visit households 2-3 times. These safeguards made it possible to obtain completed responses from 12,787 sampled households in the all 4 Rounds of the survey.
Centralized training of field staff was undertaken for the first time in the LFS in any large-scale survey undertaken by the NSO. A comprehensive manual was prepared which embodied detailed instructions on how to admit the questionnaire and conduct the interviews and the concepts and definitions used in the survey were described in the manual. In cooperation with International Consultants, the NSO WG conducted a centralized training for enumerators and supervisors during the 6th October to 13th October, 2002 in Ulaanbaatar. During the training, under the guidance of WG, the enumerators and supervisors field tested the questionnaire in two districts of Ulaanbaatar city: Khan-Uul and Chingeltei.
Before finalizing the survey instruments, two pre-tests of the LFS, questionnaire and instructions for field operations were conducted in April and July 2002 by the WG of the NSO. The results of the pre-tests were discussed with the Working Group and some modifications in the wording and skip instructions were incorporated. The pre-tests were useful in preparing the draft questionnaire that was submitted to the users for their observations. The 2nd field test was conducted after obtaining the observations of the users and incorporating their suggestions. The 2nd test was useful in identifying a number of deficiencies in the questionnaire. The questionnaire was modified on the basis of the findings, modifications related to the wording of questions, changes in skip instructions, changes in response categories and codes.

Data Collectors

Name	Abbreviation	Affiliation
National Statistical Office of Mongolia		NSO

SUPERVISION

In each district a team of people was selected – one supervisor for the district, controllers (one controller per 5-6 interviewers) and interviewers (whose number depended on the number of clusters in the region). Coordinator provided overall supervision.
To ensure data quality the LFS and NSO management travelled to 13 aimags and Ulaanbaatar city to monitory the LFS data collection and provide instructions on further proper and due implementation of the survey. The mobilization of NSO staff attached to Provincial Statistical Bureaus had a positive impact as the statistical skills were upgraded through training and exposure to survey methodology including statistical concepts and definitions, classification and coding systems and cartographic work.

Data Processing

Data Editing

The data processing of LFS was organized at two levels. Data editing and validation, computer processing and preparation of tabulations being undertaken centrally at the NSO, while manual editing and coding, key entry and verification were undertaken at the provincial level. Checking the completeness of questionnaires, coding of questionnaires, range edit checks, simple consistency edits and electronic transfer of the keyed in data to the NSO were undertaken at the provincial level. The NSO computer staff were familiar with the IMPS software developed by the US Bureau of the Census and this software had been used both in population census and survey processing. Thus, LFS data entry programmes were prepared using IMPS and for range and consistency checks the CONCOR module was used.

Other Processing

For tabulation process used SPSS. After data processing the WG together with the Consultant made statistical analysis on selected indicators, compared some results with the ones of other surveys and census, data consolidation, error corrections etc. were undertaken. The sampling errors of selected estimates were computed using CENVAR module in the IMPS package.

Data Appraisal

Estimates of Sampling Error

As in any sample survey, the results obtained from the LFS are subject to sampling and non-sampling errors. The non-sampling errors arise as a result of imperfections in data collection, data processing and dissemination. These include errors that are introduced at the preparatory stage; errors committed during data collection including those committed by interviewers and respondents; and processing errors. In order to reduce these non-sampling errors several safeguards were adopted. Careful design of survey instruments, training and supervision of LFS staff deployed in data collection and processing, efficient operating procedures in data cleaning and data management, checking consistency and completeness of the tables that were extracted were some of the more important methods and procedures that were used in the survey. However it is known that non-sampling errors would be the major source of errors in the survey results, not withstanding the measures that were adopted in survey design and implementation. In view of the impracticality of measuring non-sampling errors, the total error calculation in surveys is restricted to calculation of sampling errors.

Sampling errors in surveys occur as a result of limiting the survey observations to a subset rather than the whole population. These errors are related to the sample size selected and sampling design adopted in the survey. In order to maintain these errors within acceptable levels, the efficient sampling design with the sample allocation described in Annex 3 (refer to the external resource of Chapter 12 of the Main report for more information) was adopted.

The sampling error indicates the extent to which an estimate from the survey would vary by chance, because only a sample of enumeration areas is included rather than all the enumeration areas into which the country is divided. The sample size and survey design had determined the magnitude of the sampling errors and in respect of some items the sampling errors were known to be high at the design stage of the survey.

IMPS package that was developed by the US Bureau of the Census was used in processing data from the LFS +CAM. Therefore, it was decided to use CENVAR which is the variance calculation module of the IMPS package to compute sampling errors of key aggregates from the survey. For each specified parameter and domain of estimation, CENVAR produces a tabulated output that provides the following measures.
- the estimated value of the parameter
- the standard error
- the coefficient of variation
- the 95 percent confidence interval
- the design effect (DEFF) and
- the number of observations upon which the estimate is based

It is common to allow an interval of either 2 standard errors or 1.6 standard errors in either direction around an estimate from a given sample as the possible range of sampling error. Under the 2 standard error criterion, the population value as estimated from the sample falls within the indicated range in 95 cases out of 100. Under the 1.6 standard error criterion, the probability drops to 90 cases out of 100 but this is still a reasonable basis for judgment for many analytical purposes. Estimates of sampling errors computed using CENVAR have 95 confidence intervals of 2 standard errors. The sampling errors of key aggregates are provided in Tables 84-91 (refer to the external resource of Chapter 12 of the Main report for more information).

As described in the users guide, CENVAR is designed for the calculation of the variances and uses formulae appropriate for stratified multistage sampling designs. The details of the two stage stratified sampling design used in the LFS +CAM including the stratification into 9 strata and sampling weights had been defined as required by the CENVAR system at the stage when variables corresponding to the sample design were specified. However, certain aspects of the sampling design such as the strong implicit stratification by aimag (province) soum(district) built in to the sampling design through the adoption of stratified circular systematic random sampling could not be specified in the CENVAR system. Thus, the sampling errors computed using the program and produced in the attached tables would probably overstate the width of the actual or true confidence intervals of parameters as well as the design effects of the sampling design.

Other forms of Data Appraisal

10 households were to be selected from every sample enumeration area in all strata in each Quarter, but due to non-response/ absence of sampled households the enumerated number was less than 10 households in a few enumeration areas.

Related Materials

Questionnaires

Questionnaire of LFS in 2002-2003

Title	Questionnaire of LFS in 2002-2003
Filename	LFS in english.pdf

Reports

MAIN REPORT of LFS 2002-2003

Title	MAIN REPORT of LFS 2002-2003
Filename	MAIN REPORT of LFS 2002-2003.pdf