Gender issues in the measurement of paid and unpaid work

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Introduction

The transition to a market economy which promotes the development of a private sector has necessitated considerable changes in the formal statistics information system. The data collection system such as census is becoming not enough to cover all economic sectors in Mongolia. Based on some surveys and estimates it can be perceived that the production and employment in the informal sector takes account for a considerable share in the Mongolian economy. However, they can not be proved yet by the current statistics. According to USAID funded "Informal Sector Survey" many people who were made redundant during the beginning and mid of 1990s shifted to the informal sector. About 30% of the employed population in Ulaanbaatar are in the informal sector. Another perception is that the majority of the employees in the informal sector are women. In the meantime the formal statistics of some social sectors reveal a visible gender gap. For example, women are outweighing men in terms of involvement in education while there is the other way round in employmentmale-65.2, female-59.4/

Thus, a pilot time use survey has been conducted by the NSO in the year of 2000 in effort to give some answers to the above mentioned hypothesis. The survey will be a big input to the expected employment survey. As well, the findings of the survey will provide useful information source for policy and decision makers and give rise to the development of current and future social sample surveys in a coherent and systematic manner.

The survey is an independent and pilot survey. But its findings can be sued in many sectors. Bearing this into mind the NSO has formulated the objectives of the survey as follows:

1. collect data on gender inequality and women's unpaid work;
2. collect data on employment and informal sector to come up with realistic assessment of employment

The main users of the survey data will be policy makers of the Ministry of Labour and Social Welfare and the NSO.

NSO is studying the possibility to conduct TUS in the next five years and include it into the national accounting system. The evaluation and demand by users in relation to this survey will be one factor to consider. Besides, time will be obviously needed to decide on whether to carry out such survey in future because the survey presents a new type of information for users.
 I would like to thank UNDP for funding the survey and assisting it to become a reality.

Design specifications of the survey and factors considered in decisions

Factors considered in deciding on the survey design

The following factors were considered in order to choose the survey design. They were:
* objectives
* location and zonal features
* education and literacy rate
* survey cost.

Objectives: Though being a pilot the current time use survey put the requirement to produce results by urban and rural areas so as to make the findings nationally representative. Thus, it covered the capital city, 7 aimags (provinces) and 15 soums.

Location and regional features: The territory of Mongolia is divided into different geographical zones within which the population reside spreadly. Therefore, location and zones should be represented in order to come up with the nationally representative findings.

Education and literacy rate: Literacy rate of the population is of big importance in the survey design. Taking into account of high literacy rate of the population a dairy was regarded as the best way to collect data. In the same time the minimum age limit was fixed at 12 with reference to the hypothesis which says that school drop out increases from the intermediate stage in secondary schooling. In doing so on average 3 persons from each household were estimated to be involved in the survey.

Survey cost: The need to cover all zones in the survey affected the increase in the cost. The total cost was 14000U$ which is not high compared to other sample surveys. 45% of the cost went to remuneration for households and transport. Giving 2U$ to each household as remuneration was the right step to increase the commitment and role of respondents. The participation of officers from NSO and its local branches without any overhead fees was a big contribution to saving the cost of the survey.

Data collection method

The data collection method was combinations of self-completed/recall interview which obviously required to use full time diary. The interval of time diary was 10 minutes. Besides the time diary an individual interview on education, marital status and employment of respondents was applied. Time diary included the questions of main and secondary activities, and context variables such as location, paid/unpaid and for whom. The context variables -paid/unpaid- and -for whom- referred to SNA activities.

Time sample

The seven days of a week were divided into the three parts and the same share of households were distributed to be interviewed in each day of a week. In other words, two third of the respondents were assigned to make two-day diaries and the one third of the respondents were assigned to make three-day diaries. Days of a week were grouped as follows:
1. Sunday, Monday, Tuesday
2. Wednesday, Thursday
3. Friday, Saturday

Sample design

The reference population of the survey is total households and population residing in Mongolia. The sample equals to 0.2% of the total households. Every respondent household member aged 12 and over should be covered by the survey. Those who were absent or sick during the survey were not covered by the survey.

The sampling design is a multi-stage sampling. The sampling units are:
- primary unit (PU) is a soum or duureg/district
- secondary unit (SU) is a bag and a khoroo
- tertiary unit (TU) is a household

Aimags, soums, districts were selected by the National Statistics Office. Small sample size and efficient use of available funds were taken as the main criteria for the sample selection. In selection of aimags and soums there were used six fuel price regions used for the Living Standard

Measurement Survey and there were selected 1-2 aimags and 2-4 soums which would represent each region. Soums were divided into urban and rural soums, in selection of soums representation of geographical zones was considered. The employment rate was considered in choosing of city and aimags' center. Six districts with largest population were selected in Ulaanbaatar. Bags, khoroos, households were selected by field supervisors using probability proportional sampling techniques. In choosing of bags, the field supervisors considered the abnormal days in survey period such as celebration, wedding, community work and any other activities involving mass. The overall sampling design combined a purposive and probability sampling approach.

A total of 1086 households with a split up of 686 from urban areas and 400 households from rural areas were covered by the survey. A total of 2753 respondents from these households were interviewed and filled in a time diary.

Activity classification

In order to analyze all the activities stated in the diaries, the combined classification and coding scheme were developed. The classification have been developed primarily based on the trial UN Classification of Activities for Time-Use Statistics and revised according to the Mongolia's specifics with three digits. It should be noted that the agricultural activities were included widely in the classification.

The questionnaires and classification of the activities were pre-tested in Ulaanbaatar City and Tuv Aimag. The pre-tested questionnaires, classifications of activities and instructions were revised and improved based on the comments of the pre-test.

Field operation

Data were collected using a full 24-hour diary as the main survey instrument through combined recall and self-completed diaries. The diary consisted of activities within 10-minute intervals. Diaries were completed during 2-3 days by respondents but interviewer visits the household on daily basis and reviews the diary and gives instructions where needed. Information related to household and demographic characteristics of the population are collected by interview using the household and individual interview questionnaires.

20 supervisors and 60 enumerators participated in the survey. There were 18 households per enumerator on average and the enumerator attended the households at least three times. Supervisors who played a vital role in conducting the survey in local areas were from NSO and the capital city branch.

Training for field supervisors and enumerators

The training for field supervisors and enumerators conducted at the following three levels:
-    at national level: training for survey supervisors and UB City enumerators;
-    at aimags level: training for field supervisors and enumerators who will work at aimags;
-    at soums level: training for enumerators who will work at soum level.

All trainings were conducted in accordance with training programs, instructions and regulations. Practical exercises were included in the training programs. Prior to the training, questionnaire, instructions, classification of activities have been distributed to the supervisors as well as to enumerators. In addition, there was given a home assignment to complete the diary by each of all participants and plus 1-2 members of their family. The first stage of the training was conducting discussion sessions on questionnaire and classification of activities. In these sessions, home

assignment was presented and questions raised during the completion of questionnaires were answered by trainers. At the second stage of the training, the participants worked on diary. During this training part participants self-checked the completed questionnaires, and worked on classification of activities and coding. Upon completion of the exercises, the evaluation test was given to the participants. Based on the evaluation test, the additional instructions were provided. At the final stage, additional training on survey administering was given to the supervisors.

Data collection

The survey started on 8th of April of the year 2000. The data collection is taken place from 9th of April to 23rd of April, 2000. Review and completed questionnaire collection from enumerators by field supervisors took place until the 1st of May 2000. Data collection from supervisors by NSO, coding, data entry took place to 20th of June, 2000. The participation of households and respondents in the survey was active. There was no any household among the selected households which did not participate in the survey, but there were respondents who were not present at the time of enumerator's visit.

Table 1.2. Respondents participation rate in the survey by residence and sex;

	Total	Of which:	
		Male	Female
Capital City	82.6	84.0	81.0
Aimags Center	84.9	85.0	84.8
Soums Center	78.4	82.8	74.0
Rural	80.8	82.6	79.1
Total	82.1	83.8	80.4

About 82.1 percent of the population aged 12 and above years old of all selected households were participated in the survey and completed the diary. The participation rate of the selected sample from urban is higher than that in rural. Among rural population more likely to appear a movement at the time of survey. It might be explained that the herders usually go to the "otor" seek for better pasturing land, busy with livestock breeding activities like go to make goats cashmere and wool in the spring. There is observed age differentials among respondents. In general, respondents aged 30-39 were more active in the survey (90.1 percent). In rural, the respondents aged 12-15 were much fewer than that in urban.

Constrains

It should be noted that during the data collection there were observed some problems. For instance, there was large snow storm in "Hovd aimag" during the survey period. There certain cases where incorrect completion of dairy, leave the diary somewhere, carry the diary from house to house, do not present during the enumerators visit and etc. Although these problems faced with supervisors and enumerators worked in rural "aimag"-s and "soum"-s the survey has taken place successfully. In general, literacy rate is high among the population of Mongolia that helped a lot to fulfill the survey objectives. It was also observed very common that the household members were helping each other to complete the diary. The role of supervisors and enumerators was very high during data processing. The supervisors and enumerators made records all the stated activities in the completed diaries.
The need for interviews due to the absence of a diary taking was faced to less than 10% of the survey participants.

Coding

After coded diary was used in the survey. The coding was one of hardest tasks of the survey. The quality of enumerators work was observed during the coding. That is why we involved field supervisors in the coding. Coding was monitored by the staff of NSO who are supervising the survey. During the monitoring there were identified quite number of mistakes made during coding. Thus, correction of coding was done additionally. In some cases the notes were incomplete, in some cases the notes were to detailed which caused delay of coding.

It became clear that making records was essential in coding. The common error in coding was including and coding unpaid assistance to others into SNA activities. The most questionable one was whether traveling activities for herd tending should be referred as traveling or production activities. After agreeing on referring it as production a considerable amount of amendment was done.

Assessment of design and implementation of data processing of time-use data

The amendment of the survey was done in two stages: prior to and post the coding. Supervisors did the first stage amendment while NSO officers in charge of the survey dealt with the second stage amendment. In both stages a direct amendment was not done in dairy. Instead, parts which needed edits were recorded in accordance with the special form. The NSO officers in charge of the survey decided whether to make or not the amendment. Coding was made by specially prepared coding persons rather than by computer. After the amendment was finalized the data was entered in computer which was followed by checking for error and correcting with the use of computer programming. Data entry and correction were made by IMPS while processing was done by STATA, ACCESS, VISUAL and BASIC.

Supervisors were mainly involved in coding and making amendments because they didn't need a long term training and experienced in data collection. Figures alone were used in TUS file so as to accelerate entry. 6 records were entered in one activity.

Tabulation plan for time use data

UNDP expert assisted with developing output tables. Activities were classed in 3 digits, however, output tables used 1 digit class which combined 3 digit class. The sample size of the survey also affected to make the above mentioned decision. The following domains were used in extrapolation of findings.

1. Basic domain: -sex; -location (capital city, aimag centre, soum centre, rural); -urban/rural
2. Domains at individual level: -age group, -employment status

Summary statistics:

- Average time spent on episode by reference population in a working day and one day off.
- Participant rate in a particular activity.
- Average time spent on episode by participants in a working day and one day off.
- Proportion of total time spent on episode in a working day and one day off.

Paid and unpaid work were shown by urban and rural and sex. Parameters and its sampling errors were estimated. National average was estimated using the weighted average based on the percentage of urban and rural population aged over 12.

Major tables

Main findings

80.1% of the working age population were employed not less than one hour in the last week
with the employment rate being relatively higher than that of official statistics (62.5). This is
explained by different methodologies used to draw the data. Official statistics is based on census
or household records and don't place limit of 1 hour in the last week..

Table 4. Employment rate of working age population, % in total working age pop
Source: Individual questionnaire

	Total		Women		Men	
	Employed	Unemp-loyed	Employed	Unemp-loyed	Employed	Unemp-loyed
Capital city	68.6	3.1	63.3	2.7	74.2	3.5
Aimag center	72.3	5.4	67.3	5.3	78.0	5.5
Soum center	78.1	6.4	74.4	5.9	82.0	7.0
Rural	99.0	0.0	97.9	0.0	100.0	0.0
National average	80.1	3.2	76.2	3.0	84.3	3.4

There is a 8 point difference in employment of women and men. But this is more to do with women's education, child caring and availability of suitable jobs for them rather than with the sexual discrimination. Employment is observed to vary by urban and rural areas.

Quite interesting findings are drawn from the survey data:

- The employment rate is high in rural areas with part time employment occupying almost half the rate. In other words, this is linked to high underemployment.

- The employment in rural areas is found mostly in the animal husbandry. The employment for establishments is low and there is almost no job opportunities except for animal husbandry in rural areas.

- The unemployment in aimag and soum centers is high and engagement in multiple jobs is also high.

The share of employees in the informal sector is slightly low than expected /14%/. Under this survey the following activities comprise the informal sector. They are SNA activities in the 24th and 31st chapters: - primary production activities not for establishment (excluding animal husbandry and crop farming), - services for income and other production of goods. Family based and individual activities in animal husbandry and cropping are left outside the informal sector.

The share of people in the informal sector in the total employed occupies 25.2% in urban areas and 8.5% in rural areas. This is 26.9% in Ulaanbaatar.

Secondary job engagement is 6.8% in a nationwide with being the highest or 14.1% in soum centers. People engaged in secondary jobs are usually employed with establishments and in the same time work in the informal sector, in agriculture as a unpaid family worker or self-employer.

The average employment hours per adult person is about 5.6 which is not satisfactory indicator. The survey reveals that the population's employment vary. In other words, the working hours of employees in the animal husbandry and informal sector vary.

36.6 % of children participate in family business. The overwhelming part or 78% of the these children are engaged in animal husbandry.

Table 9c. Average Time Spent on SNA and non-SNA activities per day per person, percent (working day)

Code	Activity	Urban		Rural	
		male	female	male	female
1-3	Activities in SNA boundary	22.7	18.4	34.3	22.7
1	Employment for establishment	17.4	14.7	3.7	4.9
2	Primary production activities not for establishment	0.7	0.6	29.5	17.5
3	Services for income and other production of goods	4.6	3.1	1.1	0.3
4-6	Activities in extended SNA boundary	9.2	16.7	8.8	24.0
0,7-9	Activities in Non-SNA boundary	68.1	64.9	56.9	53.3

Longer hour employment by males in rural areas is connected to seasonal character of animal husbandry. Spring time brings heavy load to herders such as rearing offspring's and exhausted animals and in summer time there is more diary work and milking which is usually done by females. Therefore, females work less hours than males do in spring time, but their working hours increase to equal or eve t exceed the hours of males.

Table11. The share of time spent on paid and unpaid work, %

	Urban		Rural	
	Men	Women	Men	Women
Total	100	100.0	100	100
Paid work	17.8	14.7	5.6	4.7
Unpaid work	82.2	85.3	94.4	95.3
Of which : Unpaid SNA act	2.0	1.5	27.4	16.6

Women spending much time on unpaid work depends on much time spent by them on expanded SNA activities. On the contrary, women in rural areas work more for establishments than men hence leading to their higher paid employment rate in SNA activities as opposed to men. About 2.5% of the total activities were spent on simultaneous activities. The most common combinations of simultaneous activities were Household maintenance-Massmedia use, Eating/drinking-Massmedia use, Personal hygiene-Household maintenance, Games and other past-time activities-Massmedia use, Eating/drinking- Social and cultural activities.

Dissemination and use of time-use data

At the present time, the preliminary report for this survey was completed and has not yet been released for publication. Although the preliminary result of the survey was distributed to major users, such as the NSO and the Ministry of Labour and Social Welfare. The final report will be distributed to all users in October 2000. No decision has yet been made to hold the data dissemination workshop.