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Measuring non-observed economy: informal and illegal**Non-observed economy of Mongolia****Prepared by Mongolia***Summary*

Non-observed economy of Mongolia presents the survey and the estimates of the size of non-observed economy developed by the National Statistical Office of Mongolia in accordance with the frameworks presented in the OECD Handbook for Measurement of Non-observed Economy and the 2008 System of National Accounts and the UNECE Survey of Non observed economy in National Accounts. The developed estimates take into account the recommendations of the 2008 SNA and the ILO Handbook in respect to the measurement of the informal sector and informal employment. The productions of goods for own final consumption is determined separately. The aim is to provide comparable information on the size of non-observed economy with that of other countries.

I. Introduction

1. The National Statistical Office (NSO) of Mongolia has implemented a number of projects to reflect the activities of the informal sector in the national economy. The inclusion of the estimates in the GDP was done step by step, in parallel with the efforts of other countries.
2. Since 1997, the estimations of the size of the non-observed economy have been made with the support of international organizations. The first survey was conducted in 1999 under the recommendations of the World Bank consultant Mr. Bill Bikales and the informal activities in retail trade sector (kiosk, small retailers operating on the street and market), transportation (taxi drivers), and food services were added to the official GDP of 2000 for the first time. Since this year, value added of the informal sector was estimated by extrapolation on the basis of CPI changes and number of people working with license.
3. The operators with unknown income, who are not required to report to the tax authority, were covered in the Establishment Census of Mongolia which was conducted in 2006 and databases of their activities were created. Based on the census results, the activities of those operators were classified by economic activities and their output reflected in the GDP estimate for 2006. Also, the previous years' calculations were updated according to the census results.
4. The following 5 surveys collected information on the informal sector and informal employment:
 - (a) "Informal sector survey, /by Bill Bikales/", which was conducted by USAID in 2000
 - (b) "Labour force survey (LFS), 2002-2003", which was conducted by NSO of Mongolia with the financial assistance of the ADB
 - (c) "Informal sector survey on transportation and trade sector" which was conducted by NSO with the financial assistance of the Science and Technology Foundation of Mongolia;
 - (d) Establishment Census was conducted by NSO in 2000;
 - (e) "Survey on Household unincorporated enterprises producing for the market (HUEMs), 2007-2008" which was attached to the annual "Labour Force Survey, (LFS)" conducted by the NSO with the financial assistance of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP).
5. The value added of the informal sector is calculated using above mentioned surveys' results and reflected in the official GDP. However, there are further needs to improve and update the associated estimations. It is also necessary to cover the other activities that are included in the concepts and frameworks of the non-observed economy in order to ensure complete coverage of the calculations.
6. Section 6.2 of the "National Program for Development of Official Statistics of Mongolia, 2011-2015" (approved with Resolution 59 of the Parliament of Mongolia of 01 December 2011) defines the objective "To improve the GDP estimation and its coverage, data quality and methods" and within this objective the sub-objective "To measure the non-observed economy of the country".

II. Concept and definitions

7. For the first time, the NSO of Mongolia has estimated the size of non-observed economy in the N1-N7 framework applying Eurostat tabular approach and the OECD “Handbook for Measurement of the Non observed Economy, 2002”, the “System of National Accounts, 2008” (2008 SNA) and the Survey of Non observed economy in National Accounts” which includes the EU and other UN countries practices.

8. The survey has been fully consistent with the 2008 SNA recommendations and ILO Handbook since the informal sector and informal employment were determined according to the framework as N1 and N5 types. Moreover, the N3 type which is the production of own final use was determined separately. In addition, this survey was conducted based on the previous survey’s methodology, so it could provide with the comparable information with other countries.

Table 1

The N1-N7 tabular framework of non-observed economy

Classification of NOE	NOE type
Underground production	N6 - Producers deliberately misreporting
Illegal production (drugs, prostitution, etc.)	N2 - Producers deliberately not registering – illegal
Informal sector production	N1 - Producers deliberately not registering – underground
	N5 - Registered entrepreneurs not surveyed
Household production for own final use	N3 - Producers not required to register
Other missed productive activities	N4 - Legal persons not surveyed
	N7 - Other statistical deficiencies

III. Sources and estimation methods

9. Within the framework of estimation of the non-observed economy of Mongolia, the NSO carried out several surveys and calculations. The Household unincorporated enterprises producing for the market survey (HUEMs) was conducted in 2012 at the national level and the survey results were used to determine the total production of the informal sector. In addition, the other types of non-observed activities such as illegal and underground production were estimated on an annual basis using the associated administrative data sources.

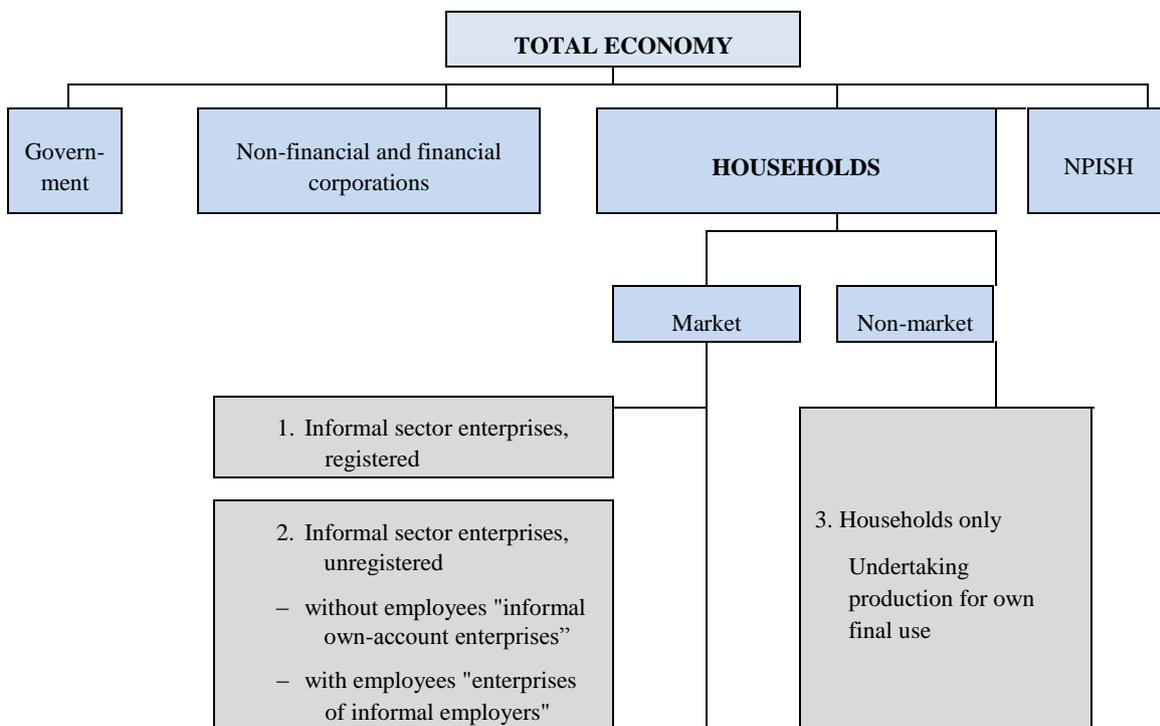
10. The NSO conducted the following surveys in accordance with the international framework (N1-N7) of the non-observed economy:

- (a) Survey of household unincorporated enterprises producing for the market
 - Survey of household unincorporated enterprises producing for the market, except agricultural and mining
 - Survey of artisanal mining
- (b) Survey on Experts opinion of intentional distortion of business accounting

(c) Estimation of illegal production.

A. Survey of household unincorporated enterprises producing for the market non-agricultural

Figure 1
Coverage of HUEM survey

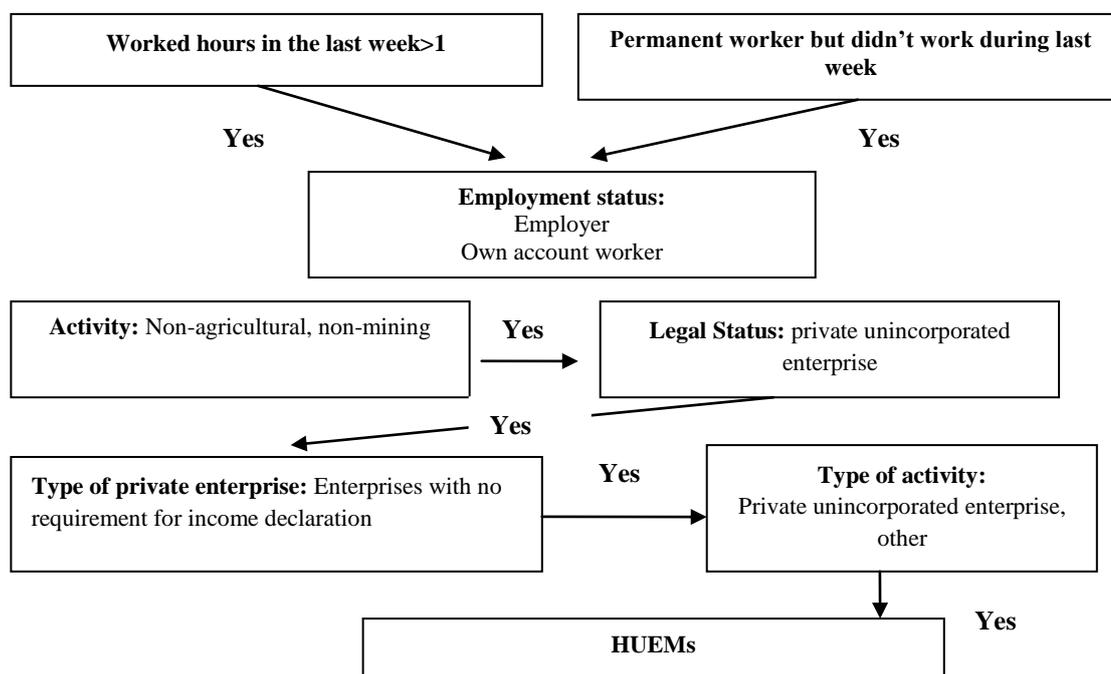


11. The HUEMs were conducted by the “1-2” method which was recommended by the UNESCAP and DIAL of France and has been implemented in countries such as Mexico, Peru, West Africa, Madagascar, China and Bangladesh since 1990. Agricultural and mining sector were excluded. This method generally has two phases which include sequential LFS and HUEMs.

1. Sampling in the HUEMs

12. The sampling of the HUEM survey was based on the sampling of the LFS. Household unincorporated enterprises were identified using the set of criteria presented in Figure 2.

Figure 2
Scheme for identifying HUEMs from LFS units



13. After all the HUEM were selected, the LFS weights were used directly.

14. For the agricultural sector, we consider to conduct a livestock census every year according to the statistical law of Mongolia and to estimate the production based on the census.

15. In order to develop a definition of HUEM we used the recommendations of the 2008 SNA:

(a) Household unincorporated enterprises: Non-agricultural producing units, not fully included in the official registration and social protection and at least selling or bartering some goods and services on the market are defined as HUEMs. They are usually small businesses and sometimes they are own-account workers. Most informal sector activities provide goods and services whose production and distribution are perfectly legal;

(b) An unincorporated enterprise: An unincorporated enterprise is a producer unit which is not incorporated as a legal entity separate from the owner. It covers not only producing units that employ hired labour, but also those that are owned and operated by single individuals working on own-account as self-employed persons, either alone or with the help of unpaid family members.

16. HUEMs can best be described as:

(a) A unit engaged in the production of goods or services with the primary objective of generating employment and incomes to all persons concerned;

(b) Characteristics of HUEM are the same as for household production.

17. The production of the informal sector and production for own final use of were estimated from the results of the HUEM survey.

2. Informal sector production

18. Informal sector was considered as a sub-sector of the Households institutional sector.

19. Enterprises that produce for the market, not fully included in the official registration and taxation, businesses with undeterminable income are covered in the informal sector. Not all Enterprises are officially registered HUEM of informal sector separates registered and nonregistered enterprises

3. Household production for own final use

20. Production undertaken by household unincorporated enterprises exclusively for own final use is not part of the informal sector according to the 15th ICLS Resolution, and is thus regarded as a separate NOE type.

21. Household production for own final use includes:

- (a) Services of owner occupied dwellings
- (b) Activities of households as employers (Domestic services produced with paid staff)

B. ILLEGAL PRODUCTION

22. The illegal production is the N2 type in the non-observed economy framework. It is divided into the following 2 categories by the type of activity:

- (a) To produce, transport, sell, store and transfer to others the goods and services which are forbidden by law;
- (b) To run activities that are usually legal but become illegal when carried out by unauthorized producers.

23. The illegal activities such as drugs trade, smuggling of goods and prostitution which are undertaken by mutual agreement by the two parties are included in the production boundaries. But the other illegal acts, such as theft, which are not result of mutual agreements between the two parties, are excluded from production boundaries. Therefore, the illegal activities which cannot result from mutual agreement between the corresponding parties are defined as a special type of externality and tare not considered as transactions in national accounts. The drugs trade and prostitution, which are dominant in illegal activities, are included in the current estimations.

1. Drugs trade and consumption

24. Data source: The calculations of the drug trade were made based on relevant information and surveys from the Police and some administrative data of the Customs office and Health organizations. It is seen that the estimates of drugs trade could be improved by associating the different conditions to the share of drugs seizure and vulnerability analysis of each case. Information such as the share of the drug users to the total population, the number of patients, the number of crimes, the size of seized drugs and the market price of drugs were used for the estimations. Price information from neighboring countries was also used for the calculations..

25. In 2010 the number of drug users reached over 400. Between 2008 and 2011 the detected and seized drugs were as follows: 4.2 kg of heroin, 19.1 kg of cannabis, 30 gram of amphetamines and 15,978 pieces of drugs.

2. Prostitution

26. Data source: Several surveys conducted by the NSO and other organizations were used as a data source for the calculations on prostitution. For instance, NSO conducted the “Survey on sex workers and sexually exploited children” in 2010. The estimations was made based on information on the number of prostitutes, of which number of prostitutes serving foreigners and the monthly average income.

27. The 2010 survey, which was conducted in 8 districts of Ulaanbaatar, collected information on totally 4,640 prostitutes.

C. Underground production

28. The underground production is N6 type in the non-observed economy framework. It includes the goods and services that are produced legally but misreported in official statistics due to following reasons:

- (a) Evade the income tax, value added tax and other taxes;
- (b) Evade the social security contributions;
- (c) Evade adhering to legal standards (for example the minimum wage, maximum working time, labour safety and the hygienic standards)
- (d) Evade the administrative rules and regulations (for example, evade the statistical questionnaires and administrative registration).

29. According to the recommendations of 2008 SNA, the hidden or underground economy will cover the activities related to evasion of administrative regulations and duties and the criminal activities will be included in the illegal activities. Therefore the estimate covered those who avoid paying taxes and social security contributions and hide their incomes.

30. Data source: We used information on the number of inspected entities by tax administration, the amount of tax levied on hidden or partly paid income and the number of registered establishments that carried out activities in the reference period.

31. In 2010, a total of 35,276 establishments carried out activities. The tax inspections covered 9465 establishments. Those establishments were divided into several groups by their income size.

32. A total of 615.4 billion togrog’s of unreported output was estimated for 2010. Among the industries, 48.6 per cent of mining and quarrying sector production and the 29.6 per cent of trade sector production were underestimated, respectively.

IV. Implications and effects on national accounts and GDP estimates

33. All NOE adjustments have implications on GDP estimates. In Mongolia GDP is computed by three methods (production, income and expenditure method). The adjustments for informal and hidden economic activities are made for GDP calculated by all three methods.

34. In the calculation of GDP by the production method, adjustments are made for the respective sectors.

35. In calculating GDP by the expenditure method, the main adjustments are made to households' expenditure for final consumption. Small adjustments are made to fixed capital formation, mainly for construction of private dwellings.

Table 2

The share of NOE in total economy (mln.tug), 2010

Industries	NOE	GDP	Total economy (NOE+ GDP)	Share of NOE to total economy
Total	1332093.1	8414504.5	9745568.2	13.7
Agriculture	8060.2	1203348.0	1211408.2	0.7
Mining and quarrying	305661.8	1981970.1	2287631.9	13.4
Manufacturing	84089.5	708931.6	793021.1	10.6
Electricity, gas, steam and air conditioning supply	1454.2	174302.8	175757.0	0.8
Water supply; sewerage, waste management and remediation activities	2230.2	33051.7	35281.9	6.3
Construction	82511.7	147178.0	229689.7	35.9
Wholesale and retail trade; repair of motor vehicles and motorcycles	528 875.9	1310622.1	1839498.0	28.8
Transportation and storage	186841.2	659297.7	846138.9	22.1
Accommodation and food service activities	28266.1	54553.4	82819.5	34.1
Other services	104102.3	2141249.1	2245351.4	4.6

36. Hereafter, the NUEMs would be conducted every 5 years. The value added of the informal sector for the intermediate years could be calculated based on the results of the previous survey and the number of HUEM units identified by the Labour Force Survey. It is possible to estimate the size of the other types of other non-observed activities annually.