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Subcommittee on Statistics

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# ECONOMIC STATISTICS: STATISTICS ON THE INFORMAL SECTOR AND THE NON-OBSERVED ECONOMY

(Item 7 (a) of the provisional agenda)

# MEASUREMENT OF THE NON-OBSERVED ECONOMY AND PRODUCTION OF EXHAUSTIVE GDP ESTIMATES

Note by the secretariat

#### **SUMMARY**

In the context of the preparations for a workshop to be jointly organized by OECD and ESCAP, this document briefly describes the types of activities included in the non-observed economy and outlines a strategy for measuring them, with a view to improving the coverage of GDP.

#### Introduction

- 1. The United Nations Economic and Social Commission for Asia and Pacific (ESCAP) and the Organisation for Economic Cooperation and Development (OECD) are planning to hold the Workshop on Measurement of the Non-observed Economy and Production of Exhaustive GDP Estimates at Bangkok from 11 to 14 May 2004. This note aims to provide some background on the topic and the preparations for the Workshop.
- 2. In recent years substantial improvements have taken place in the methodologies used for measuring the output of the non-observed economy (NOE). Most countries in the ESCAP region are not familiar with these improved methods; hence the urgency of a Workshop on the topic. The need for this Workshop was identified at the thirteenth session of the Committee on Statistics and at the Subregional Workshop on Implementation of the 1993 System of National Accounts held at Ankara in October 2002.
- 3. In 2002, OECD published *Measuring the Non-observed Economy: A Handbook*. This *Handbook* is rapidly becoming the main reference document on the topic. For the May 2004 Workshop, the Australian Bureau of Statistics is kindly providing one resource person, who edited the *Handbook* while on secondment to OECD. Other resource persons will come from OECD, the Statistical Office of the European Communities (Eurostat) and ESCAP.

#### I. TYPES OF NOE ACTIVITIES

- 4. Economic policy formulation requires good-quality national accounts. High-quality national accounts must cover all economic activities, but exhaustive coverage is difficult to attain because some economic activities are either deliberately hidden or escape measurement in standard data collection systems. Such difficult-to-measure economic activities comprise the NOE. Essentially, NOE activities can be classified in five categories, namely: (a) underground production (economic underground); (b) illegal production; (c) informal production; (d) household production for own final use; and (e) omissions due to deficiencies in the data collection systems (statistical underground). The relative importance of the categories, or problem areas, varies from country to country. The informal sector, for instance, is usually very small in developed countries but quite large in developing countries.
- 5. According to the 1993 System of National Accounts (SNA), underground activities are those not complying with administrative rules, while illegal activities are those forbidden by law. Someone engaged in underground production may conceal it from the Government in order to pay employees less than the minimum wage, to avoid paying value added and other taxes or social security contributions or to evade compliance with certain administrative procedures.

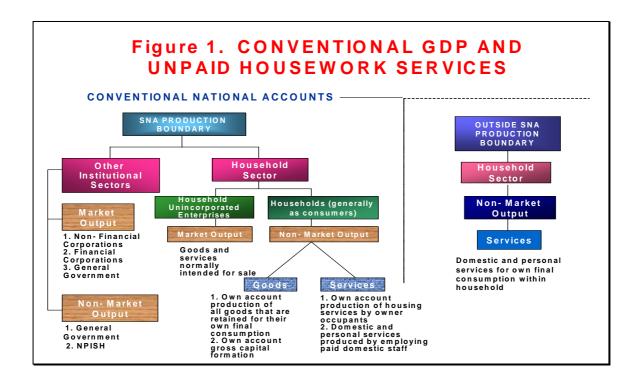
- 6. Illegal production encompasses: (a) production of goods and services forbidden by law, for example, production and distribution of illegal drugs; and (b) production carried out by unauthorized producers.
- 7. The Fifteenth International Conference of Labour Statisticians broadly characterized the informal sector as consisting of units engaged in the production of goods or services with the primary aim of generating employment and incomes for the persons concerned. There is little division between labour and capital as factors of production and units operate on a small scale. Quite often such units engage casual labour or family members or friends, with hardly any contractual arrangements or formal guarantees. In the context of the 1993 SNA, the informal sector is part of household unincorporated enterprises; units are less than a certain size and usually unregistered.
- 8. Household production for own final use includes production of crops, livestock, construction of houses, production of other goods for own final use, imputed rents of owner-occupiers and services of paid domestic servants.
- 9. Some production is missed owing to deficiencies in the data collection programme. Activities may escape direct measurement as a result of: (a) undercoverage of enterprises; (b) non-response by enterprises; and (c) underreporting by enterprises.
- 10. Incomplete coverage of economic activities leads to underestimation of the level of GDP and to biased estimates of its growth rate. It has often been observed that when the official economy contracts, many people find employment in the non-observed economy. Thus, the non-observed economy is frequently expanding when the formal economy is contracting.

#### II. STRATEGIES FOR NOE MEASUREMENT

- 11. Better coverage of economic activities can be achieved through: (a) improvements in direct measurement by the data collection programme so that all non-observed activities are measured; and (b) improvements in indirect measurement of non-observed activities during the compilation of national accounts, so that all activities are included in the estimation of GDP.
- 12. There are five lines of action in the strategy for the measurement of the NOE: (a) creation of an appropriate conceptual framework; (b) assessment of national accounts from an NOE perspective; (c) identification of improvements in national accounts compilation procedures that ensure complete coverage of economic activities; (d) improvement of the basic data collection programme so as to reduce non-observed production; and (e) implementation of a comprehensive NOE measurement strategy.
- 13. To ensure complete coverage, the first step involves knowing the production boundary, namely, a set of rules on which production activities are included or excluded in the estimation of

GDP. In the 1993 SNA, production activities that are counted in GDP include production of goods for the market or own use, production of services for the market, own production of housing services by owner-occupiers and domestic and personal services produced by employing paid domestic staff. Storage of agricultural products and supply of water are also included (1993 SNA, p. 527). It has been observed by many analysts that some of these changes to the 1993 SNA are not being included in surveys and consequently these activities are missed in the national accounts. Many of these activities are performed by women, for example, drawing water, collecting firewood and preparing food for workers employed by the household who are engaged in production for the market.

#### System of National Accounts 1993 Production Boundary



- 14. Some services which are not counted in GDP include the production of services for consumption within the household:
  - > Cleaning, decorating and maintenance of the dwelling;
  - Cleaning, servicing and repair of household durables, including vehicles used for household purposes;
  - > Care, training and instruction of children;
  - > Care of sick, infirm or old people;
  - Transport of members of the household.

The production of these services for consumption within the household is excluded from the 1993 SNA production boundary for various reasons:

- > Limited impact on the rest of the economy;
- ➤ Absence of market prices to value these services;
- ➤ Inclusion of large non-monetary flows of this kind together with monetary flows can obscure what is happening on the markets and reduce the analytical usefulness of the SNA;
- ➤ Inclusion of production of personal and domestic services by household members for their own final consumption would imply that such persons were self-employed, thus making unemployment impossible by definition.

Owing to these considerations, the 1993 SNA recommends that production of these services for consumption within the household be incorporated into a household satellite account.

- 15. Using the three approaches to measuring GDP (the production approach, the expenditure approach and the income approach) together in the commodity flow approach or in a supply and use framework is a useful way to check data and generate estimates for missing items. It is also important in measuring the NOE to have separate deflators if prices in the NOE behave differently from the rest of the economy.
- 16. The second line of action is assessment of national accounts. This is done through data confrontation and discrepancy analysis, for example, comparing household expenditures with available income. Household expenditure on goods and services produced by the NOE may be measured through household surveys, while the corresponding production of the NOE may not be reported by the producers. Another result of incomplete coverage in national accounts is the imbalances in supply and use tables. This also involves upper-bound estimation, otherwise known as sensitivity analysis, which aims at obtaining the upper limit to the extent of NOE activities. More generally, the exhaustiveness of GDP estimates can be seen in the context of the IMF Data Quality Assessment Framework, which complements the Special Data Dissemination Standard and General Data Dissemination System.
- 17. The third line of action involves identifying improvements in the national accounts to ensure that GDP estimates are exhaustive. This is achieved through the use of indicators derived from already-collected data.
- 18. The fourth line of action involves identifying the data requirements of users. This involves finding out how much information on the NOE users want, and checking whether the institutional framework can support efforts to improve the measurement of the NOE. Adopting an appropriate conceptual framework and selection of administrative and survey data sources are important steps. Usually, these call for improvements in the quality of the business register and the household area frame.

19. The fifth line of action for achieving exhaustive estimates of GDP involves setting priorities and developing action plans to deal with the NOE problem areas. Since the primary objective of NOE measurement is to improve the exhaustiveness of GDP estimates, staff of national statistical offices should be made aware that NOE measurement is an integral part of any overall quality management strategy. A vital initial step in any NOE measurement implementation strategy is to consult internal and external data users to determine their needs and priorities. Selection of an analytical framework and assessment of national accounts and a basic data collection programme can then take place. Finally, NOE improvement initiatives are identified and prioritized.

#### III. PREPARATIONS FOR THE MAY 2004 WORKSHOP

- 20. The main objective of the Workshop on Measurement of the Non-observed Economy and Production of Exhaustive GDP Estimates is to provide participants with information on best practices in this important area. The main outcomes of the Workshop are expected to be (a) more comprehensive and accurate national accounts from participating countries; (b) better data on the size characteristics of the NOE and its contribution to GDP as well as the proportion of the labour force engaged in non-observed activities; and (c) better estimates of household production for own use.
- 21. In order to gain insights into the NOE, Workshop participants will be introduced to the Italian Statistical Office and Eurostat analytical frameworks. The frameworks classify non-observed activities in categories that facilitate their identification and measurement. The Workshop will cover how to confront data from different sources and identify errors and gaps in and between these data. The emphasis will be on national accounts methods that can be used to arrive at exhaustive GDP estimates. There will be sessions devoted to improving the data collection systems from administrative data sources and through better survey design. Participants will share country experiences in producing exhaustive GDP estimates.
- 22. Provisionally, the countries and areas to be invited are: Afghanistan; Azerbaijan; Bangladesh; Bhutan; Cambodia; China; Georgia; Hong Kong, China; India; Indonesia; Islamic Republic of Iran; Kazakhstan; Kyrgyzstan; Lao People's Democratic Republic; Macao, China; Malaysia; Maldives; Mongolia; Myanmar; Nepal; Pakistan; Philippines; Republic of Korea; Russian Federation; Singapore; Sri Lanka; Tajikistan; Thailand; Timor-Leste; Turkey; Turkmenistan; Uzbekistan; and Viet Nam, as well as three countries from outside the region, Belarus, Brazil and South Africa. Participants should be senior statisticians responsible for conducting enterprise/establishment surveys or compiling national accounts. ESCAP and OECD will fund participants from developing countries, and, as usual, participants from developed countries will be welcome to attend at their Government's expense.
- 23. The Subcommittee might wish to provide comments on the general topic of the Workshop, as well as on its provisional programme, which is annexed to this note.

## References

- 1. System of National Accounts 1993, ISBN 92-1-161352-3 (Eurostat, International Monetary Fund, United Nations and World Bank, 1993).
- 2. *Measuring the Non-observed Economy: A Handbook*, 2002 (Organisation for Economic Cooperation and Development, 2002).

## Annex

## Tentative Time Schedule

<u>11 May</u>	
0800 - 0855	Registration
0900	Opening
0930 - 1015	Conceptual framework: NOE problem areas (with some hints on illegal
	production)
1015 – 1030	Coffee break
1030 – 1130	Five lines of action for achieving exhaustive estimates of GDP
1130 – 1300	Lunch
1300 – 1400	Informal sector production
1400 – 1445	Underground production
1445 – 1500	Coffee break
1500 – 1600	Household production for own final use
<u>12 May</u>	
0830 – 1000	National accounts methods to achieve exhaustiveness: production approach –
	general methods
1000 – 1015	Coffee break
1015 – 1130	National accounts methods to achieve exhaustiveness: production approach:
	industry-specific methods
1130 – 1300	Lunch
1300 – 1500	Discussion of country experiences
1500 – 1515	Coffee break
1515 – 1600	Discussion of country experiences
1313 – 1000	Discussion of country experiences

# 13 May 0830 - 1000National accounts methods to achieve exhaustiveness: expenditure approach 1000 - 1015Coffee break 1015 - 1130National accounts methods to achieve exhaustiveness: supply and use framework Lunch 1130 - 13001300 - 1500Discussion of country experiences 1500 - 1515Coffee break 1515 - 1600Discussion of country experiences 14 May Improvement of data collection programmes: administrative sources 0830 - 1000Coffee break 1000 - 10151015 - 1130Improvement of data collection programmes: survey design principles and practices 1130 - 1300Lunch 1300 - 1600Plans for future work Recommendations and closing

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