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Session 9- Informal sector
Outline of the presentation

– Informal economy

– Operational guidelines for identifying informal sector and Informal employment

• Measuring informal sector
  – Data to be compiled
  – Surveys on informal sector
  – Direct approaches to estimate informal sector
  – Indirect approaches to estimate informal sector
    » Compiling labour input matrix
    » Estimating productivity coefficients
  – Suggested template for compiling informal sector estimates
Informal economy

- Informal economy refers to informality in enterprises and employment, thus encompasses the informal sector enterprises and informal employment
  - Informal sector refers to the production and employment that takes place in unincorporated small or unregistered enterprises (15th ICLS),
  - informal employment refers to employment without legal and social protection—both inside and outside the informal sector (17th ICLS).
- Concepts, definitions and guidelines for identifying informal sector units in the economy have been provided in the 15th ICLS, 1993/2008 SNA, and ILO Manual on Measuring Informality
- Two important handbooks for measuring informal economy are:
Informal sector

• The term ”informal sector” is used to denote tiny units, engaged in the production of goods and services but whose activities were not recognized, recorded, protected or regulated by the public authorities and includes a wide range of activities from street vending, shoe-shining, food processing and other petty activities requiring little or no capital and skills to activities involving some amount of skill and capital such as tailoring, repair of electrical and electronic goods, and operation of transport equipment.
15\textsuperscript{th} ICLS: Concepts of informal sector

Concepts of informal sector in 15\textsuperscript{th} ICLS

- Informal sector consists of units engaged in production with the primary objective of generating employment and incomes to the persons concerned.
  - These units operate at a low level of organization, with little or no division between labour and capital as factors of production and on a small scale.
  - Labour relations – where they exist - are based mostly on casual employment, kinship or personal and social relations rather than contractual arrangements.

- Production units of the informal sector have the characteristic features of household enterprises.
  - The fixed and other assets used do not belong to the production units as such but to their owners.
  - Expenditure for production is often indistinguishable from household expenditure.
  - Similarly, capital goods such as buildings or vehicles may be used indistinguishably for business and household purposes.
15th ICLS: Operational definitions

Operational definitions

• For statistical purposes, the informal sector is regarded as a group of production units falling under the household sector of SNA and comprises
  – informal own-account enterprises
    • household enterprises owned and operated by own-account workers, either alone or in partnership with members of the same or other households, which may employ contributing family workers and employees on an occasional basis, but do not employ employees on a continuous basis
  – enterprises of informal employers
    • household enterprises owned and operated by employers, either alone or in partnership with members of the same or other households, which employ one or more employees on a continuous basis and which have the characteristics of informal sector
1993 SNA

Endorses 15th ICLS, recognises that informal sector is a subset of household sector

• Complete accounts that would permit a financial separation of activities of the enterprise from other activities of its owners are not available;
• Produce *at least some* of their goods or services for market;
• Produce goods and services using labour as input. This excludes units producing goods for own final use and services of paid domestic staff and owner occupied dwellings;
• Refers to a group of production units based on their characteristics, irrespective *(i)* kind of workplace where the productive activities are carried out, *(ii)* extent of fixed capital assets used, *(iii)* duration of the operation of the enterprise (perennial, seasonal or casual), *(iv)* operation as a main or secondary activity of the owner;
• The employment size of the enterprise is below a certain threshold (to be determined according to national circumstances);
• And/or not registered under specific form of national legislation.
2008 SNA

Included a separate Chapter 25 on “Informal aspects of the economy”

*Operational guidelines to identify informal sector units*

- exclude the following from SNA households sector
  - Institutional households such as prisons, and retirement homes
  - Households with no production activity
  - Produce exclusively for own final use
  - Households whose only activity is the production of services from owner-occupied dwellings, the production of services by employing domestic staff
  - NPISH, if included in household sector
  - Agricultural production
  - Households with enterprise that is registered or has more than a given number of employees

- to provide a breakdown by type of activity so that common exclusions according to type of activity can be made.
Essential SNA: Building the basics, Eurostat, 2013

General essential criteria:
- legal organization of the enterprise: unincorporated enterprise;
- ownership of enterprise: belong to a household;
- type of accounts: absence of separate complete accounts;
- production destination: at least some production is destined for sale or barter, which excludes household enterprises with no market production (own-account agriculture or construction), services of paid domestic workers, services from owner-occupied dwellings.

Additional operational criteria:
- size limit of the enterprise: left to the country’s discretion (for international reporting, less than five employees);
- non-registration of enterprise and/or of employees in an enterprise within some arm of government;
- economic activity: non-agricultural activity including units mainly involved in agricultural sector and performing secondary non-agricultural activities;
- location of units: urban and rural areas.
ILO Manual Measuring Informality: a Statistical Manual on the informal sector and informal employment

• Most comprehensive document providing guidance to countries in measuring informal economy
• Chapter 2 of the manual presents the concepts and definitions of informal sector and informal employment (drawing upon the 15th and 17th ICLS resolutions).
• Identification of informal sector units
  – Depending on national circumstances, either all own-account enterprises or else only those that are not registered under specific forms of national legislation.
  – Enterprises of informal employers should be defined in terms of one or more of the following three criteria:
    • Small size of the enterprise in terms of employment;
    • Non-registration of the enterprise;
    • Non-registration of its employees.
  – An enterprise composed of more than one establishment should be considered informal if none of its establishments exceeds the size limit.
Informal employment: Characteristics

- The phenomenon of outsourcing of services has contributed to the development of more casual arrangements between owners of enterprises and those contributing labour services in the form of informal employment.
- Informality of employment is characterized by absence of contracts, social protection, entitlement to certain employment benefits and not being subject to labour legislation or taxation.
- Broadly, informal employment comprises informal jobs both in formal and informal enterprises and in households.
- A person can simultaneously have two or more formal and/or informal jobs.
- Due to the existence of such multiple job holding, jobs rather than employed persons are taken as the observation units for employment.
- The concept of informal sector refers to production units as observation units, while the concept of informal employment refers to jobs as observation units.
- Where they exist, employees holding formal jobs in informal sector enterprises should be excluded from informal employment.
Identifying informal employment

• The following five categories of jobs were considered by the ILO for identifying the informal employment.
  – own-account workers (the self-employed in SNA terms);
  – heads of unincorporated enterprises with employees, treated as employers;
  – unpaid family workers contributing labour to the unincorporated enterprise;
  – employees; and
  – members of producers’ cooperatives.

• This indicates
  – Formal enterprises provide informal jobs only as employees or contributing family workers.
  – Informal enterprises may offer any of five types of informal jobs and also formal jobs.
  – Households provide informal jobs as own-account workers, employees and family workers
  – Some domestic staff may have formal jobs.
### Informal employment: Conceptual framework

<table>
<thead>
<tr>
<th>Production units by type</th>
<th>Jobs by status in employment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Own-account workers</td>
<td>Employers</td>
</tr>
<tr>
<td></td>
<td>Informal</td>
<td>Formal</td>
</tr>
<tr>
<td>Formal sector enterprises</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal sector enterprises (a)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Households (b)</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

(a) As defined by the 15th ICLS (excluding households employing paid domestic workers).
(b) Households producing goods for their own final use; households employing paid domestic workers.

- Cells shaded in dark grey refer to jobs, which, by definition, do not exist in the type of production unit in question. Cells shaded in light grey refer to formal jobs. Un-shaded cells represent the various types of informal jobs.
Measuring informal sector
National accounts data to be compiled

- Summarising characteristics of informal sector
  - Household unincorporated enterprise that
    - Is not registered;
    - Does not have complete set of accounts
    - Has at least some market production
    - Size limit left to country’s discretion
  - Divided into
    - without employees "informal own-account enterprises"
    - with employees "enterprises of informal employers"

The NA data that can be compiled for informal sector are
(i) value added and its components,
(ii) production and generation of income accounts; and
(iii) employment in informal sector and informal employment.

- For the reasons that the informal sector (a) comprises a group of production units (rather than as a sector in SNA concept), (b) do not maintain complete accounts and (c) its activities cannot be separated from other activities of the owners, it is not possible present full sequence of accounts for this sector.
Data sources: Censuses and Surveys

- Surveys for measuring informal economy include:
  A. Household surveys (HS), mainly labour force survey and population census;
  B. Establishment surveys and censuses;
  C. Mixed household-enterprise surveys

- The ILO manual suggests:
  - If the objective is to measure informal sector employment and/or informal employment, *household survey or mixed surveys* provide best approach.

- Because, establishment censuses and surveys tend to give lower estimates of employment for various reasons, such as incomplete statistical frames, under-coverage of units especially the informal sector units, and mis-reporting on employment to avoid regulations.
  - If the objective also includes estimating other characteristics of informal sector units, *mixed surveys* are better
A. Household surveys on informal sector employment and informal employment

- Household-based surveys (e.g. LFS) are mostly used to collect statistics on employment in the informal sector and informal employment,
  - **Core information collected in LFS:** (a) activity status, i.e., if the person is in the labour force and, if so, whether the person is employed or unemployed; (b) basic employment characteristics, such as occupation, status in employment, kind of activity, etc.
  - **Additional information needed to identify the informal sector:** (a) registration; (b) legal organization and ownership of the enterprise; (c) type of accounts; (d) product destination; (e) size of the economic unit, i.e. the number of persons employed by type of worker (contributing family workers, employees, employer).
  - **Additional information needed to identify informal employment:** (a) contribution by employer to pension funds/retirement scheme; (b) de facto employment-based coverage of social security, health care or any other private or public protection scheme.
B. Establishment Censuses and Surveys

• Establishment censuses and surveys
  – collect information on activities of economic units
  – are the sources to produce basic economic statistics at detailed level of industries and geographical areas.
  – provide more frequent statistics on a broader range of items, but at more aggregated levels of the industrial classification
    • used directly in national accounts with necessary conceptual adjustments
    • provide benchmarks and key ratios used in national accounts
• For these censuses and surveys to be useful for informal sector statistics, they need to
  • cover all economic units (including small units employing only one person, carried out within dwellings or with no fixed location);
  • include items in their questionnaires that concern keeping of accounts, registration with government authorities and registration of workers with social security schemes.
C. Mixed surveys

• Mixed surveys on informal sector refer to surveys carried out in two phases
  – 1\textsuperscript{st} Phase: Household survey to obtain information on the activity of individuals to identify informal sector entrepreneurs
  – 2\textsuperscript{nd} Phase: Data collected from the sample of informal sector entrepreneurs
• The principle underlying mixed surveys is that informal economic units are identified more easily through the jobs of the owners of informal sector units than through their premises.
• Types of mixed surveys: \textit{mixed modular} and \textit{mixed independent surveys}; \textit{integrated surveys}
  • Mixed modular surveys use an existing household survey (called ‘base’ survey)
  • Mixed independent surveys carry out a detailed independent listing operation of all households in selected areas.
  • Integrated surveys can be seen as special types of modular surveys.
    – They are designed to meet several objectives at the same time, e.g. Labour force, informal sector, household income and expenditure.
    – Examples of integrated surveys are the 1-2-3 surveys that have been conducted in some African countries.
Direct approaches to estimate informal sector

- Possible to directly estimate informal sector through production approach if relevant data is collected from the informal sector enterprises through establishment or mixed surveys.
- The main problems in direct surveys are the costs involved; incomplete frame of informal sector units; and the quality of data that is collected, as these surveys are generally not based on records, and revenues and expenditures of informal sector enterprises are mixed up with household expenditures.
- Many small units, illegal units and those operating without fixed premises tend to get missed in the direct establishment surveys.
- Therefore, it is sometimes preferable to adopt indirect approaches (mainly the labour input method) for estimating informal sector contribution in GDP, rather than a direct approach.
- However, data collected from direct establishment surveys on informal sector could have several uses, such as in the preparation of (i) benchmark estimates of labour productivity ratios, (ii) value added ratios, (iii) capital-output ratios, and also to some extent in the preparation of (iv) labour input matrices.
Indirect approaches

- Indirect approaches most commonly used are:
  
  - **Commodity flow methods**: discrepancies between income, expenditure and production GDP estimates are attributed partly to informal sector, or labour and material inputs.
  
  - **Residual method**: Global estimates for the whole economy are prepared based on available data or indicators or commodity flow methods and from these, estimates of formal sector are deducted
  
  - **Labour input method**: Most preferred method based on employment in informal sector
    
    - This method is preferred even when data on informal sector is available from establishment surveys, for the reasons of under coverage of informal sector units in these surveys.
    
    - Labour input method is also widely used to assess hidden employment activities even in the formal sector by comparing the supply of labour from an LFS with estimates of demand of labour obtained from business surveys and administrative sources.
Labour input method

- Labour input method involves three basic steps:
  - obtaining estimates of labour input in the informal sector by economic activity from a household survey (generally, LFS);
  - estimating output and value added per unit of labour input with the same economic activity breakdown for enterprises belonging to the informal sector; and
  - multiplying labour input estimates by per unit productivity norm to obtain the output and value added of the informal sector by economic activity.

- Preferred method to derive labour input in informal sector by economic activities is by compiling a labour input matrix using information available on employment from different surveys/administrative sources, in a consistent and exhaustive manner and in coherence with production statistics.
Labour input matrix

- Presents employment data in terms of jobs in a cross-classification of institutional sectors (with informal sector as a subset of household sector) and economic activities and conditions of employment (formal/informal employment).

- Labour input matrices facilitate measurement of various components of employment that contribute to production in a consistent and exhaustive manner.

- Employment data recorded in the labour input matrix can further be used in estimating output and value added indirectly, for those components for which production data is not available from direct sources.
  - For example, these components can be informal sector units in different industries or informal employment in formal sector or non-response units in the formal sector, etc.
## Broad structure of labour input matrix

<table>
<thead>
<tr>
<th>ISIC / Institutional sectors</th>
<th>General Government</th>
<th>Corporations</th>
<th>Households excluding informal sector</th>
<th>Informal sector</th>
<th>Total economy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FE</td>
<td>IE</td>
<td>TE</td>
<td>FE</td>
<td>IE</td>
</tr>
<tr>
<td>Agriculture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total economy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Further disaggregation of the table to include employment status (own account workers, employers, contributing family workers, employees, etc.) can be considered
- Informal sector can be separated into informal own-account and enterprises of informal employers
- FE: formal employment; IE: informal employment; TE: total employment
(i) Compiling labour input matrix from a single source of labour supply

- Main sources of labour supply: population censuses, LFS, other household surveys that collect information on employment, base survey of 1-2 surveys
- If the questionnaire of labour force survey, includes all data items (institutional sector, economic activity, registration, size classification, maintenance of accounts, secondary jobs and conditions of employment), then the labour input matrix can be compiled from this single source
- The main advantage of using a single source is the internal consistency of concepts, coverage and the derived estimates of labour input between the detailed levels and the national total.
- On the other hand, the main drawback in this case is that the quality of labour input matrix depends on the ability of the responding workers to provide correct information on the characteristics of the unit (size, registration, institutional sector, maintenance of accounts, etc.) where they are working
Compiling labour input matrix (2/6)

(ii) Compiling labour input matrix from multiple sources of labour supply and demand

- If LFS does not provide full information that is required to compile a labour input matrix (for example, they may only cover employment by economic activities and sectors, but not the characteristics of units where persons are employed; or on the conditions of employment).
  - Labour input matrices can be compiled using LFS and other sources, such as establishment surveys, government/business accounts, administrative sources.
- When different sources are used for constructing a labour input matrix, it should be ensured that employment (in terms of jobs) and production statistics are consistent in terms of SNA concepts of production boundary and residence criteria.
Compiling labour input matrix from different sources (3/6)

(a) Components of labour input matrix that can be compiled from LFS

- Employment cross-classified by ‘kind of economic activity’, and ‘status in employment’ (employers, own-account workers, contributing family workers, employees, etc.); and further by sex, urban/ rural.
  - The missing elements in this Table would be the breakdown of employment by institutional sectors and formal/informal employment.

(b) Components of labour input matrix from establishment/ enterprise surveys and administrative sources

- Employment by activities and government and corporations, which could be classified as formal employment; and possibly part of household sector (establishments that are not corporations but included in the surveys)

With (a) and (b), employment in household sector by activity, can be derived as residual

- Missing elements in the labour input matrix will be the informal sector employment and formal/informal employment break-up within each of the institutional sectors
Compiling labour input matrix from different sources (4/6)

- If the country has recently conducted an establishment survey, it is possible that it adopted the criteria of legal status and size to determine the coverage of the survey.
- These surveys normally include the data items of employment in the unit, economic activity and legal status.
- The employment in these units can be classified in the formal sector if the coverage of units in these surveys is limited to the legal status of registered units.
- This source together with the employment data from labour force survey, can provide information on total employment (without break up of formal/informal employment) in both (i) household sector (with size of units as in the survey design) (ii) corporations.
(c) Estimating informal employment

• For estimating informal employment in different institutional sectors, certain assumption may have to be made.
  – Employment in formal sector coincides with formal employment if we assume that formal enterprises employ only paid employees with social protection;
  – No worker in informal sector has social protection and those in households producing exclusively for own final use do not have social protection.

• Informal employment outside the informal sector may be estimated from the figures for total employment (obtained from LFS) by subtracting employment in the formal sector (obtained from establishment surveys and administrative data) and employment in informal sector (obtained from mixed or informal sector surveys).
  – The result may then be used as an estimate of informal employment in the formal sector, with the usual weaknesses attached to such ‘residual’ estimates.
Compiling labour input matrix from different sources (6/6)

• Summing up on using different sources for constructing a labour input matrix that have been described above, we still see some elements of labour input matrix missing or based on assumptions, especially, with regard to the informal employment in different institutional sectors and identification of informal sector units within the household sector.

• These missing components can be filled up by including suitable data items on conditions of employment, registration and size of units where the persons are working, in the surveys, especially in the LFS or in the base survey of 1-2 mixed surveys.

• The preferred reference year for constructing a labour input matrix is the year for which both the results of a labour force survey and establishment surveys are available.
## Sources used for building a labour input matrix

<table>
<thead>
<tr>
<th>Sources</th>
<th>Items by economic activity</th>
</tr>
</thead>
</table>
| Population census (A) or Labour force survey (B) or Other household survey (C) | • Total employment by economic activity and by employment status (self-employed/paid employees), in full-time equivalent (1)  
• Employment in unincorporated enterprises engaged exclusively in production for own final use by economic activity, in full-time equivalent (6) |
| Establishment/enterprise Census or Economic census | • Total employment (self-employed and paid employees) in unincorporated enterprises with fewer than a given number of employees (say, fewer than five employees) (2)  
• Total employment in incorporated enterprises and in unincorporated enterprises with more than the specified number of employees (say, five and more employees) (3) |
| Mixed household/establishment survey (D) | • Total employment by kind of economic activity (industry) and by employment status (1)  
• Informal employment in formal sector (household survey) (4)  
• Employment in informal sector (enterprise survey) (5) |
| Informal employment by component | (1) - (3) = (4) + (5) + (6)  
Informal employment = informal employment in the formal sector + employment in informal sector enterprises (assumes all this employment to be informal employment) + employment in unincorporated enterprises engaged exclusively in production for own final use |
Productivity coefficients

- Productivity coefficients such as gross value added per worker (GVAPW) or gross value of output per worker of informal sector units are needed, together with labour input in informal sector to estimate GVA or GVO of informal sector.

- Ideal source for data on labour productivity coefficients is the informal sector surveys or 1-2 surveys or the regular establishment survey that also covers informal sector.

- If the country has any of these sources, then the labour productivity coefficients can be derived directly as the ratio of output or value added to the total employment of all informal sector units covered in the survey, in each of the economic activities. It is also possible to derive these ratios by size classification of informal sector units, such as for own account establishments and other establishments.

- However, if the country has only establishment surveys that cover formal units, then labour productivity coefficients of informal sector units (by economic activity) can be assumed to be equivalent to the labour productivity coefficient of lowest employed formal units or a percentage of that.

- Another alternative could be to impute the labour productivity coefficient of informal sector employee to that of per household consumption expenditure (assuming that the informal sector employee’s earnings are at least meeting the household expenditures).

- Choices for estimating labour productivity coefficients could vary among the countries, depending on data sources and living conditions and characteristics of informal sector units.
Estimating national accounts aggregates for informal sector: Gross value added

Direct method

- Statistics obtained from mixed surveys or establishment surveys covering informal sector may be used for compiling the estimates of value added for the informal sector.
- Output is measured by the value of sales or output, adjusted for changes in inventory.
- If information on the intermediate consumption of various products and services is not collected, then it is necessary to make assumptions to estimate these items.

Indirect method

- A more practical approach is the indirect methods, since the direct method described above has inherent weaknesses of under-coverage.
- Value added of informal sector of a particular activity can be estimated as product of GVAPW and the labour input in that activity. This can be done even for different size classifications of informal sector units.
- Since, data on primary activities of agriculture and mining are generally available from administrative sources in countries, the labour input method is adopted mainly for estimating the value added of informal sector in manufacturing, construction and services activities.
### Labour input matrix by industry and sector

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Industry</th>
<th>Government</th>
<th>Corporations</th>
<th>Household Sector excl. infl. sector</th>
<th>Informal Sector</th>
<th>Total Economy (nos)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Forml jobs</td>
<td>Infl. jobs</td>
<td>Forml jobs</td>
<td>Infl. jobs</td>
<td>Forml jobs</td>
</tr>
<tr>
<td>1</td>
<td>Agriculture</td>
<td>0.9</td>
<td>2.0</td>
<td>0.2</td>
<td>0.6</td>
<td>0.2</td>
</tr>
<tr>
<td>2</td>
<td>Non-agrl. activts.</td>
<td>165</td>
<td>82</td>
<td>51</td>
<td>85</td>
<td>25</td>
</tr>
<tr>
<td>2.1</td>
<td>Manufacturing</td>
<td>6.9</td>
<td>3.1</td>
<td>21</td>
<td>43</td>
<td>11</td>
</tr>
<tr>
<td>2.2</td>
<td>Construction</td>
<td>1.2</td>
<td>15.2</td>
<td>0.4</td>
<td>7.3</td>
<td>0.7</td>
</tr>
<tr>
<td>2.3</td>
<td>Trade and hotels</td>
<td>1.0</td>
<td>1.0</td>
<td>2.7</td>
<td>5.4</td>
<td>3.3</td>
</tr>
<tr>
<td>2.4</td>
<td>Others</td>
<td>156</td>
<td>63</td>
<td>27</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Total</td>
<td>166</td>
<td>84</td>
<td>51</td>
<td>86</td>
<td>25</td>
</tr>
</tbody>
</table>
Estimates of value added by industries and sectors

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Industry</th>
<th>Government</th>
<th>Corporation</th>
<th>Household Sector excl. infl. sector</th>
<th>Informal Sector</th>
<th>Total Economy (national currency units)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Forml jobs</td>
<td>Infl. jobs</td>
<td>Forml jobs</td>
<td>Infl. jobs</td>
<td>Forml jobs</td>
</tr>
<tr>
<td>1</td>
<td>Agrl. &amp; allied</td>
<td>18</td>
<td>0</td>
<td>15</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Non-agrl. activts.</td>
<td>570</td>
<td>94</td>
<td>557</td>
<td>39</td>
<td>50</td>
</tr>
<tr>
<td>2.1</td>
<td>Manufacturing</td>
<td>64</td>
<td>1</td>
<td>214</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>2.2</td>
<td>Construction</td>
<td>16</td>
<td>8</td>
<td>56</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2.3</td>
<td>Trade and hotels</td>
<td>6</td>
<td>1</td>
<td>97</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>2.4</td>
<td>Others</td>
<td>484</td>
<td>84</td>
<td>190</td>
<td>18</td>
<td>45</td>
</tr>
<tr>
<td>3</td>
<td>Total</td>
<td>587</td>
<td>94</td>
<td>572</td>
<td>39</td>
<td>51</td>
</tr>
</tbody>
</table>

GVA of informal sector presented in red colour is estimated as labour input * GVAPW of informal sector units. GVA attributed to informal jobs in formal sector are compiled as informal jobs in formal sectors * GVAPW of informal sector units.
Suggested template for GVA estimates

- Template
Treatment of informal employment in formal sector

- Formal enterprises show in their books of accounts only formal employment. Informal employment in formal sector are of the nature of ‘service providers’.
- Data on such informal employment in the formal sector, therefore, may not be available in the formal enterprises’ accounts, but may be available from household surveys.
- The books of accounts of formal enterprises show compensation of employees being paid to formal employment and purchase of services payments made to informal employment, which is an expense item for the enterprises and is part of intermediate consumption, although both formal and informal employees are in employment in formal enterprises. This results in under-estimation of GVA.

There are two ways to deal with this problem:

- Shift the estimated payments made to informal employees from *intermediate consumption* to *compensation of employees* of formal enterprises.
- Shift the informal employment to appropriate economic activities (e.g. administrative support services or professional and technical services, etc.) in the informal sector and their output estimated as equivalent to the value of purchase of their services shown in the formal sector units’ accounts.
Value added of a formal sector enterprise that has informal employment: current treatment

<table>
<thead>
<tr>
<th>Item</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total output</td>
<td>100</td>
</tr>
<tr>
<td>2. Intermediate consumption towards services provided by informal employment</td>
<td>20</td>
</tr>
<tr>
<td>3. Intermediate consumption in respect of sub-contracting of work</td>
<td>10</td>
</tr>
<tr>
<td>4. Other intermediate consumption expenditures</td>
<td>15</td>
</tr>
<tr>
<td>5. Total intermediate consumption (2+3+4)</td>
<td>45</td>
</tr>
<tr>
<td>6. Value added (1-5)</td>
<td>55</td>
</tr>
<tr>
<td>7. Compensation of employees paid to formal employment</td>
<td>30</td>
</tr>
<tr>
<td>8. Gross operating surplus (6-7)</td>
<td>25</td>
</tr>
</tbody>
</table>
### Scenario 1: Value added of a formal sector enterprise that has informal employment
(showing payments to informal employment as compensation of employees)

<table>
<thead>
<tr>
<th>Item</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total output</td>
<td>100</td>
</tr>
<tr>
<td>2. Compensation of employees paid to informal employment</td>
<td>20</td>
</tr>
<tr>
<td>3.Intermediate consumption in respect of sub-contracting of work</td>
<td>10</td>
</tr>
<tr>
<td>4. Other intermediate consumption expenditures</td>
<td>15</td>
</tr>
<tr>
<td>5. Total intermediate consumption (3+4)</td>
<td>25</td>
</tr>
<tr>
<td>6. Value added (1-5)</td>
<td>75</td>
</tr>
<tr>
<td>7. Compensation of employees paid to formal employment</td>
<td>30</td>
</tr>
<tr>
<td>8. Total compensation of employees (2+7)</td>
<td>50</td>
</tr>
<tr>
<td>9. Gross operating surplus (6-8)</td>
<td>25</td>
</tr>
</tbody>
</table>
Scenario 2: Value added of formal sector and informal sector
(treating the informal employees in formal sector as service providers belonging to informal sector)

<table>
<thead>
<tr>
<th>Item</th>
<th>Formal sector enterprise</th>
<th>Informal sector Enterprises*</th>
<th>Total economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Values</td>
<td>Values</td>
<td>Values</td>
<td>Values</td>
</tr>
<tr>
<td>1. Total output</td>
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<td>20</td>
<td>120</td>
</tr>
<tr>
<td>2. Intermediate consumption towards services provided by informal employment</td>
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<td></td>
<td>20</td>
</tr>
<tr>
<td>3. Intermediate consumption in respect of sub-contracting of work</td>
<td>10</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>4. Other intermediate consumption expenditures</td>
<td>15</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>5. Total intermediate consumption (2+3+4)</td>
<td>45</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>6. Value added (1-5)</td>
<td>55</td>
<td>20</td>
<td>75</td>
</tr>
<tr>
<td>7. Compensation of employees paid to formal employment/mixed income</td>
<td>30</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>8. Gross operating surplus (6-7)</td>
<td>25</td>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>
Comparison of estimates obtained by treating informal employment in formal enterprises differently

<table>
<thead>
<tr>
<th>Item</th>
<th>Current accounting practice</th>
<th>Alternative approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Scenario 1</td>
</tr>
<tr>
<td>1. Total output</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2. Intermediate consumption</td>
<td>45</td>
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</tr>
<tr>
<td>3. Value added (1-5)</td>
<td>55</td>
<td>75</td>
</tr>
<tr>
<td>4. Compensation of employees /mixed income</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>5. Gross operating surplus (6-7)</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>
Concluding remarks

• Labour input method provides a feasible and practical approach to estimate informal sector and include the data in national accounts
  – A comprehensive labour force survey in conjunction with other establishment surveys and administrative registers, is useful in preparing the labour input matrix
  – The informal sector establishment surveys or the second phase of 1-2 surveys or other sources can provide estimates of productivity coefficients for informal sector in different activities
  – Labour input method can also be used to estimate production in respect of missing elements, such as for non-response, underground production and illegal activities
Suggested reading

– Operational Guidebook on Accounting for Informal Sector in National Accounts (Draft version): United Nations Economic Commission for Africa (Chapters 1 and 2)


THANK YOU