# ISSUES IN DEVELOPMENT AND MAINTENANCE OF A USER-ORIENTED DATA ARCHIVE FOR NATIONAL DATA ON INFORMAL ECONOMY

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#### Introduction

At the Fifth Meeting of the Expert Group on Informal Sector Statistics (Delhi Group) held during October 2001 at New Delhi one of the important recommendations made was the following:

"Future work of the Delhi Group should concentrate on a project to establish a common pool of data bases on the informal sector (along similar lines as the Luxembourg Income Study), for which financial support will be sought from donor agencies. The aim of the project is to undertake the necessary work in order to obtain the best possible internationally comparable statistics of the informal sector. The project will, therefore, include studies aimed to improve the quality of existing informal sector data, and the formulation of technical guidelines regarding the statistics to be included and how to develop them, including the formulation of questions for the identification in labour force surveys of informal sector workers on a regular basis. The external funding of the project may also lead to increased country representation in the Delhi Group".

2. The Luxembourg Income Study (LIS), founded in 1983, is committed to the open sharing of harmonised household income survey micro data at zero user cost while still preserving the confidentiality and privacy of survey respondents. The LIS modus operandi is to obtain existing national household income survey data and to do the best it can to harmonise and make these data comparable. Data harmonisation improves comparability and therefore, the ratio of signal (true values) to noise (statistical or other differences) in data sets. The LIS project contained more than 100 data sets covering nearly 30 nations over a period exceeding three decades, starting from 1970. Analytical studies made by using the LIS data sets have a valuable role to play in improving key estimates, in that they expose areas where comparability is lacking, particularly when this is not

obvious from published summary statistics. LIS aims to continue to update the technical and institutional documentation available so that survey quality can be ascertained and so that the numerical values which LIS contains can be put into a social, legal and political context.

# Relevant recommendations of the Delhi Group on Informal Sector Statistics

- 3. Given the long experience of LIS in trying to construct internationally comparable statistics on income, some recommendations of the Delhi Group on Informal Sector Statistics relevant to the issues in developing and maintaining a user-oriented Data Archive for national data on informal economy are brought together in the following paras.
- 4. At the Third Meeting of the Delhi Group (held in May, 1999 at Delhi), it was recognised that national definitions of the informal sector can not be fully harmonised, since the informal sector manifests itself in different ways in different countries. In order to enhance the international comparability of informal sector statistics, the countries should disseminate data for the subset of the informal sector, which can be defined uniformly. So as to define this subset, the Delhi Group adopted the following recommendations:
  - (i) All countries use the criteria of legal organisation (un-incorporated enterprises), of type of accounts (no complete set of accounts) and of product destination (at least some market output).
  - (ii) Specification of the employment size limit of the enterprise in national definition of the informal sector is left to the country's discretion. For international reporting, however, countries should provide figures separately for enterprises with less than five employees. In the case of multiple establishment enterprises, the size limit should apply to the largest establishment.

- (iii) Countries using the employment size criteria provide disaggregated figures for enterprises, which are not registered, as well as for enterprises, which are registered.
- (iv) Countries using the criteria of non-registration provide disaggregated figures for enterprises with less than five employees as well as for enterprises with five and more employees.
- (v) Countries, which include agricultural activities, should provide figures separately for agricultural and non-agricultural activities.
- (vi) Countries should include persons engaged in professional or technical activities if they meet the criteria of the informal sector definition.
- (vii) Countries should include paid domestic services unless these are provided by employees.
- (viii) Countries should follow paragraph 18 of the resolution adopted by the 15<sup>th</sup> ICLS regarding the treatment of out-workers / home-workers. Countries should provide figures separately for out-workers / home-workers included in the informal sector.
- (ix) Countries covering urban as well as rural areas should provide figures separately for both urban and rural areas.
- (x) Countries using household surveys or mixed surveys (household cum enterprise) should make an effort to cover not only persons whose main job is in the informal sector, but also those whose main job is in another sector and who have a secondary activity in the informal sector.
- (xi) The group hopes that it will be possible to enlarge this subset.
- (xii) Following the definition of informal sector as proposed, attempt should be made to estimate the size of the informal sector in terms of employment and its contribution to Gross Domestic Product (GDP) on a regular basis.
- 5. Further the following recommendations made at the fourth Meeting of Delhi Group held at Geneva in August 2000 are relevant in this context.
  - (i) Countries include the variable "place of work" in labour force and informal sector surveys and endorses recommendations of the ILO project on measurement of place of work as follows:

- a) The physical place of work where the worker spends most of the time – rather than the place of the economic unit to which he or she is attached, is the appropriate unit of classification when the unit of analysis is the worker.
- b) In order to identify specific types of workers such as home-based workers, home workers and street vendors, data on "place of work" will have to be cross-classified at least by industry, occupation and status in employment.
- (ii) The ICLS 93 definition of the informal sector is now being usefully implemented by an increasing number of countries to obtain estimates of the size of the employment in the informal sector and contribution in terms of value added. There is a need to emphasise separate estimation of employment of certain groups within the informal sector such as homebased workers and street vendors. Further, efforts need to be made for separate estimation of employment of certain vulnerable groups of workers such as out-workers, domestic workers, as well as precarious employment in the formal sector.
- (iii) A systematic evaluation of data quality of informal sector surveys, that have been conducted, be undertaken. Furthermore, countries are encouraged to report data quality indicators of their surveys.
- (iv) The Group should provide guidelines on the role/place of informal sector surveys within data collection programmes of national statistical systems. Guidance on the frequency of data collection and core statistics / indicators on the informal sector are important in institutionalising such data collection given the need for prioritising and economising resources.
- 6. The following recommendations made at the fifth Meeting of the Delhi Group held at Delhi in October 2001 are also relevant in this context.
  - (i) For developing a programme of statistics in the informal sector, the parallel use of several methods (in particular, household surveys and mixed household and enterprise surveys) is reiterated. The methods used

- should be documented in sufficient detail, so that data obtained from different sources can be compared and the differences, if any, explained.
- (ii) Data on informal sector should be collected at sufficiently frequent intervals, so that time series can be obtained to make it possible to monitor trends and developments.
- (iii) Procedures should be established for linking informal sector data obtained from existing sources (labour force surveys, mixed household surveys and enterprise surveys, economic census) with other sources (like household income & expenditure, consumer expenditure surveys, etc.) in support of the work of national accounts and for analysing the relationship of the informal sector with other topics like poverty.
- (iv) The concept of informal employment is distinct from the concept of employment in the informal sector. Informal employment (to be defined in terms of characteristics of jobs) extends from the informal sector (defined in terms of characteristics of enterprises) to other sectors. The definition and measurement of employment in the informal sector need to be complimented with a definition and measurement of informal employment.
- 7. We summarised in the above the developments and thinking so far in the Delhi Group in order to provide a suitable context within which efforts have to bemade to identify the nature and volume of work involved in developing and maintaining a user-oriented data archive for national data on informal economy.
- 8. We now turn our attention to some general issues in developing internationally comparable user-oriented data sets from national data sets.
- 9. A major issue in making comparisons, whether spatial or temporal, between one set of data and another is the comparability of the definitions and concepts used and of the data from which the estimates (statistics) have been derived. Data availability differs from country to country and may indeed differ for the same country overtime as survey questionnarires are altered either to increase the range of details collected or cut back to encourage increased response rates. Quality of data may also differ, in respect of population coverage and non-response bias for

example, and once again differences may occur not just between countries but over time as well. Even estimates that appear on the surface to use the same definitions and to be of the same quality can very soon be shown to be divergent once the 'fine print' is examined. There are therefore formidable obstacles to producing estimates which truly compare apples with apples rather present a series of 'fruit salads'. Given this situation, it is of paramount importance that when producers of statistics present their results, they should be accompanied by the most comprehensive documentation possible so that users can judge the relative quality of the data sets and derived estimates being compared.

- 10. Users should be able to find easily all the meta data (data about data) they need to interpret the statistics correctly. All this is simply good statistical practice. It is necessary for the national producers of statistics to develop generalised quality frameworks which should be completed for each of their statistical outputs. These ensure that comparable and consistent information is available on each statistical output from which the user can judge their fitness for purpose. Given the complexity of informal sector statistics, the wide range of definitions that can be used and the level of error or uncertainity to which the results are prone, ready availability of such meta data is doubly essential. It is therefore necessary to develop a Roubustness Assessment Report (RAR) for national data on informal sector which should encapsulate the information needed to assess fitness for purpose.
- 11. A RAR must describe in detail the data source from which the estimates are derived, the data collection methodology and any features which may mean that estimates are biased; assess the nature and size of response biases; report on data editing and imputation; define the terms used; report on the sensitivity of results to different assumptions; include comparisons with other sources of similar estimates, highlighting if any where alternative sources provide substantially different results and if possible identifying why this should be so; reference relevant previously published methodological work and identify any other factors (besides those listed here) either in the data set or in the social policy environment which users of data need to be aware of.

- 12. The first problem in developing a data archive is to set internal standards for accepting or rejecting a data-set. Selection criteria must be based on consistency of definition and quality, and the temptation must be resisted to include data-sets just because they will extend the range of countries or years covered. As with primary data producers, the main duty of an organisation assembling a secondary data-set is to document the origin and characteristics of all estimates included, according to their selection criteria and the information made available by the primary data producer. Some essential features of a data archive, keeping secondary data-sets, are:
  - a) Consolidation: In principle, multiple observations for the same country and the same date are justified where there are differences in definition or where different methods of calculation have been used. When there is no apparent reason for a difference, multiple observations need to be traced back to their original sources in order to identify the cause. It is important that data originators provide sufficient information for this to be possible. In view of their use in the past, keeping duplicate figures contained in earlier secondary data sets is valuable because it facilitates comparisons, but it should be clear that their status is that of memorandum items.
  - b) Comprehensiveness: When other secondary sources are used, the coverage of such sources should be exhaustive. Omitting observations that fail to meet some prespecified criteria may be convenient, but it may be preferable to include these unsatisfactory observations with a proper cautionary note.
  - c) Full documentation: Precise references and table numbers of the source data and a full account of all adjustments made should be given, so that observations in the data-set can be reproduced and their genealogy reconstructed.
  - d) Replication: As secondary data sets become available on-line, their producers are likely to update and revise them, occasionally or on a regular basis. To address replication problems, there should be a

- numbering of different releases of the data sets, and all versions should be conserved and remain available.
- 13. The burden assumed by a data archive of national data-sets is a huge one. The managers of a data archive attempt to overcome all of the theoretical and practical biases found in "original" data-sets. Moreover, they attempt to make these series comparable overtime and sometime across countries. Their task is most difficult and complicated one, and since the devil is always in the details it is important that these details are always made readily available.
- 14. Increasingly economists and social policy analysts are focusing attention on the trends in informal sector or economy dynamics. The availability of sufficiently long series of data-sets over a long period of time in some nations is making it possible for analysts to study the determinants and consequences of changes over long periods. The future will bring more, not fewer, uses of such data, and policy discussions of national governments and international bodies may be heavily influenced by such trends and analyses of trends. For this debate to be wellinformed one, high standards must be set for time series data on informal sector or economy. Conceptually, cross-time comparisons within a country are not really different from cross-country comparisons at a point of time. The general consistency requirements are exactly the same. However, trend data need a separate treatment for at least two reasons. First, cross-time comparisons within a country appear to be based - and very often are based - on more consistent definitions and source data than are cross-country comparisons, mainly because they tend to come from the same producer. This is the "originator" of the estimate; the party with the broadest knowledge of the data. However, this assumption may be unwarranted if the producer changes definitions, survey practices, or experiences a host of other non-random sampling or non-sampling errors which change overtime. There are, in fact, many cases where published time series are not internally consistent. A good general rule is that the longer the time frame, the more likely are non-random differences to occur. A major task is therefore to make the producer and the user aware of these problems, and for the producer to be as consistent as possible, to provide overlapping observations

when changes are implemented, and to provide historical data on changes in time series. The second reason is that the story gets much more complicated when we compare trends across countries, because we have to impose - in principle, a double (spatial and temporal) consistency constraint. Double international harmonisation across nations and over time is the ideal outcome. However, such a project is daunting. Even when complete harmonisation across nations is a clear objective from the outset, experience in various data sets has shown how difficult this is to achieve in practice. The Luxembourg Income Study (LIS) has made towards point-in-time cross-national consistency. considerable progress However, both LIS harmonisation techniques and differences in national surveys made available to LIS at different points in time hamper it from achieving double consistency over time. Hence, one must ask from a practical point of view, what can be accomplished with existing national time series.

### Availability and use of Data sets on Informal Economy in India

- 15. Having outlined some general issues in development and maintenance of a useroriented data archive for national data sets on informal economy, we now focus on specific experience of India in the availability, maintenance mechanisms and usage of data sets on informal sector or economy and related areas.
- 16. The Indian statistical system generates data on a variety of economic and social phenomena through six approaches. First, Acts like the Census Act and the collection of Statistics Act enable it to conduct large scale enquiries for collection of data at regular intervals. Second, statutory returns prescribed under several other Acts like the Factories Act and the implementation of these Acts generate data on matters covered by such legislation. Third, large scale sample surveys such as those conducted by the National Sample Survey Organisation (NSSO) throw up data on various aspects of the specific subject areas covered by these surveys. Fourth, data published by individual ministries, departments and organisations of the Central and the State Governments reflect the emerging situation in different sectors and sub-sectors of the economy. Fifth, the

administrative reports of these organisations supplement such data. And lastly, information derived from the data flows mentioned above, like the National Accounts Statistics and indices of prices and production provide readily usable inputs for research and policy as well as for monitoring the impact of policies.

- 17. Although the informal sector has gained importance only in the last 2 decades or so as a sector with a sizeable development potential and the term "informal sector" itself was used in an official document for the first time in the report of a comprehensive employment mission in Kenya undertaken by ILO in 1972, in India Professor P.C. Mahalonobis, the Founder of the Indian National Sample Survey, organised collection of data on "Household Enterprises" in the very first round (October 1950-March 1951) of National Sample Survey (NSS). In 1951 and 1952 during the 3<sup>rd</sup> and 4<sup>th</sup> rounds of NSS small scale manufacturing and handicrafts, transport, trade, profession, services and financial operations were covered. Since then NSS collected data on some segment or other of unorganised sector comprising largely the economic units outside the public, corporate and cooperative sectors and also those registered under sections 2 m (i) and 2 m (ii) of Factories Act during the years 1953-56, 1958-60, 1964-65, 1968-70, 1974-75, 1978-81, 1983-86, 1988-2002. In 1999-2000, for the first-time, the survey was named as 'Survey on Informal Sector' and limited to the coverage of non-agricultural un-incorporated enterprises and the survey was also a household cum-enterprise survey. The experience of the National Sample Survey is thus spread over nearly four decades in the collection, processing and analysis of data on enterprises forming part of informal sector and informal economy.
- 18. In addition to the above there have been other significant large scale data collection efforts in India which resulted in the data on enterprises/workers forming part of the informal economy together with the data on enterprises/workers falling outside the informal economy. These data sets are extremely valuable in understanding the linkages between informal economy and the rest of the economy.

19. The office of the Development Commissioner for Small Scale Industries (DCSSI) defines a small scale industrial unit on the basis of investment limit in plant and machinery, although the investment limit has undergone change over the years. A sample survey of Small Scale Industries was organised by CSO in 1970-71. The First Census of Small Scale Industrial units was conducted in 1973-74 covering units registered with the State Directorate of Industries. The second census was conducted with reference year as 1987-88. The Third Census is being conducted during 2002 with reference year as 2000-2001 covering registered units and for the first time the unregistered units will also be covered through a large scale sample survey. A large number of SSI units form part of the informal sector.

#### 20. In 1971 population census, establishment schedules were also canvassed.

The first Economic Census was conducted during 1977 covering non-agricultural enterprises employing at least one hired worker on a fairly regular basis. Based on the sampling frame provided by the Economic Census 1977, follow-up sample surveys of enterprises were conducted using NSS manpower resources. The second Economic Census was conducted in 1980 along with the house listing operations of 1981 population census. This census covered all enterprises, employing any hired worker or not, engaged in both agricultural and non-agricultural sectors except crop production and plantations. Again the sampling frame provided by the second Economic Census was used for follow-up surveys organised through NSSO. The third Economic census in 1990 was synchronised with the house listing operations of the population census 1991 with the same coverage as the second Economic census and the follow-up surveys were done by NSSO. The fourth Economic census was conducted in 1998 independent of the Population Census with the same coverage as the third Economic Census and follow-up sample surveys were launched through NSSO during 2000-2002. The four economic censuses conducted so far have covered enterprises belonging to informal sector as well as those falling outside the informal sector. The data bases generated by these censuses are valuable in the sense that disaggregated numbers of enterprises and related characteristics are available not only at national and state levels but also at district and lower levels.

21. There are three other important sources of employment data in India.

The population census conducted at an interval of ten years, the latest being in year 2001, provides data on workers according to industrial categories. The employment and unemployment surveys conducted through NSSO following the household approach also provide data on workers at national and state levels according to industrial categories. The Directorate General of Employment and Training brings out the estimates of employment in the organised segment of the Indian economy based on the information collected through the network of employment exchanges in the country under the Employment Market Information (EMI) programme. These data cover all establishments in the public sector irrespective of their size and non-agricultural establishments in the private sector employing 10 or more persons. If the EMI employment is subtracted from the Population Census employment, then employment estimates which include mostly informal employment can be obtained at national, state and district levels. If the EMI employment in subtracted from the employment estimates provided by NSSO employment and unemployment surveys, estimates of employment including mostly informal employment can be derived at national and state levels. These residual methods of estimating employment in unorganised or largely informal sector are also used in some analyses in India.

22. Each one of the data sets available in India has quality problems specific to the data set. We are not discussing these quality aspects in this paper but these are all important sources and should be included with detailed quality assessments in a data archive applicable to India for conducting studies on informal economy. Most of the data sets starting from 1990 are available on computer media and micro or unit level data, now being supplied under National Policy on Data Dissemination, will be of immense use for undertaking specific analytical studies. Reports containing key estimates are available in respect of data sets collected prior to 1990. Comparisons over time and across different sources of data can be extremely valuable. The work

involved in assessing the quality of micro data sets is huge and painstaking but in the end will be highly rewarding. For most of the data sets meta data reports can be prepared. Many of these data sets have already been used by both governmental and research organisations and academic scholars in a large number of analytical studies having policy implications.

#### **Specification of Indicators on Informal Economy**

- 23. We now attempt to identify some key indicators for analysing growth dynamics of informal sector, based on Indian experience. The list is, however, not comprehensive and modifications are possible depending on data availability. In this connection it is pertinent to mention key policy concerns of informal economy. We need statistical indicators to address these policy concerns.
- 24. Government often remain unaware of the contribution of the informal economy and the problems faced by those who work in it. The links between the informal and formal parts of the economy are not well researched. Government need to develop innovative and supportive policies that recognise the contributions of the informal economy and its workforce, including their constraints and needs. Governments should intervene to promote the productivity and growth of informal enterprises. Labour intensive growth of informal enterprises is likely to create more jobs than capital intensive growth of formal enterprises. It also costs much less to create jobs in the informal economy than in formal economy. Principles of equity, poverty reduction and efficiency all provide reasons for Governments to intervene in the informal economy. Equity and welfare rationales for Government intervention in the informal economy stem from the vulnerability of those working in the sector. The increasing number of informal workers lack market power and adequate insurance against risk. As a result, those working in the informal economy are more likely to be poor than those working in the formal economy. increasing informalisation of labour. - both in developed and developing countries can wipe out decades of social progress. Progressive policies towards the informal

economy can create a new contract between the state, business, organised labour and other social actors including organisations of informal workers and producers. Without addressing the employment needs, constraints and vulnerablities of those who work in the informal economy, efforts to reduce poverty will not succeed. Also support to informal enterprises and workers will lead to sustainable growth. There is no global or universal policy prescription for the informal economy. There is a need to adopt context specific approach in developing appropriate policies for the informal economy. Relations between men and women, their different positions in the economy and their access to and control of resources are crucial to understanding the informal eoconomy. A gendered approach in the informal economy is a pro-poor approach. Supporting women's work will, in effect, lead to support for poor households and poor children. To ensure that appropriate policies are put in place, the informal economy and its workforce (male and female separately) needs to be **visible** to policy makers. Everywhere, around the world, the informal workforce is under enumerated in official statistics. Until they are fully counted and valued in official labour force statistics and in national accounts, policy makers will continue to underestimate the size and undervalue the contribution of the informal workforce. Efforts are therefore essential to improve statistics and develop and disseminate appropriate statistical indicators on the size, composition and contribution of the informal economy worldwide. It is in this context and based on Indian experience the following set of statistical indicators are suggested.

#### **Statistical Indicators**

1. Percentage of (Principal + Subsidiary) non-agricultural workers in informal sector enterprises to total non-agricultural workers (P+S) separately for each of the categories: rural (male + female), rural male, rural female, urban (male + female), urban male, urban female, (rural + urban) male + female, (rural + urban) male, (rural + urban) female.

- 2. Percentage of female non-agricultural workers (P+S) in proprietary enterprises owned by females to total non-agricultural workers (P+S) separately for each of the categories: rural, urban, rural + urban.
- 3. Percentage of non-agricultural own-account workers (P+S) in informal sector enterprises to total non-agricultural own-account workers (P+S) separately for each of the categories: rural (male + female), rural male, rural female, urban (male + female), urban male, urban female.
- Indicators at 3 above separately for each of the categories: (selfemployed) employers, un-paid family workers, employees, casual wage labourers.
- 5. Percentage distribution of own-account, (self-employed) employer, unpaid family, employee, casual wage labour non-agricultural workers (P+S) in informal sector enterprises separately for each of the categories: rural (male + female), rural male, rural female, urban (male + female), urban male, urban female.
- 6. Comparison of indicators at 5 above with the corresponding indicators in all non-agricultural workers (P+S).
- 7. Percentage of workers (P+S) in informal sector enterprises to total workers (P+S) separately in each of the broad industry of work groups: mining and manufacturing, construction, wholesale and retail quarrying, traders and repair services, hotels and restaurants, transport, storage and communications, financial intermediation, real estate, renting and business activities, education, health and social work, other community, social and personal service activities (excluding domestic services), private households with employed persons:- separately for each of the categories: rural (male + female), rural male, rural female, urban (male + female), urban male, urban female.
- 8. Percentage of non-agricultural workers (P+S) engaged in the informal sector enterprises by location of workplace: no fixed place, own dwelling, own enterprise/unit/office/shop but outside own dwelling, employer's

dwelling, employer's enterprise/unit/office/shop but outside employer's dwelling, street with fixed location, construction site, others separately for each of the categories: rural (male + female), rural male, rural female, urban (male + female), urban male, urban female.

- 9. Comparison of indicators at 8 above with the corresponding indicators in all non-agricultural workers (P+S).
- 10. Percentage of non-agricultural workers (P+S) engaged in enterprises with workers less than 6, 6-9, 10-19, 20 & above separately for all enterprises, informal sector enterprises, proprietory enterprises, partnership enterprises for each of the categories: rural (male + female), rural male, rural female, urban (male + female), urban male, urban female.
- 11. Percentage of non-agricultural workers (P+S) engaged in enterprises maintaining written accounts separately for all enterprises, informal sector enterprises, proprietary enterprises, partnership enterprises for each of the categories: rural (male + female), rural male, rural female, urban (male + female), urban male, urban female.
- 12. Percentage of self-employed non-agricultural workers (P+S) by location of workplace: no fixed place, own dwelling, own enterprise/unit/office/shop, employer's dwelling, employer's enterprise/unit/office/shop, street with fixed location, construction site, others separately for each of the categories: rural (male + female), rural male, rural female, urban(male + female), urban male, urban female.
- 13. Percentage of self-employed non-agricultural workers (P+S) working wholly or mainly under product specification separately for each location of workplace: no fixed place, own dwelling, own enterprise/unit/ office/shop, but outside dwelling, employer's dwelling, employer's enterprise/unit/ office/shop but

outside employer's dwelling, street with fixed location, construction site, others; for each of the categories: rural (male + female), rural male, rural female, urban (male + female), urban male, urban female.

- 14. Percentage of self-employed non-agricultural workers (P+S) who worked wholly or mainly under the given product specification by type of provision for credit/rawmaterial/equipment: own arrangement, provided by the enterprise for (a) credit only, (b) raw material only, (c) equipment only, (d) credit and raw material only, (e) credit and equipment only, (f) raw material and equipment only and (g) credit, raw material and equipment separately for each of the categories: rural (male+female), rural male, rural female, urban (male+female), urban male, urban female.
- 15. Percentage of self-employed non-agricultural workers (P+S) who worked wholly or mainly under given product specifications by number of outlets of disposal: one, two, three or more separately for each of the categories: rural (male + female), rural male, rural female, (male + female), urban male, urban female.
- 16. Percentage of self-employed non-agricultural workers (P+S) who worked wholly or mainly under given product specifications by basis of payment: piece rate, contract rate separately for each of the categories: rural ( male + female ), rural male, rural female, urban ( male + female ), urban male, urban female.
- 17. Percentage of self-employed non-agricultural workers (P+S) who worked wholly or mainly under given product specifications by type of specifications: written, oral separately for each of the categories: rural (male + female), rural male, rural female, urban (male + female), urban male, urban female.
- 18. Number of informal sector enterprises by type of enterprise (own account enterprise or establishment or all) separately for rural, urban and (rural + urban).

- 19. Number of informal sector enterprises by type of enterprise (OAE or establishment or all) and according to broad industry group: manufacturing, construction, trading and repair services, hotel and restaurants, transport, storage and communications, financial intermediation, real estate, renting and business activities, education, health and social work, other community, social and personal services (excluding domestic services) separately for rural, urban and (rural + urban).
- 20. Number of workers engaged in informal sector enterprises by type of enterprise (OAE or establishment or all) and according to broad industry group as at item 19 above separately for rural, urban and (rural + Urban).
- 21. Number of workers engaged in informal sector enterprises by type of enterprise (OAE or establishment or all) and by type of worker (working owner, hired worker, other worker/helper), nature of employment (full time, part time) and sex (male, female) separately for rural, urban and (rural + urban).
- 22. Percentage of informal sector enterprises by number of workers (1,2,3,4,5, upto 5,6 to 9,10 to 19) for each type of enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 23. Average number of workers per enterprise by type of informal sector enterprise (OAE or establishment or all) and by broad industry group as at item 19 above separately for rural, urban and (rural + urban).
- 24. Annual value added per worker by broad industry group as at item 19 above and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).

- 25. Annual value added per enterprise by broad industry group as at item 19 above and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 26. Annual value of emoluments per hired worker working in informal sector establishments by broad industry group as at item 19 above separately for rural, urban and (rural + urban).
- 27. Value of fixed assets owned per enterprise by broad industry group as at item 19 above and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 28. Value of fixed assets leased/hired per enterprise by broad industry group as at item 19 above and by type of informal sector enterprise (OAE or establishment or all)separately for rural, urban and (rural + urban).
- 29. Value of fixed assets (owned +hired/leased) per enterprise by broad industry group as at item 19 above and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 30. Value of net additions to fixed assets during last 365 days and annual rent payable on hired fixed assets (separately) per enterprise by broad industry group as at item 19 above and by type of informal sector enterprise(OAE or establishment or all) separately for rural, urban and (rural + urban).
- Outstanding loans per enterprise by broad industry group as at item 19 above and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 32. Percentage of loan taken from each agency: central & state term lending institutions, government, public sector & commercial banks, cooperative banks &

societies, other institutional agencies, money lenders, business partners, suppliers/contractors, friends & relatives and others to total outstanding loan separately for each broad industry group as at item 19 above and by type of informal sector enterprise (OAE or establishment or all) in rural, urban, (rural + urban) areas.

- 33. Percentage of informal sector enterprises owned by females (proprietary female) separately for rural, urban, (rural + Urban) areas.
- 34. Percentage of enterprises maintaining accounts by type of informal sector enterprise (OAE or establishment or all) separately in rural, urban and (rural + urban) areas.
- 35. Percentage of enterprises registered with any agency by type of informal sector enterprise (OAE or establishment or all) separately in rural, urban and (rural + urban) areas.
- 36. Percentage of enterprises by type of location: within household premises, outside household premises with fixed location (in a permanent structure, in a temporary structure, without any structure), without fixed location (mobile market, street vendor, construction site) and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 37. Percentage of enterprises working under no contract, working solely with master enterprise/contractor, working mainly for contractor but also for other customers, working mainly for customers but also on contract and working solely for customers by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 38. Percentage of enterprises by type of supply of equipment: procured by the entrepreneur, supplied by master enterprise/contractor, partly procured by the

entrepreneur and partly supplied by master enterprise/contractor and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).

- 39. Percentage of enterprises by type of supply of raw materials: procured by the entrepreneur, supplied by master enterprise/contractor, partly procured by the entrepreneur and partly supplied by master enterprise/contractor and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 40. Percentage of enterprises working with design specified by contractor or no design specification by contractor and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 41. Percentage of home based enterprises by type of contract: Solely or mainly for master enterprise/contractor, mainly or solely for customers and by equipment self procured: yes or no and by raw materials self procured: yes or no and by design specified by contractor: yes or no for different types of informal sector enterprises (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 42. Percentage of enterprises by nature of operation: perennial, seasonal or casual and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 43. Percentage of enterprises by number of months operated in last 365 days: upto 3 months, 4 to 6 months, 7 to 9 months, more than 9 months and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 44. Percentage of enterprises by major problem faced by them: shortage of capital, lack of lighting facility, problem of power cut, lack of infrastructure facilities,

local problem, competition from larger units, non-availability of labour, labour problems, raw material/fuel not available, non-recovery of service charges, others problems, no specific problem and by type of informal sector enterprise(OAE or establishment or all) separately for rural, urban and (rural + urban).

- 45. Percentage distribution of entrepreneurs by number of other economic activities undertaken: Zero, 1,2,3,4,5 or more and by broad industry group as at item 19 above for each type of informal sector enterprise (OAE or establishment or all)separately for rural, urban and (rural + urban).
- 46. Percentage of enterprises by growth status of the enterprise over last three years: expanding, stagnant, contracting and by broad industry group as at item 19 above for each type of informal sector enterprise(OAE or establishment or all) separately for rural, urban and (rural + urban).
- 47. Percentage of enterprises by number of source agencies for purchase of basic inputs: no source agency, one, two or more and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 48. Percentage of enterprises by number of destination agencies for sale of final product/services: one, two or more and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
- 49. Structural ratios by broad industry group as at item 19 above and by type of informal sector enterprise (OAE or establishment or all) separately for rural, urban and (rural + urban).
  - a) Ratio of total receipts to employment
  - b) Ratio of total receipts to fixed assets

- c) Ratio of total receipts to operating expenses
- d) Ratio of value added to employment
- e) Ratio of value added to fixed assets
- f) Ratio of value added to total receipts
- g) Ratio of fixed assets to employment.

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