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**REVISION OF THE INTERNATIONAL RECOMMENDATIONS  
FOR STATISTICS ON ECONOMIC ACTIVITIES**

Discussion paper

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## REVISION OF THE INTERNATIONAL RECOMMENDATIONS FOR STATISTICS ON ECONOMIC ACTIVITIES

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# REVISION OF THE INTERNATIONAL RECOMMENDATIONS FOR STATISTICS ON ECONOMIC ACTIVITIES

## DISCUSSION PAPER Statistics Division UNITED NATIONS

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### *Abstract*

*With a view to establish a uniform pattern for the measurement of economic activities on a comparable basis, international recommendations have been formulated by the United Nations for collection of statistics on a number of economic activities such as industrial, construction, distributive trade and other services. International recommendations for industrial statistics were first formulated in 1953 and in keeping pace with the economic and statistical developments, these have been revised from time to time, the last being in 1983. Since then, significant developments have taken place both in the area of economic accounting – in terms of 1993 System of National Accounts and approach of countries to the industrial statistics making it imperative to revise the international recommendations for industrial statistics. The purpose of this discussion paper is to initiate discussion on the revision of international recommendations for statistics on economic activities. Although the paper takes the International Recommendations for Industrial Statistics issued by the UN in 1983 (hereinafter referred to as IRIS83) as the point of reference for discussion, it covers the same issues and problems that must be faced by statisticians in designing data collection programmes for other areas of economic activities. Issues/topics which need to be reviewed in the revised guidelines/recommendations have been identified and briefly discussed and each section of the discussion paper concludes with a number of questions for discussion and for inviting countries to make contributions to conceptual issues and country practices.*

*There are three major issues raised in this paper that encompass all other sub issues discussed: (1) Should census value added be made as close as possible to the concept of value added in national accounts? (2) Should ancillary units be treated as establishments so that regional value added and GDP can be properly calculated? (3) Should industrial statistics be collected as an integral part of an economic survey? The reasons for issue (3) are that many large enterprises may engage in the production of both goods and services, and that in developing countries, surveys of small and household enterprises may be based on household survey or area canvassing by sampling technique and therefore it is not possible to know a priori the activity of every establishment in order to focus only on industrial statistics.*

## **A. Objective**

1. Business activities account for a substantial portion of the total economic activities in every country both in terms of the contribution to the gross domestic product and its share in the total employment. Data on business activities are required by Government, business community and others for a variety of purposes. One of the most important is, undoubtedly, to provide a basis for assessing trends in the economy. For this purpose annual and more frequent estimates on the contribution of business activities to the national economy play an important role.

2. Comparability of economic statistics compiled by countries has been one of the prime concerns of the United Nations Statistical Commission besides development of world economic statistics on the basis of standard concepts. As the economies of the world become more integrated and interdependent, standardization can lead to a better understanding of the interplay of economic forces and a more intelligent solution of economic problems. For this purpose international recommendations for collection and reporting of economic statistics have been formulated by the United Nations (UN) from time to time. For example, international recommendations for Industrial Statistics were first formulated in 1953 [1] and subsequently revised in 1960[2], 1968[3] and 1983[4]. For Construction Statistics, international recommendations were first issued in 1968[5] and revised in 1997[6]; and for Statistics of the Distributive Trades and Services first issued in 1958[7] and revised in 1975[8]. These recommendations have served a useful guide to countries which have undertaken statistical inquiries besides stimulating some countries to institute statistical system for collecting economic statistics.

3. Given:

- (a) Changes in the 1993 System of National Accounts and the current process to update it,
- (b) Experience of countries in both developing industrial statistics system and conducting industrial inquiries for implementing the World Programme of Industrial Statistics sponsored by the United Nations Statistical Commission<sup>1</sup>,
- (c) Efforts by many countries to integrate data collection on establishment and enterprises,
- (d) Efforts by some countries to collect data that serve both national accounts statistics but also regional accounts statistics,
- (e) Efforts to minimize the differences between the concept of census value added and national accounts value that require additional data collection or assumptions to convert census value added to national accounts value added,

there is a need to review the international recommendations on economic statistics taking into account the economic/statistical developments since these were formulated last. The purpose of this discussion paper is to initiate discussion for the revision of the *International Recommendations on Industrial Statistics* issued by the UN in 1983 (hereinafter referred to as IRIS83) and to broaden the discussion to other areas of economic statistics. Issues/topics which need to be reviewed in the revised guidelines/recommendations have been discussed and each section of the discussion paper concludes with a number of questions for discussion and for inviting countries to make contributions for the purpose.

## **B. Title, scope of the publication**

### Current recommendations

4. International recommendations for collecting and reporting of economic statistics have been formulated by the UN on industrial statistics [4], construction [5] and trade and other services [8]. International Recommendations on Statistics of the Distributive Trades and Services [8] covers wholesale and retail trade and some other but not all services such as hotels and restaurants, real estate, machinery renting and leasing, data processing, advertising, motion pictures, broadcasting, photography, repairs and some personal services. Construction and other economic activities which have their own characteristics are covered in separate international recommendations such as construction, agriculture, financial

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<sup>1</sup> Whereas, fifty four countries provided data qualifying for publication based on 1973 World Programme [10], the number of countries providing such data based on 1983 World Programme rose to 89 [11].

statistics and government statistics. Although not being published as an international standard, the United Nations Statistics Division, also introduced a more fully integrated Rational Survey Technique (FIRST) that covers all market economic activities, including large and small units, with a view to measure value added based on the national accounts concept [12] as a way to reduce cost of data collection.

### Comments

5. Many countries have integrated economic surveys that cover all economic activities except agriculture (i.e. crop production and livestock), forestry, fishing hunting and public administration sector. There are some advantages of doing this:

- (a) Most developing countries focus on collecting data only on agriculture and industrial activities, but ignore services activities. An integrated economic survey design would broaden the scope of economic activities. The survey design may have the same general format but with contents varied to meet the data needs for specific economic activities, for instance, specific contents may be separately designed for mining, construction, manufacturing, transport, trade and other services, etc.
- (b) The cost of carrying out surveys for different economic activities (i.e. one for manufacturing, one for trade and services and one for construction) is very high for medium and small establishments where it is not easy to identify their principal economic activity before separate surveys are carried out. Full enumeration of all units at fixed locations or households is not possible in developing countries and therefore full coverage has to be implemented by sampling surveys where their activities are identified by ISIC. This means that a method similar to FIRST can be applied.
- (c) Large incorporated enterprises may still be fully enumerated and surveyed since they are small in numbers and these census-type surveys can be carried out at a different time schedule.
- (d) Most service activities are similar to manufacturing in nature in business accounting, except for some differences such as the definition of output and the existence of inventory of output. Supplementary guidelines and forms may be easily added to cover special services such as wholesale and retail trade, construction and financial services such as insurance and bank-like services.

Question 1: *Should the scope of new document be extended to include all economic activities except agriculture, forestry, fishing, and hunting and the Public Administration?*

*The revised recommendations/guidelines may possibly be issued as a International Recommendations on Business Statistic or International Recommendations on Economic Census and surveys.*

### **C. Coverage of activities**

#### Current recommendations

6. IRIS83 recommends countries to provide estimates that cover all recognizable industrial establishments. The coverage of the establishments in the various activities may be attained by a complete enumeration of the relevant establishments or by using sampling techniques. The method of enumeration (i.e. mail, interview) chosen will depend on the circumstances in each country. Since circumstances differ, it may not be possible to make international recommendations in this regard.

7. Government departments, establishments and similar units should be included if they are mainly engaged in producing goods and services classifiable to industry, irrespective of the fact whether these are market or non-market producers. Efforts should be made to encompass the activities in an industry only if they constitute a major part of the department or if they account for a substantial part of the total national output of an industry.

8. As the situations differ between countries, no recommendations have been made by IRIS83 on a fixed cut-off point to distinguish between the large and small establishment and as the situation varies in each country it is not possible to settle on a suitable distinction that is internationally useful.

#### Comments

9. The recommendations should provide more guidelines to cover production activities of small units particularly of un-incorporated units which also produce substantial share of manufacturing goods in developing countries. These units may be part of households operating from fixed locations or mobile units. In countries where household units contribute significantly to industrial output, efforts should be made to measure the activity at least infrequently and updated to the current accounting period using some indicators. Units falling within the industrial sector should be included in the scope of the business inquiry, but some countries may wish to record the results of household activity separately. The industrial

output of units primarily engaged in other economic activities may be of great interest in production studies and the inquiry results might include separate information on such output. This should not, however, be attributed to the industrial sector. In order to avoid double counting, demarcation lines should be drawn and guidelines should be provided to cover:

- (a) Incorporated enterprises (corporations)
- (b) Unincorporated enterprises which operate outside home at fixed or non-fixed locations
- (c) Unincorporated enterprises which operate at home.

Question 2: *Should separate recommendations be provided on how to cover the unincorporated units or small establishments? What are the best practices in this area?*

Question 3: *Should recommendations be made regarding the size of large, medium and small enterprises by employment? What units should be covered by complete enumeration instead of by sampling technique? Should the decision be left to countries to decide?*

## **D. General character of the recommendations**

### **1. No distinction between the developed and the developing countries**

#### Current recommendations

10. IRIS83 recommendations make no distinction between the developing and developed countries. The aims are (a) to provide the same conceptual framework and the same scope of coverage, (b) to encourage the orderly development of national inquiries into industrial statistics, and (c) to guide national activity in taking census of businesses, with a view to improving the comparability of the business statistics available at the international level.

Question 4: *Cost of data collection of numerous small establishments in developing countries is high. Should the revised recommendations have a special section dealing with issues in developing countries?*

### **2. Reference period**

11. IRIS83 recommends, in general, to use as the reference period, the calendar year cycle beginning with 1 of Jan and ends with 30 Dec. However, where data are more readily



available for particular establishments on a different fiscal-year basis, it may be necessary to accept data on that basis.

Question 5: *What are the best practices in converting data to the same reference period?*

### **3. Statistical unit**

12. IRIS83 was published before the approval of SNA93 and therefore could not cover the units that SNA93 deals with. In this part, a brief summary of the units discussed in SNA93 is presented in table 1. After that, the concept of establishment for the collection of production data is reviewed. Other related issues such as the treatment of multi-territory enterprises, identification of branches, special purpose entities and finally the treatment of ancillary units are also reviewed taken into account the current update of SNA93. The main concern in this document is to identify the units, particularly ancillary units and special purpose entities that may be candidates for being treated as institutional units in the SNA93 update. If they were classified as institutional units, corresponding establishments would have to be identified for the purpose of collecting data on their output and value added. In this case, output of ancillary units/activities, and of special purpose entities (SPEs) that have little or no employment, may be valued at cost.

#### **3.1 Establishment as a producer unit**

##### Current recommendations on establishment

13. For the purpose of Industrial Statistics, the ‘statistical unit’ is defined as the entity for which the required items of data are compiled. IRIS83 recommends the establishment as the statistical unit for collection of production data and enterprise for additional data on non-industrial services and financial flows. RISIS83 recommends to:

- (a) use the enterprise as the collection agent
- (b) make the enterprise responsible to provide complete returns on establishments;
- (c) accord low priority to data on enterprise and does not discuss much about the issue.

14. An establishment can be defined, ideally, as an economic unit that engages, under a single ownership or control - that is, under a single legal entity – in one, or predominantly one, kind of economic activity at a single physical location. This ideal concept of the establishment is applicable in many of the situations encountered in industrial inquiries, particularly in manufacturing. In the concept of the SNA at a practical level, an

establishment, may be an enterprise or part of an enterprise, at a specific location, that has accounts on production with output, and intermediate consumption, etc. and output must be transacted with other establishments as sale, intra-company delivery, barter or for own gross capital formation.

15. Under the existing recommendations, an establishment is the most detailed unit for which the range of production data required is normally available. Also, data collected by establishments make it possible to be regrouped according to such characteristics as kind of activity, geographical area and size, making it analytically more useful.

16. In many cases, a non-resident business sets up a production unit operated under contract, for construction for example or as a legal entity such as a branch in order to undertake operations in the economy. In such cases, identification of such an entity for the purpose of data collection requires identification of establishment to these units.

Table 1. Current and proposed treatment of units

|  | Description  | SNA treatment   | Possible changes   |
|--|--|---|--|
| 1. Institutional units   | An institutional unit may be defined as: An economic entity that is capable, in its own right, of owning assets, incurring liabilities and engaging in economic activities and in transactions with other entities. SNA, para. 4.2   | For collecting data on production, sub-units of institutional units may be identified separately as establishments if they have separate accounts on production and fixed assets and especially locate in separate geographical regions |  |
| 2. Companies, corporations   | A legal entity, created for the purpose of producing goods or services for the market, that may be a source of profit or other financial gain to its owner(s); it is collectively owned by shareholders who have the authority to appoint directors responsible for its general management. SNA, para. 4.23  | Institutional units   |  |
| 3. Groups of corporations (conglomerates) and parent company with significant production | Large groups of corporations, or conglomerates, may be created whereby a parent corporation controls several subsidiaries, some of which may control subsidiaries of their own, etc. Two different types of parent corporation may be distinguished. The first consists of a corporation with significant production of its own which acquires control over other corporations in order to strengthen its own position as a producer. It may, for example, acquire control of a corporation that supplies it with components, or it may acquire control of a competitor. SNA, para. 4.36 | With the exception of ancillary corporations, each individual corporation should be treated as a separate institutional unit, whether or not it forms part of a group.  |  |
| 4. Holding companies (parent company)  | The second type of group of companies is called a holding company if its principal function is to control and direct a group of subsidiaries, without having any other significant production of its own. SNA, para. 4.37  | Institutional units.<br>Holding corporations are classified as financial if the preponderant type of activity of the group of corporations as a whole is financial. SNA, para. 4.100  | Holding companies may be classified to financial sectors |

| Table 1. Current and proposed treatment of units (continued) |   |  |  |
|--|---|--|--|
|  | Description   | SNA treatment  | Possible changes   |
| 5. Subsidiary companies                                      | Corporation B is said to be a subsidiary of corporation A when:<br>(a) Either corporation A controls more than half of the shareholders' voting power in corporation B; or<br>(b) Corporation A is a shareholder in corporation B with the right to appoint or remove a majority of the directors of corporation B. SNA, para. 4.32   | Institutional unit.<br>Control criterion is used to classify these units into public corporations or foreign direct investors corps.   |  |
| 6. Associate corporations                                    | Corporation B is said to be an associate of corporation A when corporation A and its subsidiaries control between 10 per cent and 50 per cent of the shareholders' voting power in B so that A has some influence over the corporate policy and management of B. SNA, para. 4.34  | Independent institutional unit, though it may be classified as public corporations or Foreign direct investors corps.  |  |
| 8. Branches  | Branches are units of non-resident corporations may be set up in a country to carry out their activities  | When branches engaged in significant amounts of production over long periods of time in other countries, such branches are treated as quasi-corporations that are separate institutional units resident in the countries in which they are located. SNA, para. 4.24  | Proposed to be treated as institutional units even if they do not have physical presence as long as their production is significant.   |
| 9. Ancillary corporations                                    | An ancillary corporation may be defined as: a subsidiary corporation, wholly owned by a parent corporation, whose productive activities are ancillary in nature: that is, are strictly confined to providing services to the parent corporation, or other ancillary corporations owned by the same parent corporation. SNA, para. 4.40  | Ancillary activity. Ancillary corporations are not treated as separate institutional units in the System. When a parent corporation has created a single ancillary corporation, the ancillary corporation should be treated as an integral part of the parent and its accounts consolidated with those of the parent. When a parent corporation has created several ancillary corporations, they should all be combined with the parent corporation to form a single institutional unit. SNA, para. 4.43 | Proposed to be treated as separate institutional unit and also establishments (similarly to other ancillary units).<br><br>Separately identified as an economic activity (ISIC) depending on activities, which may be headquarter, warehousing, etc. |
| 10. Cooperatives, limited liability partnership              | In general, all entities, however they may describe themselves or whatever they may be called, which are set up for purposes of engaging in market production, which are capable of generating a profit or other financial gain for their owners and which are recognized at law as separate legal entities from their owners who enjoy limited liability, are treated as corporations in the System. SNA, para. 4.47 | Independent institutional units.   |  |

Table 1. Current and proposed treatment of units (continued)

|                                 | Description   | SNA treatment  | Possible changes   |
|---------------------------------|---|--|--|
| 11. Multi-territory enterprises | Multi-territory enterprises are single enterprises that have substantial operations in two or more territories but for which branches are not identified.   | No guideline.  | Resident branch may be imputed. Their transactions may be allocated to the countries of registry in proportion to the amounts of financial capital that the countries have contributed or in proportion to their shares in the equity of the corporation |
| 12. Quasi-corporations          | Quasi-corporations are unincorporated enterprises that function as if they were corporations. They must, of course, keep a complete set of accounts or owned by a non-resident institutional unit that is deemed to be a resident institutional unit because it engages in a significant amount of production in the economic territory over a long or indefinite period of time. SNA, 4.45 | Institutional unit.  |  |
| 13. Establishment               | The establishment combines both the kind-of-activity dimension and the locality dimension. An establishment is defined as an enterprise, or part of an enterprise, that is situated in a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added. SNA, 5.21        | Producer unit  |  |
| 14. Ancillary activities        | By definition, an ancillary activity is not undertaken for its own sake but purely in order to provide supporting services for the principal or secondary activities with which it is associated. Therefore, both the System and ISIC treat ancillary activities as integral parts of the principal or secondary activities with which they are associated. SNA, 5.13                       | It is not treated as a producer unit (i.e. an establishment) but must be allocated to the establishments they support. | Proposed to be treated as establishments.<br><br>Work on ISIC rev.4 has proposed to have an ISIC class of head offices.  |

**Table 1. Current and proposed treatment of units (continued)**

|                                       | <b>Description</b>  | <b>SNA treatment</b>   | <b>Possible changes</b>   |
|---------------------------------------|---|--|---|
| 15. Special purpose vehicles (SPEs)   | SPEs are set up to carry out well-specified activities or series of transactions directly related to the specific purpose for which they are formed. The scope of their activities is broad. They historically originated from the non-financial sector but have spread to the financial and the government sectors. They commonly engage in providing asset management, corporate treasury services, trusts, public-private partnerships, securitization programs, etc. Most SPEs have little or no employment, or physical presence. Most are set up in economies other than that of the parent company, where no financial reports are legally required. Non-governmental units are aimed at avoiding payment of income taxes. | No guideline from the SNA. MFSM200, para. 72 treats most of them as ancillary corporations.  | Proposed to be treated as institutional units. For production account, they may be assigned as establishments with zero output, and value added. In case there is output, output may be measured by cost. |
| 15.1 Special vehicle companies (SPVs) | These corporations are financial entities created to be holders of securitized assets or assets that are removed from the balance sheets of corporations or government units. For example, mortgage lenders may sell a portfolio to an SPV that then repackages the portfolio of assets and sell new investment interests. They receive a fee for its administrative role. MFSM2000, para. 100.   | MSFM2000 treats it as institutional unit if SPV sells new financial interests in the portfolio. If not, it is treated as a trust that passively holds assets.<br><br>ESA95 treats SPVs undertaken by government as separate institutional units. | Work on ISIC rev.4 has proposed separate classifications for trust funds and other financial vehicles, holding companies, holding of securities, and fund management activities.                          |
| 15.2 Conduits                         | These corporations are aimed to raise funds for the parent companies.   | MFSM200, para. 72 treats most of them as ancillary corporations.   |   |
| 15.3 Trust funds/investment funds     | Legal entities organized to pool securities or other assets on behalf of shareholders. The portfolios are customized to achieve specific investment characteristics, such as diversification, risk, rate of return, and price volatility. These entities earn interest, dividends and other property income, but have little or no employment and no revenue from the sale of services. Trust funds owned by individuals if legally incorporated are also included here.  | No clear guideline from the SNA, but implicitly they are treated as part of the household sector or companies that are serviced by them. MFSM200, para. 102.<br><br>ESA95 treats investment funds as separate institutional units                |   |

## Comments

17. Collection of enterprise type data of a financial nature has been dealt with in the IRIS83 in a peripheral manner as a lower priority items.

18. Some countries however, prefer to use the enterprise as the statistical unit at the expense of a more precise characterisation of the geographical dimension and the classification by kind of economic activity. They consider it more important to direct the inquiries to units that can provide not only production related information but also information on balances of assets and liabilities and other non-production related transactions with other units. Also with the enterprise as the statistical unit, its ancillary activities are captured more easily than at the establishment level.

19. Other countries have collected production data on establishments as an integral part of enterprise surveys where essential data on enterprises can only be collected. The latter is done with cross-referenced between establishment and enterprise by identification codes so that ancillary costs can be allocated and the production data by economic activities can be aligned with institutional units.

20. The kind-of-activity characteristic is the principal indicator by which all other characteristics of the statistical unit are arrayed. The classification recommended for this purpose is the ISIC Rev. 3.1[9] which adopted SNA93 recommendation. For horizontally integrated enterprises even at one location, different establishments should be identified for different activities as each activity produces its own goods and services for sale on the market and normally cost accounts are kept on output, intermediate inputs, compensation of employees, employment, stock of capital (SNA, 5.30). For vertically integrated enterprises, different stages of production are carried out in succession by different parts of the same enterprises and only output at the last stage is sold on the market. For the latter case, if record of intra-enterprise deliveries and cost accounts are kept, SNA93 recommends to partition them into separate establishments given cost record is available and given the activities span two or more headings at the first level of breakdown in the ISIC (SNA, para. 5.34).

Question 6: *Should criteria of an establishment be more clearly defined? For instance:*

*(a) When two activities or more are carried on at a single location under a single ownership, all activities generally are grouped together as a single establishment and*

*classified on the basis of its predominant activity unless there exist account on costs on each activity.*

- (b) When the activities classifiable into different ISIC, these activities may be identified as separate establishments only if separate cost account of each activity is available.*
- (c) When activities are carried out at different locations but only one cost account is kept, they can be treated as one establishment unless activities cross into the border of another geographical territory on which statistical agency is required to collect data. In such a case, some simple allocation rule based on employment may be adopted.*
- (d) Should the recommendations by the SNA as described in para. 19 of this paper be adopted only if cost accounts on separate activities are available?*

Question 7: *Given the design of SNA93 as a statistical system that integrates economic activities by ISIC and institutional sectors, should both establishment and enterprise serve as statistical units?*

Question 8: *Given that both establishment and enterprise serve as statistical units, how should questionnaires be designed? How should they be cross-referenced so that common costs paid by the enterprise such as ancillary costs can be allocated to establishments? What indicators to be used for such allocation? What are the best country practices in this area?*

### **3.2 Multi-territory enterprises**

#### Current recommendations

21. There are no guidelines in the existing recommendations for treatment of the multi-territory enterprises as well as enterprises operating in a joint sovereignty zone.

#### Comments

22. Multi-territory enterprises are single enterprises that have substantial operations in two or more territories but for which branches are not identified. An example of this is a corporation (such as an enterprise that operates mobile equipment) that is registered in two or more countries through special legislation by the participating governments and is run as a seamless entity across several economic territories. For such enterprises, the current SNA update recommends the adoption of one of the two alternatives recommended by the BPM5 in paragraph 82 that all of the corporation's transactions may be allocated to the countries of



registry in proportion to the amounts of financial capital that the countries have contributed or in proportion to their shares in the equity of the corporation.

23. The SNA update also discusses some industrial activity that might take place in the territory on which more than one economic territory has joint sovereignty. For such entities it may be split statistically between the territories concerned based on some operational factors.

Question 9: *Should the general recommendation of SNA update be adopted to allocate production data for multi-territory enterprises or enterprise with joint sovereignty?*

### **3.3 Special Purpose Entities**

#### Current recommendations

24. There are no guidelines in the existing recommendations for treatment of the Special purpose entities (SPEs) created in the economy by non-residents in IRIS83 and SNA93, though there are some recommendations in ESA95 and the IMF's Monetary and Financial Statistics Manual (MFSM2000).

#### Comments

25. SPEs or special purpose vehicles are legal structures that have little or no employment, operation or physical presence in the jurisdiction in which they are created. It is set up to facilitate the financing of a group's activity and/or to contribute to cost minimisation by taking advantage of different economic, legal or fiscal regimes. They are typically used as a device to hold assets and liabilities and do not undertake production. As legal devices, SPEs are relatively cheap to create and maintain while offering possible taxation, regulatory burden and confidentiality benefits. Incorporation of SPEs is often associated with offshore financial centres but may also be found in other jurisdiction. In recent decades the cross-border transactions of SPEs have been increasing to substantial levels.

26. This issue was considered as current SNA update and it was recommended that an SPE incorporated in an economic territory other than any of its owners be treated as a separate institutional unit and resident in its country of incorporation.

Question 10: *Should the recommendation of the SNA update be adopted and the SPEs created in the economy by non-residents be covered under the inquiry even if it do not undertake production? This recommendation will affect only data collection on enterprise statistics to get data on financial transactions and on financial balance sheets. In that case, should output be valued at costs?*

### **3.4 Identification of branches**

#### Current recommendations

27. A separate legal entity set up by a business in order to undertake operations in an economy outside his home economy is treated as a separate unit under the IRIS83. There are no current guidelines, however, for the statistical treatment of the situation where a separate entity is not created physically in the outside economy, but the operations of such an entity are substantial.

#### Comments

28. In many cases a business sets up an unincorporated legal entity (physical presence) in order to undertake operations in an economy outside his domestic economy. In such a situation, SNA93 and Balance of Payments Manual, fifth edition (BMP5) have imputed a resident institutional unit to it. SNA93 update has recommended even if in case of no physical presence, as long as the operations of such an entity are substantial in the local economy, a “branch” - notional resident institutional unit of that economy should be imputed for statistical purposes. Substantial operations are represented by costs incurred and income received that are subject to income taxes and possibly availability of a complete and separate set of accounts.

29. The issue was considered by the SNA update and it was recommended that physical presence is not required for a branch to be recognized.

Question 11: *Should the recommendation of the SNA update be adopted to treat the unincorporated entity of non-resident owners (with no physical presence but having substantial operations) as a separate institutional unit?*

### **3.5 Ancillary Units/Activities**

#### Current recommendations

30. Similar to the case of non-industrial services that might be mainly produced for sale by the headquarter office of an enterprise, ancillary activities of many enterprises may be located at the headquarter office or at some locations separate from the establishment locations but are engaged in activities with the intention of producing one or more common type of non-capital goods/services for use within the same enterprise. These activities that occur at identifiable and separate locations are not even identified as units by SNA93 and IRIS83. Examples of ancillary activities are central administrative offices, advertising, warehouses, garages, repair shops or electric power plants that primarily serve their parent establishments. IRIS83 and SNA93 recommend that:

- (a) Ancillary activities should not be seen as delivering goods/services as intermediate inputs to the establishments in the enterprise.
- (b) If the ancillary activity is carried out for the benefit of a single establishment in a multi-establishment enterprise, costs incurred by the ancillary unit should be included as costs to that establishment.
- (c) If the ancillary activity is for the benefit of more than one single establishment in the enterprise, these costs should be allocated to the principal it serves.<sup>2</sup>

31. More specifically, IRIS83 recommends that: “classification of these ancillary units may involve making distinctions according to function and not kind of activity as in ISIC.” (IRIS83, para. 53). “If the function is carried out for the benefit of a single establishment, the activities of the ancillary unit and the resources involved in the activities should be included as an integral part of the activities and resources of the parent establishment. However, where the main activities of the establishment and the supporting ancillary activities are located in different geographical areas..., it will be desirable to gather separate data in respect of the ancillary unit concerning the items to be classified according to these geographical areas. As a result, the number of statistical units in geographical area tabulation may be greater than the number recorded in the summary tabulations.” (IRIS83, para. 54). This implicitly means that IRIS83 treats the ancillary unit as a separate establishment in the region

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- (a) The output of an ancillary activity is not intended for use outside the enterprise (SNA, para. 5.9).
- (b) All inputs consumed by an ancillary activity – materials, labour, consumption of fixed capital, etc. – are treated as inputs into the principal or secondary activity which it supports (SNA, para. 5.13).
- (c) When goods and services produced within the same establishment are fed back as inputs into the production within the same establishment, they are not recorded as part of the intermediate consumption or output of that establishment. On the other hand, deliveries of goods and services between different establishments belonging to the same enterprise are recorded as outputs by the producing establishments and must, therefore, be recorded as intermediate inputs by the receiving establishments (SNA, para. 6.152).

where it is located and add its costs to the predominant ISIC (of the establishment in a different region).

32. For following the same argument, IIRIS83 made the following recommendation for an ancillary unit that supports two or more establishments, that “if the required data can be supplied in respect of this unit, it might be treated as a separate establishment. It should in general be classified in the same category of ISIC as the predominant kind of activity of the establishment it serves.” (IRIS83, para. 55). “Similarly, a large separately located ancillary unit, such as an electricity power plant for which the appropriate data may be gathered, might be treated as a separate establishment though it serves a single establishment only.” (IRIS83, para. 55).

### Comments

33. The recommendation of classifying the ancillary units to the ISIC activity of the predominant establishment in a multi-establishment enterprise is not conducive to depicting the production technology at both the local/regional economy accurately, for example the costs of producing electricity as an ancillary activity would be added on to the predominant establishment it supports or the ancillary warehousing activity in a region that aims at serving an establishment located in another region will be classified by the ISIC of that establishment. With such a treatment a region may be assigned with an activity which actually may not take place in the region. Given that treatment, an activity with identifiable output would be assigned with more inputs and labour than it actually used and it may happen that inputs may turn out to be higher than output at the regional level. Even going further in allocating the costs of an ancillary activity to the activities of the establishments it serves on the basis of some indicators like employment would not affect the production technology at the national economy level, but at the local level, the allocation and imputation destroy the ability to identify the nature of ancillary activities, distorts the input structure of the establishments to which inputs of ancillary units are allocated and may produce local data where inputs could be higher than that of the output.

34. The current treatment does not enable getting information for realistic assessment of the contribution and role of ancillary activities in the economy as they are integrated with the activities they support, For example, it is difficult to know how much output they produce, how many persons are engaged in such activities, how much resources they consume, etc. Besides, this creates a serious disadvantage for certain purposes, such as analysing the

impact of "information technology" on productivity when the processing and communication of information are typical ancillary activities.

35. One way to overcome this difficulty could be to treat all ancillary units as establishments and classifying these with the economic activity status of their own rather than that of the establishments they support. For example, the warehousing and headquarter units supporting a manufacturing unit would be classified under 'storage and warehousing' and 'managerial support service' respectively. Output of such units would be consumed as intermediate consumption by the establishment they serve/support. With this treatment the economic aggregates at the national level can be consistently derived for any economic activity by aggregating the data of the same type at the local/regional level. The issue is discussed more in depth in a separate paper as part of the recommendation to update SNA93.<sup>3</sup>

36. The imputation of intermediate consumption of ancillary units to production establishments (if they are located at the local levels) would allow the capturing of all inputs consumed implicitly or explicitly by them. This information would be helpful for the compilation of regional input-output tables. Besides, this would bring the treatment of in-house ancillary activities closer to that of the contracted out service operations.

37. The treatment of ancillary units as establishments would allow for identifying separately their activities in the economy, which reflects the reality of the economy. This treatment would increase the total output produced by the economy, but it does not really matter, as it would not change the total value added, as obviously the additional output by reckoning the ancillary units as establishments, would eventually be used up as intermediate consumption.

Question 12: *Should ancillary units be treated as separate establishments when these are located at locations separate from establishments they support?*

Question 13: *In the above case, should ancillary units be singled out only when it is located at a separate location and/or keep separate cost accounts?*

Question 14: *What are the best indicators to use in imputing output of ancillary unit to the establishments it serves? Should these indicators be employment or output value?*

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<sup>3</sup> Viet Vu, Treatment of ancillary units in the 1993 SNA: a review, consistency between the national and regional aggregates, <http://unstats.un.org/unsd/nationalaccount/ancunits.htm>

Question 15: *Should data be produced at two levels: before imputation of ancillary output as intermediate consumption and after?*

Question 16: *Should ancillary corporation (corporation set up to provide services mainly to the parent corporation) and holding corporation that do not undertake production (that owns other corporations as subsidiaries) be treated the same way as ancillary units?*

#### **4. Valuation**

38. The valuation of the output of the ancillary unit allocated to the establishment/enterprise it supports may be done using the transfer price comprising the cost to produce the output plus the part of the operating surplus of the main establishment allocable to the ancillary unit.

39. The output of the establishment may be valued at producer prices and the input at purchaser prices.

#### **5. Census value added**

##### Current recommendations

40. The measurement of “census value added” (CVA) has been the primary orientation of the IRIS83. The CVA is a net concept that is derived by deducting the census intermediate consumption (CIC) from the census output (CO).

41. CVA is different from the concept of value added in national accounts (NVA). The reason is that output and intermediate consumption is defined differently by IRIS83 and 1993 SNA. Census output excludes output of non-industrial services produced by an industrial enterprise since it assumes implicitly that non-industrial services are not produced by any establishment, but by the enterprise itself (for example some legal service or computer service that is normally the function of the parent company). Similarly, census intermediate consumption excludes the payment for non-industrial services since it is also implicitly assumed that these services are paid for by the parent enterprise (for example insurance and banking services on loans) and therefore not in the production account of the establishments. The output (NO) and the intermediate consumption (NIC) in the SNA sense can be derived from the CO and CIC by adding the output of non-industrial services produced by the

industrial units and subtracting the purchase of non-industrial services used in the process of production by the industrial units, to estimate the NVA. In short,

$$\text{NO} = \text{CO} + \text{output of non-industrial services}$$
$$\text{NIC} = \text{CIC} + \text{input of non-industrial services}$$
$$\text{NVA} = \text{NO} - \text{NIC} = \text{CVA} + \text{output of non-industrial services} - \text{input of non-industrial services}$$

### Comments

42. We have noted that the census value added is not a concept that is consistent with national accounts, which is the standard for economic statistics. Census value added is normally higher than national accounts value added given the fact that the output of non-industrial services produced by industrial enterprises is normally small. To derive an estimate of value added which is used in national accounts, it is necessary to adjust the output by excluding purchased non-industrial services and including the non-industrial output (receipt) by collecting additional data on non-industrial services as output produced and intermediate inputs used by industrial establishments.

43. Non-industrial services in an industrial production unit, as defined by IRIS83 include quite a wide range of services that relate to non-industrial (i.e. non-manufacturing) activities. Receipts are normally reported in books of the enterprise as 'other revenues' and expenses as 'other costs'.

44. In IRIS83, 'other revenues' accruing on account of providing non-industrial services include receipts on renting or leasing of capital goods and non-residential buildings, on operation of canteens and other food services, storage of goods, warehousing, margins on transactions of second-hand goods, scraps, brokers' commissions, transport services rendered to others, etc.

45. Also in IRIS83, 'other costs' incurred for payment of non-industrial services include payments for renting and leasing of capital goods and non-residential buildings, provisions and supplies for sale in employee facilities, explicit banking service charges, vocational training, patent and license fees, legal and accounting services, advertising, printing costs, newspaper and periodical subscription, postal and telephone charges, costs of representation, meetings, entertainment and travelling, cleaning and waste disposals, etc.

46. IRIS83 considers the collection of data on the cost of non-industrial services at the establishment level somewhat problematic especially in the case of multi-establishment enterprises and stems from the manner in which the expenses are recorded in the enterprise's books of account. In such enterprises, data at the establishment level are available only for certain non-industrial services, such as communication costs and rental payments. Other non-industrial services, such as advertising, legal, accounting and other professional services, are charged at the enterprise level and therefore, are available in the books of account of the enterprise. This may be one of the reasons that IRIS83 has emphasised measurement of census value added as the primary goal of the industrial statistics programme, and data items required for estimating the national accounts value added have been assigned lower priority for collection.

47. In order to estimate national accounts value added, expenses relating to the non-industrial services available at the enterprise level might be allocated back to the concerned individual establishments, either according to the proportion of total enterprise wages and salaries or the output represented by each establishment, or by assigning to each establishment of the multi-establishment enterprise estimated costs for the specific service as reported by the single-establishment enterprises of similar size and in the same type of industry. This requires that data on non-industrial services by establishments be collected and cross-referenced with the data on enterprises that own them. The allocation to establishments can best be done by data collection and processing unit and published for use by national accountants. The concept of value added obtained then is close to national accounts value added but not yet equal.

48. Finally, the derivation of national accounts value added and intermediate consumption requires the intervention of national accountants by adjusting for expenditures on two additional items: financial intermediation services indirectly measured (FISIM) and insurance charges. Data that can be collected at the establishment/enterprise level are interest payable and receivable, insurance premiums incurred and claims due, but not the services on them. The final adjustment to national accounts concepts requires the derivation of these service charges at the national level by national accountants.

*Question 17: Should the measurement of the census value added through industrial statistics programme be made as close as possible to the national accounts concept of value added by allocating costs of non-industrial services paid by enterprises to each establishment? To do this, should data collection on establishment and enterprise be integrated?*



Question 18: *Should a separate establishment be identified for output of non-industrial output of an enterprise, when it is produced by the enterprise directly at the headquarter and not at the establishment level? When it is produced at the establishment level, should it be treated as secondary product instead of being ignored?*

## **6. Priorities of inquiries of varying frequency**

### Current recommendations

49. According to IRIS83, the cycle of inquiries may be infrequent, annual, quarterly and monthly depending upon the purpose. Coverage is generally less comprehensive in more-frequent-than-annual (e.g. monthly and quarterly) enquiries. The information collected under the monthly and the quarterly surveys are more in the nature of leading business indicators. Covering of all small units under the monthly/quarterly surveys is resource demanding even for countries with a highly developed statistical system.

50. Extensive information with complete coverage required to study all aspects of the industrial sector of the economy are generally collected in an annual inquiry. In the existing recommendations the annual inquiry is regarded as the central inquiry of the system, however, an infrequent inquiry with complete coverage is expected to provide detailed information to be used as benchmark data for other inquiries and for those countries that do not maintain up-to-date registers of their business establishments.

51. Emphasis is placed on the need for integrating the inquiries of various frequencies so that the data produced by each inquiry may supplement those produced by the others. In order that the results may clearly supplement each other, the inquiries need to be based on consistent concepts and definitions. To achieve this, special attention must be paid to scope and coverage, the statistical unit used, the classifications used, the reference period and the items of data to be gathered and their definitions.

### Comments

52. IRIS83 does not clearly spell out the role of census, annual inquiry and other more frequently surveys.

Question 19: *Should the cycle of data collection be clearly specified? For example, census for all large enterprises; sampling technique for medium and small incorporated enterprises and household units?*

Question 20: *Should monthly instead of quarterly sample survey be implemented for the compilation of quarterly national accounts?*

Question 21: *Should inquiry of less frequency be recommended for detailed inputs?*

## **E. STRATEGY FOR DATA COLLECTION**

### **1. Full enumeration through census/ or sampling through surveys**

#### Current recommendations

53. The existing international recommendations for industrial statistics have promoted a cycle of establishment censuses (at an interval of 10 years), annual baseline inquiries using cut off points, and sample enquiries when they are considered relevant for the complement of the statistical universe. A survey [11] of the country practices, however, has revealed that only few countries have actually followed this recommendation on the cycle of data collection.

54. The thrust of the international recommendations for industrial statistics rest on the mix of annual inquiries and infrequent full-coverage inquiries supplemented by more-frequent-than-annual inquiries. The annual enquiry is presented as central to the system with infrequent inquiries fulfilling a supportive role to make available the benchmark data. For undertaking any kind of sample inquiries knowledge of the statistical universe is imperative. It therefore, seems more logical to give first priority to the establishment of the complete statistical universe.

55. In the current scenario of rapid technological changes in the global economy, a period of 10 years appears to be much too long for the Economic Census to provide a meaningful knowledge of statistical universe (specially the smaller enterprises whose births/deaths are frequent) for subsequent sample surveys or providing the base-lines estimates.

Question 22: *Should a 5-year cycle for conducting the economic census be recommended?*

Question 23: *Should censuses be done only for the population of incorporated enterprises or only large enterprises and sampling technique be used for others?*

Question 24: *In country where business register for some subset of population is annually updated should censuses on them be done away with and focus should be placed on annual surveys and quarterly surveys in order to reduce cost of data collection?*

## **2. Establishment/maintenance of a Business Register**

### Current recommendations

56. IRIS83 has little to say about business register which is the basis for production censuses and surveys.

### Comments

57. There are different sources for setting up a business register, most of which have some deficiencies. Each source must be examined carefully before being used and care taken to overcome any defects. At the same time, it may be necessary to sacrifice some degree of completeness or accuracy in order to keep the costs of setting up the directory at a reasonable level, but such decision should be made consciously and some attempt made to measure and describe the deficiencies. The following are some of sources for creating a register of business units:

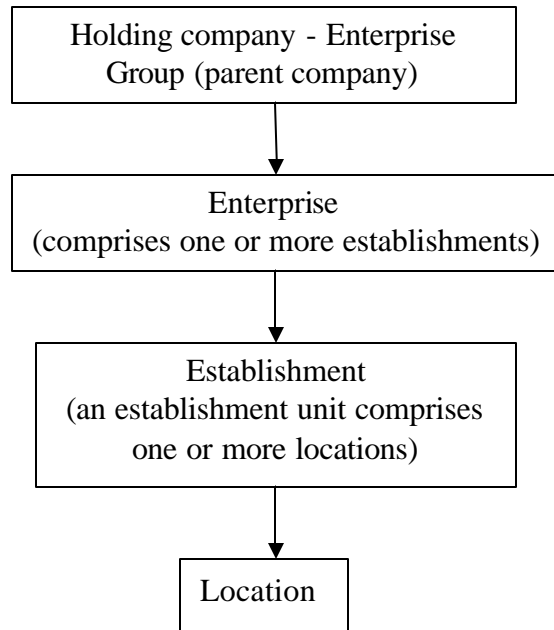
- (a) Economic Census: This is probably the most expensive way to collect information needed for the directory. However, especially when a country is initiating an economic statistics programme, it is undoubtedly the most useful. Trained field enumerators can seek out each physically recognizable place of business and collect the necessary information by direct interview and observation. Aside from high cost, the defects include the fact that non-recognizable places of business will be omitted;
- (b) Government records: Records maintained by the Government for the taxation purposes and for the administration of unemployment insurance, social security or other Government programmes may be helpful in setting up a directory. Such records however, need careful review to determine their completeness, suitability and accuracy; they are not designed primarily to serve economic survey needs. These records may not have indication of size and, thus, would not be usable for the selection of samples or

implementation of a pre-determined size cut off. They may relate enterprise rather than establishments, thus requiring a preliminary survey to collect information needed for each establishment.

(c) Trade association

(d) Other potential sources: These include telephone directories or special listings prepared by telephone companies. Each type has its own special characteristics which must be studied carefully before a decision is made on how to use it.

58. In general, the directory is set up using one record for each establishment and one record for each enterprise with the link identifiable between each establishment and its parent enterprise. For multi-establishment enterprises, this means that there will also be a record for the central office, and each establishment should be cross-referenced to the central office. A separate record for each establishment permits maximum flexibility and the elimination of records for establishments going out of business. The register of establishments serves as the main frame for collecting data on production. The register of enterprises will provide only some basic supplementary data that would allow the allocation of ancillary output to their users within the same enterprise and for updating the names, locations and activities of establishments owned by an enterprise. Thus, proper codes should be assigned to the enterprises and establishments as to establish hierarchical link between them as shown below. The coding of relationship would allow for the allocation of the operating surplus of the main establishment to its supporting ancillary units and the imputation of the outputs of ancillary units as intermediate consumption to consuming establishments.



59. As a minimum, the register of enterprises should include the following information:
- (i) name and physical location of each enterprise
  - (ii) mailing address, which may be different from physical location
  - (iii) name and address of the central office of headquarters of the enterprise and establishments that are part of multi-establishment enterprise
  - (iv) kind of economic activity, description or code
  - (v) legal status: incorporated and unincorporated
  - (vi) ownership status: public-owned (by central, state and local governments), privately- owned, divided into direct foreign investment and others
  - (vii) number of persons employed
  - (viii) volume of sales and value of output
  - (ix) source and date of information

60. Because of the typically large number of small establishments especially in the developing countries, the establishing and maintaining a complete directory would be very difficult and expensive. As a result, some countries establish a specific size cut-off and include in the business register only those establishments over a specific size. Business Register would be a useful instrument in conducting the sample inquiries only if full coverage of the universe can be assured and it is accurately maintained. Proceedings of the International Roundtable on Business Survey Frames illustrate the difficulty of accurately maintaining business registers even in countries with well-developed statistical systems.

Question 25: *Should developing countries develop complete register of all large incorporated enterprises (with a fixed cut-off point in employment)? The rest can be measured by using area sampling technique and household surveys?*

Question 26: *Should the register of all large incorporated enterprises be updated annually with minimum data requested: number of employees, and addresses, ISIC and number of employees of each establishment in the enterprises?*

### **3. Data collection methods**

61. The data collection approach inherent in the existing international recommendations has been anchored on the mix of annual inquiries and infrequent inquiries (with full coverage) supported by more-frequent-than annual inquiries. Availability of a business register has been assumed in this scheme of things as the basis for the system. The large establishments/enterprises are covered through annual inquiries based on such a register.

62. Under the existing recommendations small establishments are recommended to be covered through household surveys. The main disadvantage of the use of household surveys for this purpose, however, is that the sample for such surveys is not designed to provide a representative coverage of economic activities, but only of the distribution of households. It is likely that in many cases the two distributions are different, as economic activities tend to be concentrated in commercial and industrial zones and are not spread across areas in the same way as the population.

63. In developing countries the number of small establishments/enterprises is rather large and these are often unincorporated and need to be captured more extensively through sampling design weighted according to the concentration of economic activities rather than population size. A methodology for a survey programme (namely, Fully Integrated Rational Survey Technique – FIRST) that efficiently captures information from the entire size-range of enterprises operating within an industry has been described in [11].

64. In the FIRST, the largest establishments/enterprises are covered on the basis of a business register, preferably by mailed questionnaire with follow-up visits where required. Medium and small establishments are covered through area sampling techniques similar to those of household surveys. At the initial (listing) stage, each establishment in the selected

areas is visited to determine the kind of economic activity taking place there which is actually enumerated in the second stage.

Question 27: *Should area sampling technique and household survey be used for other fixed location enterprises?*

Question 28: *Should the FIRST methodology be recommended as a strategy? Should the International Recommendation review the characteristics (e.g. incorporation, registration, size of employment, location separate from household etc.) of units that need to be covered by establishment/enterprise survey to delineate what should be covered by establishment/enterprise survey and what should be covered by the household survey]*

## **F. ITEMS OF DATA TO BE COLLECTED AND STATISTICS TO BE PUBLISHED**

### **1. Data to be collected**

65. The IRIS83 recommends ‘census value added’ to be the primary and minimum goal of all countries. Accordingly, recommendations made by IRIS83 for the items of data to be collected in a complete internationally comparable industrial statistics programme had assigned differential priorities for their collection. Data items which have been assigned priority 1 include identification particulars of the unit, type of economic organisation, employment (number), items of information required to estimate census value added and items relating to gross fixed capital formation. Lower priority is given to other items necessary for deriving “national accounts valued added”.

### Comments

66. There are important changes and analytical demand that make the IRIS83 obsolete. These include changes in the classifications of institutional sectors in SNA93 SNA, classifications of economic activities in ISIC and classifications of employment by the International Labour Organisation to meet the needs of the changing economy, change in the focus on regional development that requires data on regional economy and regional GDP and finally the appearance of the new economy that requires data information on research and development, software and database development, e-commerce, environmental protection, etc..

67. The proliferation of data demand and supply has made the need for a framework that consistently integrates or relates data using the same concepts. SNA93 and its forthcoming revised version is designed to serve this purpose, it is therefore important that high priority should be given to the collection of information that are necessary for the compilation of value added according to the concept in national accounting. It is also important to identify other indicators that are important for other purposes than national accounts such as capacity of machines, production capacity utilization ratios, data on industrial pollution or costs of pollution control or abatement, etc.

68. The table 2 below contains a broad outline of the new recommendations that will be further elaborated in another separate document. In this table, all costs relating to production are collected, with recommendation to identify:

- a) holding companies, enterprises, ancillary units and productive units by regions and their relationship;
- b) shipments to and from other productive establishments within the same enterprise;
- c) Materials bought and supplied to sub-contractors;
- d) Costs of own-account fixed assets and major repairs to account for secondary output;
- e) Methods of inventory recording in order to obtain proper of value of output and intermediate consumption which are close to the national accounts concepts. The national account values of intermediate consumption will be finally derived after adjustment for the cost of financial intermediation and insurance services;
- f) “of which” items on employment and hours worked and payment for (i) database and software development, (ii) research and development, and e-commerce sales, shipments etc., and cost for environmental protection. The employment in the field of database and software development has been included to be used as an indicator for the estimation of capital formation. The e-commerce sales, shipments, receipts are online orders accepted for manufactured products from customers; including shipments to other domestic plants of the enterprise for further manufacture assembly, or fabrication where price and terms of sales are negotiated over an internet, extranet, electronic mail or other online system. Payments may or may not be made online.



- g) Other non-national accounts data that are important for the analysis of industrial performance such as capacity utilization ratios, pollution control, research and development, etc.
-

**Table 2. Data items that should be collected**

Each unit is assigned identification code: The code should specify:

- a) Physical region where the unit is located
- b) Holding company code: if the company is a parent holding company that has member enterprises that are legally incorporated
- c) Enterprise code: code should identify if it is a one-establishment enterprise or multi-establishment enterprises and main economic activity (ISIC). One-establishment enterprise is treated similar to an establishment in production data collection.
- d) Establishment code: code should identify type of activity (ancillary or productive) and by kind of economic activity (ISIC).

**I. Information on organization of statistical units by a questionnaire on organization (business register)**

**1 Enterprise information**

|     |  |  |
|-----|--|--|
| 1.1 | Identification code  | [region code].[holding company code].[enterprise code].[main ISIC activity]  |
| 1.2 | Location   | Physical location, mailing address, contact person   |
| 1.3 | Types of organization  | Holding company, multi-establishment enterprise, single-establishment enterprise   |
| 1.4 | Types of legal organization  | Unincorporated, co-operative, non-profit institution, incorporated companies (or limited liability)  |
| 1.5 | Type of ownership  | Government-owned or privately owned, national or foreign controlled  |
| 1.6 | Information on holding companies                                       | If the unit is a holding company: Names, location of each enterprise owned by holding company. Identification code is given to each member enterprise.   |
| 1.7 | Information on establishments owned by multi-establishment enterprises | If the unit is an incorporated enterprise: list of establishments with location, address, contact person, kind of activity, type of activity (headquarter or other types of ancillary units, production units), employment, and status of operation (in operation, cease to exist, seasonally inactive). |

**II. Information on establishment by separate questionnaire (a separate and more simplified questionnaire may be necessary for unincorporated one establishment enterprise)**

**2. Sales, shipments, receipts or revenues:** Value should exclude all taxes assessed on products

|        |  |   |
|--------|--|---|
| 2.1    | Identification code  | [region].[holding company code].[enterprise code].[type of establishment].[type of economic activity]   |
| 2.2    | Information on establishment   | Physical location, contact person, name and location of enterprise that owns it, kind of activity, type of activity (headquarter or other types of ancillary units, production units), status of operation (in operation, cease to exist, seasonally inactive). |
| 2.2    | Sales, shipments, receipts or revenues not including property income | Of which exported to customers and affiliated foreign branches  |
| 2.2(i) |  | Of which e-commerce   |
| 2.2.1  | Sales, shipments, receipts or revenues to other enterprises          |   |
| 2.2.2  | Shipments to other domestic establishment of the same company        | Shipment to other establishment for further assembly and fabrication. Estimated on the basis of sales to other enterprises or if no sale to other then by cost of production  |
| 2.2.3  | Sales of goods without further processing                            |   |
| 2.3    | Major products produced  | Vary depending on type of activity  |

**3. Payroll and employment**

|     |                           |   |
|-----|---------------------------|---|
| 3.1 | Employment                | Number of employees broken down by production workers and others, male and female. For unincorporated enterprises, employment broken down by formal and informal employment (informal employment is defined by the ILO as employees/working proprietors not covered by any form of social production).<br>Of which employees devoted to research and development, database and software development |
| 3.2 | Hours worked              | Broken down similarly to employment   |
| 3.3 | Payroll before deductions | Broken down by wages and salaries, social contribution by employers (social security, pension, insurance) and fringe benefits   |

#### 4. Expenses on goods and services: cost should exclude taxes deductible

|       |  |   |
|-------|--|---|
| 4.1   | Cost of materials, parts, and supplies except gas, fuels and electricity | Broken down by CPC (only for detailed survey)   |
| 4.1.1 |  | Of which purchased  |
| 4.1.2 |  | Of which delivered from other establishments of the same company  |
| 4.1.3 |  | Of which, for work contracted out to others   |
| 4.2.  | Cost of goods bought and sold as such without further processing         |   |
| 4.3.  | Cost of services except rental   | Broken down by payment paid for contract work, purchased repair and maintenance, communication services, legal services, accounting and bookkeeping services, advertising and promotional services, expensed computer services, environmental protection services (refuse removal etc.), managing and consulting services, etc. |
| 4.4.  | Rental payment   | For buildings, other structure, machinery and equipment, etc.   |
| 4.5   | Other selected costs   | Electricity purchased, electricity generated of which sold  |
| 4.5.1 |  |   |
| 4.6   |  | Fuels and gas purchased   |
| 4.7   |  | Cost of own-account fixed assets and major construction   |
| 4.8   |  | Non-life insurance premiums on establishment property paid directly by establishment or if by enterprise, then estimated cost   |

#### 5. Inventories

|     |                                     |  |
|-----|-------------------------------------|--|
| 5.1 | Finished goods                      | Method of measuring inventory (LIFO, FIFO, average cost, standard cost, perpetual inventory) |
| 5.2 | Work-in-process                     | As above   |
| 5.3 | Materials, supplies and fuels, etc. | As above   |

#### 6. Assets, capital expenditures, retirements and depreciation

|       |  |  |
|-------|--|--|
| 6.1   | Gross value of depreciable fixed assets at the beginning of the period     | At acquisition cost, broken down into buildings, other structures, computers and peripheral data processing equipment, machinery and other equipment, transport equipment<br>Of which under lease-purchase (financial leasing) |
| 6.2   | Capital expenditure of new and fixed assets                                | As above   |
| 6.2.1 |  | Of which cost of own-account fixed assets and major construction<br>As above   |
| 6.3   | Gross value of depreciable fixed assets sold, retired, scrapped, destroyed | As above   |
| 6.4   | Depreciation   | As above   |
| 6.5   | Gross value of depreciable fixed assets at the end of the period           | As above   |

**7. Census output and value added:** derived from tables above.

|     |                                 |   |
|-----|---------------------------------|---|
| 7.1 | Output at basic prices          | $2.2.1 + 2.2.2 + (2.2.3 - 4.2) + 4.7 + \text{change in } (5.1+5.2)$ |
| 7.2 | Census intermediate consumption | $4.1 + 4.3 + 4.4 + (4.5 - 4.51) + 4.6 - \text{change in } 5.3$      |
| 7.3 | Census value added              | $7.1 - 7.2$   |
| 7.4 | Gross fixed capital formation   | $6.2 - 6.3$   |

Question 29: *Should items above be modified to take into account the classifications of institutional sectors in SNA93 where corporations are distinguished from incorporated household enterprises and non-profit institutions are distinguished into serving government, corporations and households?*

Question 30: *Should the recent classification of employment be adopted to replace the current one used by IRIS83?*

Question 31: *Should all expenditure on services be included as expenditures and all revenues of services be included as outputs?*

Question 32: *Should outputs (revenues) be basic values, i.e. excluding taxes on products produced by enterprises that they collected from purchasers on behalf of the government? (Taxes and subsidies on products can be collected as additional data items)*

Question 33: *(a) Should all data items mentioned above receive equal priority?  
(b) Should some more data items be added? Should some data items be deleted from the list?*

## **2. Enterprise statistics to be collected**

### Current recommendations

69. International recommendations for the enterprise statistics have not been formulated.

### Comments

70. In case of multi-establishment enterprises, information on certain items at the enterprise level is necessary for example, to allocate the cost (using the transfer price) of the ancillary activities to the enterprise it supports.

71. There are certain items for example, property income receipts and payments, insurance charges etc., on which information can be collected only at the enterprise level. Availability of enterprise statistics would help integrate the establishment-enterprise activity and extend the scope of the industrial statistics programme to complement compilation of sequence of accounts relating to the industrial segment of the economy within the framework of SNA93.

72. It is proposed that information at the enterprise level on the following items be collected. Items on Part A of the Table 3 would be helpful in developing a Business Register.

**Table 3: Additional data items to be collected from the enterprise**

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**Part-A**

- 1.1 Sales, revenues net of discounts and returns
- 1.2 Less Cost of goods sold
- 1.3 Less Operating expenses
- 1.4 Equal Operating income
- 1.5 Property income receipts
  - 1.5.1 Rent (land rent)
  - 1.5.2 Interest
  - 1.5.3 Dividends
- 1.6 Property income payments
  - 1.6.1 Rent (land rent)
  - 1.6.2 Interest
  - 1.6.3 Dividends
- 1.7 Other payments
  - 1.7.1 Insurance premiums on enterprise property
- 1.8 Current taxes on net earnings

## Part B. Balance sheets

### 2. Non-financial assets

| Type of non-financial assets          | Opening balance sheet | Changes in balance sheets                             |                             |                              | Closing balance sheet |
|---------------------------------------|-----------------------|---|-----------------------------|------------------------------|-----------------------|
|                                       |                       | Gross capital formation                               |                             | Consumption of fixed capital |                       |
|                                       |                       | Acquisition less disposal, cost of major improvements | Cost of ownership transfers |                              |                       |
| <b>Produced fixed tangible assets</b> |                       |   |                             |                              |                       |
| Buildings                             |                       |   |                             |                              |                       |
| Machinery and equipment               |                       |   |                             |                              |                       |
| Computers                             |                       |   |                             |                              |                       |
| Others                                |                       |   |                             |                              |                       |
| <b>Intangible fixed assets</b>        |                       |   |                             |                              |                       |
| Mineral exploration                   |                       |   |                             |                              |                       |
| Computer software                     |                       |   |                             |                              |                       |
| Others                                |                       |   |                             |                              |                       |
| <b>Inventories</b>                    |                       |   |                             |                              |                       |
| Materials and supplies                |                       |   |                             |                              |                       |
| Work in progress                      |                       |   |                             |                              |                       |
| Goods for resale                      |                       |   |                             |                              |                       |
| <b>Valuables</b>                      |                       |   |                             |                              |                       |
| <b>Non-produced assets</b>            |                       | xxxxxxxxxxx   |                             | xxxxxxx                      |                       |
| Land                                  |                       | xxxxxxxxxxx   |                             | xxxxxxx                      |                       |
| Subsoil assets                        |                       | xxxxxxxxxxx   |                             | xxxxxxx                      |                       |
| Others                                |                       | xxxxxxxxxxx   |                             | xxxxxxx                      |                       |
| <b>Intangible non-produced assets</b> |                       | xxxxxxxxxxx   |                             | xxxxxxx                      |                       |

### 3. Financial assets

| Type of financial assets       | Opening balance sheet | Closing balance sheet | Change |
|--------------------------------|-----------------------|-----------------------|--------|
| <b>Current assets</b>          |                       |                       |        |
| Cash and short term securities |                       |                       |        |
| Receivables                    |                       |                       |        |
| Prepaid expenses               |                       |                       |        |
| Others                         |                       |                       |        |
| <b>Long term assets</b>        |                       |                       |        |
| Investments                    |                       |                       |        |
| Bonds                          |                       |                       |        |
| Stocks (equity)                |                       |                       |        |

### 4. Financial liabilities

| Type of financial liabilities                                   | Opening balance sheet | Closing balance sheet | Change |
|---|-----------------------|-----------------------|--------|
| <b>Current liabilities</b>                                      |                       |                       |        |
| Notes payable   |                       |                       |        |
| Accounts payable  |                       |                       |        |
| Unearned income   |                       |                       |        |
| Current portion of long terms and capitalised lease obligations |                       |                       |        |
| Other accrued liabilities                                       |                       |                       |        |
| <b>Long term liabilities and other items</b>                    |                       |                       |        |
| Long term debt  |                       |                       |        |
| Loans   |                       |                       |        |

|                                     |  |  |  |
|-------------------------------------|--|--|--|
| Bonds                               |  |  |  |
| Capitalised lease obligations       |  |  |  |
| Employees compensation and benefits |  |  |  |
| Deferred taxes on income            |  |  |  |
| <b>Shareholder's equity</b>         |  |  |  |
|                                     |  |  |  |

*Question 34: Should the scope of the industrial statistics programme be extended to include to collect enterprise statistics so as to facilitate compilation of sequence of accounts of this segment of the economy within the framework of SNA93?*



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