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2004 QUESTIONNAIRE FOR THE REVISION OF THE CENTRAL PRODUCT CLASSIFICATION

Invited paper submitted by United Nations Statistics Division

I. INTRODUCTION

- 1. The revision process for the International Standard Industrial Classification of All Economic Activities (ISIC) and the Central Product Classification (CPC), both with a target date of 2007, is being conducted as a multi-stage process, in which subsequent rounds of discussion focus on general and then more detailed aspects of the revision process.
- 2. The first two sets of questions relating to the CPC have been circulated in 2001 and 2003. As a result of these discussions, agreed recommendations on the general scope and structure of the future CPC have emerged. These recommendations have been approved by the United Nations Statistical Commission in 2004.
- 3. Based on these recommendations, the present questionnaire reflects issues that have emerged in the discussions related to the CPC revision, either in the previous questionnaires or in other forums.

- 4. This questionnaire document and other relevant information is posted on the Classifications Website of the United Nations Statistics Division at http://unstats.un.org/unsd/cr/cpc-2.asp
- 5. Countries are encouraged to state their position on these questions and add any other remarks they deem useful in the revision process. In this sense, this list is not intended to be exhaustive, but should cover the major problems that need to be addressed and agreed to, to arrive at a classification that can universally be accepted as international reference product classification.
- 6. Replies to this questionnaire should be sent by **10 October 2004**, so that they can be considered by the Technical Subgroup of the Expert Group on International Economic and Social Classifications at its next meeting. The replies should be sent preferably by e-mail to CHL@UN.ORG. If this is not possible, replies can also be sent by mail to: United Nations Statistics Division, Attn: Statistical Classifications Section, 2 UN Plaza, New York, NY 10044, USA.

II. SCOPE OF THE CPC

- 7. The previously circulated concepts paper has raised the question of defining (or redefining) the scope of the CPC. The discussion has taken into account the intended purpose of the CPC and its relationship to other economic classifications.
- 8. There is strong agreement that the scope of the CPC should cover the output of economic activities, i.e. goods and services. This includes unintended outputs, which will remain included in the CPC. Maintaining the capability of the CPC to measure inputs, not only outputs, of production processes speak for the inclusion of those products.
- 9. Assets as such will not be in the scope of the CPC. However, goods that turn into produced assets will still be part of the CPC, as products at the time of their creation. There is a need to discuss the treatment of originals in this context, as this may require actual additions to the current CPC scope (see section 9 of this document). Assets will continue to be classified in the SNA classification of assets, which could be extended to a more detailed asset classification supplementing the CPC.

III. USES OF THE CPC

- 10. Discussions on future improvements to the CPC, including level of detail, areas of preference, criteria for defining and grouping of products, should be based on needs that arise out of the use of the CPC in statistical data collection and analysis.
- 11. For any work on the CPC, related to the topics already raised in this questionnaire and those that may arise in the future, more background information on the application of the CPC in countries, its uses, advantages and shortcomings is necessary.

- 12. **Question:** Is the CPC used in your country? (This includes use of the Classification of Products by Activity (CPA), as the detail is comparable.) If yes, for what particular applications is the CPC used?
- 13. **Question:** Have you experienced problems in applying the CPC, either in existing statistical programmes in explorative work? If yes, please describe the problems you have encountered. Note: Please be very descriptive; use examples if necessary. (General comments, such as "The CPC is not adequate." are not sufficient.)
- 14. **Question:** Do you have any specific recommendations that could improve the use of the CPC?

IV. MAIN STRUCTURE OF THE CPC

- 15. The aggregation structure of the revised CPC has been the most controversial issue in previous discussions. A large number of countries prefer a strict industry-of-origin approach to the current CPC structure. However, the majority of these countries will continue to use the CPA, i.e. changes in the CPC will not affect the acceptance of the CPC in those countries. However, the demand for such a structure has been recognized and an alternative structure for the CPC, based on the industry-of-origin will be prepared, taking into account existing CPC-ISIC links.
- 16. A demand-based structure, which could be based on existing classifications of expenditure (e.g. Classification of Individual Consumption According to Purpose (COICOP)) or on work carried out for North American Product Classification System (NAPCS), is also of considerable interest and use. However, work on such a new structure cannot be completed by 2007 in a reasonable fashion
- 17. It is therefore recommended to maintain that status quo regarding the aggregation structure for the CPC, and provide an alternate structure reflecting the industry-of-origin approach. The remaining proposals for changes to the CPC are based on these recommendations, i.e. structural changes may be applied at lower levels in the CPC, if necessary, but there will be no restructuring of major categories.
- 18. This approach has been approved by the Statistical Commission.

V. LINKS TO OTHER CLASSIFICATIONS

19. While the main structure of the CPC will remain unchanged, some changes at lower levels are possible to increase the comparability of the CPC to other classifications. Such links to other classifications have always been requested by users and would enhance the usefulness of the CPC.

- 20. The Balance of Payments manual is currently being revised, with a target date of 2008. This includes a review of the BOP classification and the Extended Balance of Payments Services Classification (EBOPS). Attempts will be made to provide clean links between the CPC and the BOP classifications, where possible, at an intermediate level. This could include the introduction of additional detail or minor structural changes to accommodate this.
- 21. *Question:* Do you agree with this approach regarding the link to BOP and EBOPS?
- 22. The CPC goods part will remain based on the Harmonized System (HS) (see for exceptions below). The CPC structure will, as in the past, not mirror the HS structure. The revision of the Standard International Trade Classification (SITC) will be taken into account as well, assuring as far as possible that CPC subclasses can be expressed in terms of complete SITC headings.
- 23. **Question:** Do you agree with this approach regarding the link to HS and SITC?
- 24. The Classification of Individual Consumption According to Purpose (COICOP) has strong ties to the CPC and categories in COICOP can be defined in terms of CPC. However, there are limitations to this link, due to the fact that some products can also be used for purposes that are not covered by COICOP. In other cases, the link between CPC and COICOP could be improved by introducing additional detail in CPC, reflecting COICOP concepts.
- 25. **Question:** Do you support the introduction of additional detail in the CPC to generate unique links to COICOP?
- 26. The link to the International Standard Industrial Classification of All Economic Activities (ISIC) has the highest priority among users of the classification. While the structure of the CPC will not be rearranged to mirror the ISIC structure, i.e. there will be no industry-of-origin structure in the CPC (see above), efforts will be undertaken to define CPC classes in a way that thy uniquely correspond to a single activity in ISIC. This may require the introduction of additional detail in some cases.
- 27. **Question:** Do you agree with this approach regarding the ISIC link?
- 28. **Question:** If a unique ISIC link requires splitting of CPC subclasses below the HS level, which of the following should have preference: a) maintain the CPC-HS link and create a split link to ISIC or b) define products that link to single ISIC classes, but can no longer be defined in terms of HS?
- 29. Divisions 86 and 88 of the CPC Ver.1.1 cover services incidental to agriculture, forestry, fishing and mining, as well as manufacturing services on inputs owned by others. These are currently defined in rather aggregated terms, mostly allowing links only at the division level of ISIC.
- 30. **Question:** Should the detail in CPC divisions 86 and 88 be increased, so that each subclass in these divisions can uniquely be linked to an ISIC class?

- 31. Divisions 61 and 62 of the CPC cover wholesale and retail sale services. The groups in these divisions reflect activity distinctions, based on ISIC, while additional detail reflects the actual products (goods) being sold. This matrix approach results in (theoretically) 118 subclasses for wholesale and 295 subclasses for retail.
- 32. **Question:** Is the current distinction of wholesale and retail sale, based on mode of sale as defined in ISIC, useful? Should this distinction be limited to ISIC only, while CPC only provides detail for "wholesale of ..." and "retail sale of ...", essentially limiting the number of wholesale and retail categories to 59?
- 33. The comments and questions above are based on classifications that already have an established correspondence to the CPC.
- 34. **Question:** Are there other classifications, whose link to the CPC should be considered in the CPC revision process?

VI. DETAIL OF THE CPC

- 35. A review of the detail of the CPC will be undertaken, taking into account the updated versions of the Harmonized System and the Balance of Payments Classifications. FAO will play an important role in further developing the part related to agricultural products.
- 36. The detail of the CPC goods part will remain based on the HS. There may be some exceptions, where more detail is necessary than that which can be provided in the HS. This relates to cases where domestic production is significant, but the products are not internationally traded. Potential areas include agricultural products and waste products.
- 37. A review of the detail of the goods part will be undertaken when the list of changes to the HS for 2007 is final. A list of proposed changes to the HS is available as a reference document on the website.
- 38. **Question:** Do you agree with this approach? Do you have specific proposals for changes to the goods part of the CPC, e.g. for detail for waste products?
- 39. It has been recommended that special attention should be paid to improving the detail of the services part of the CPC for instance by incorporating price-determining characteristics. The capability of the CPC to act as a guiding tool for the development of detailed product lists needs to be increased. Changes to this effect could result in an extensively increased level of detail of the CPC.
- 40. The detail in the services part will undergo a continued review using inputs from the development process of the North American Product Classification System (NAPCS) and other forums, such as the Voorburg Group. It has been recommended that special attention should be paid to improving the detail of the services part of the CPC so that price index programs can develop appropriate price determining characteristics for the entries in the CPC.

Criteria for the detail review of the CPC will also include index lists of service products for detailed data collection.

- 41. Frequent requests for additional detail in the CPC seem to indicate that there is more than a need for identifying individual products at the current level. Depending on the application of the CPC, a much greater level of detail may be necessary, such as an additional 6th digit. If this is indeed desired, the use of such detailed categories for other form of statistics, as well as proper criteria for additional breakdown need to be researched.
- 42. **Question:** Is there a need for a new level of detail throughout the classification? Do you think that the CPC should have extended detail, requiring a 6-digit classification? Is there a need to develop a separate detailed classification or product list, similar to CPA-PRODCOM?
- 43. The review will take into account proposals received (see below) as well as a general review of products related to activities that are scheduled to undergo changes during the ISIC revision. The revision of ISIC is focusing on services rather than manufacturing. However, there are some areas in manufacturing that will require the CPC to add product details that may conflict with the HS. This approach would reflect a slight loosening of the requirement that a CPC product be linked to one and only one class in ISIC (see question above).
- 44. The following is a list of some of the structure changes proposed for ISIC Rev. 4 that will require review and possible modification of current product details in the CPC. This includes the following areas.
- 45. Relating to section A "Agriculture, Forestry and Fishing", products in the CPC need to be reviewed for seed growing, seed processing (in division 86) and to reflect the split between annual and perennial crops in the revised structure for ISIC Rev. 4.
- 46. For manufactured products, existing product detail needs to be reviewed for newly created ISIC classes, such as for prepared meals and perishable prepared foods, costume jewellery, manufacturing of signs etc. Existing products covering repair of machinery and equipment will need to be reviewed to match the newly created ISIC classes for repair activities.
- 47. In the services area, existing products, details, and groupings will need to be reviewed for new ISIC sections, such as "Water, sewerage, waste treatment, and waste management" (E), "Professional, scientific, and technical services" (N), "Administrative and support services" (O) and "Information and communication" (K), which is actually made up of a combination of services and goods.
- 48. Products will also need to be reviewed or developed for new ISIC classes, such as reinsurance (6020), rental of automobiles (6311), biotechnology research and development (6711), general cleaning of building interiors (7421), other specialized cleaning services (7429), collection bureaus and credit reporting activities (7531), educational support services (7650), healthcare and social assistance services (77*,78*) and sports (831*).

- 49. **Question:** Are there other areas of the draft ISIC Rev.4 that should be considered for new products in the CPC?
- 50. **Question:** Do you have proposals for individual products or product groupings arising out of the above areas of concern or other areas that you propose? Please be as specific as possible, including definitions.
- 51. Some individual proposals that already may affect areas listed above are shown in section 9 of this document.

VII. TREATMENT OF BUNDLED PRODUCTS

- 52. The application of the CPC in different areas has raised the problem of classifying the products that are delivered in bundles, such as turnkey projects, mixed mode transport, computer hardware and software consultancy services, etc.
- 53. The treatment so far has been that the products delivered in a bundle should be classified to the category with the largest value among the products of the bundle, that is, the category that approximates better the nature of the products of the bundle. For example a turnkey project would be classified in the appropriate construction subclass. If more than one type of construction is involved in the project, it will be classified to the subclass that accounts for the major value.
- 54. However there are cases when a meaningful separation of the products of the bundle for the purpose of classifying the bundle cannot be done. Few exceptions have been created in this process, for instance a subclass for mixed mode transportation services.
- 55. In such cases the question arises whether individual categories for such bundles should be created in the classification.
- 56. *Question:* Should the current treatment be maintained?
- 57. **Question:** Should specific categories on bundled products be reflected in CPC structure? If yes, which ones and how many? At which level and in which place in the structure should these built-in categories for bundled products be created?
- 58. **Question:** Should a default treatment be maintained for other cases of bundled products that may arise? What should that be?

VIII. ALTERNATE AGGREGATIONS

59. While alternate aggregations have been used in ISIC in specific areas and for specific uses, so far they have not been used in connection with the CPC. However, it seems likely that such aggregations could support different views and needs for product groupings in

statistical analysis. A standardization of such aggregations would enhance comparability of statistics generated.

- 60. Among the prime candidates for an alternate aggregation would be an aggregation for ICT products, including ICT goods and ICT services. The different nature of these products does not allow for a natural grouping of the various components under one heading "ICT products" in the CPC, but an alternate aggregation could satisfy this need.
- 61. Grouping the entirety of products (goods and services) related to the treatment of software could be another, albeit much smaller, example.
- 62. **Question:** Do you agree to introduce the alternate aggregations as a supplementary tool to the CPC?
- 63. **Question:** Are there any other areas where an alternate aggregation might be useful? If yes, please specify.

IX. SPECIFIC AREAS FOR FURTHER DEVELOPMENT

- 64. In a number of specific subject areas, proposals for additional detail or structural alignments within the CPC have been received over the past years or have been announced for this revision process. Some areas are mentioned below for illustration and to solicit comments on these proposals. These are generally areas being addressed by particular international agencies.
- 65. Background documents are posted on the UN Classifications Website at http://unstats.un.org/unsd/cr/cpc-2.asp
- 66. Please note that this list is not complete and not final!
- a) ICT services
- 67. The Working Party on Indicators of the Information Society (WPIIS) has made significant contributions in recent years to the development of standards in the domain of information society statistics. The group's first contribution was the definition of the Information and Communication Technology sector (ICT sector) based on ISIC Rev. 3, which has been included as an alternate aggregation in the ISIC Rev.3.1 manual.
- 68. This and other standards were developed by making the best possible use of existing international classifications or the best possible use of recent developments by NSIs. This strategy was chosen to accelerate the process of generating internationally comparable statistics.
- 69. This proposal takes a similar approach in the development of a list for ICT service products. The strategy consists of proposing updates to the CPC in selected areas and in

identifying ICT service products within the updated CPC on the basis of the guidelines developed by WPIIS.

- 70. The proposed update of the CPC is based on the North American Product Classification (NAPCS). That system was developed with input from industry insiders and particular attention was given to services originating from the information sector, as defined in the North American Industry Classification System (NAICS). Most producers of core ICT services are classified within that sector.
- 71. The concept underlying the list of ICT industries is used to develop the list of ICT services. This is reasonable since it is based on characteristics of products rather than on characteristics of industries. "For *manufacturing industries*, the products of a candidate industry must be intended to fulfil the function of information processing and communication, including transmission and display; or use electronic processing to detect, measure and/or record physical phenomena, or to control a physical process. Components primarily intended for use in such products are also included. For *service industries*, the products of a candidate industry must be intended to enable the function of information processing and communication by electronic means."
- 72. The concept does not restrict the list of ICT services to those primarily produced by ICT industries, nor does it imply that all primary products of ICT industries should be included in the list of ICT products. However, in this case it appears to largely be the case. This paper does not propose a discussion of the principles underlying the definition of ICT services. Rather it suggests a pragmatic approach based on the following assumptions:
- The primary outputs of ICT service industries are, for the most part, ICT services;
- The production of ICT services as primary outputs by non-ICT industries is not material.
- 73. A recent paper detailing this proposal is shown on the classifications website.
- 74. *Question:* Do you agree with the proposal outlined in the document?
- b) Health services
- 75. Dynamic growth, structural changes and increasing complexity in the health care sector of economies worldwide warrant changes in the structure of the product classification to adequately reflect current economic realities.
- 76. The OECD has now published A System of Health Accounts that proposes an International classification for Health Accounts (SHA-ICHA) which contains three components: functions of health care, industries of health care providers and sources of finance for health accounts. The OECD is suggesting that in the elaboration of the revised CPC, account be taken of the functional classification of the ICHA, (ICHA-HC). In the services area, the broad structure of this classification includes: services of curative care, services of rehabilitative care, services of long-term nursing care, ancillary services to health

care, prevention and public health services and health administration and health insurance. The goods area includes categories for medical goods dispensed to outpatients. The proposal is that this broad structure and the details contained therein would comprise a superior representation of the health sector in a revised CPC.

- 77. **Question:** Do you agree with this proposal?
- c) Tourism related services
- 78. The Recommended Methodological Framework of the Tourism Satellite Account (TSA-RMF) has now integrated the economic measurement and analysis of Tourism into the System of National Accounts (SNA93) and in particular into the Production Accounts of the SNA. The recommended classifications of activities and products for SNA 93 are ISIC and the CPC. The TSA framework focuses attention on the products purchased by "visitors" and the activities that produce them and describes them as Tourism characteristic products and activities and Tourism specific products and activities. For purposes of analysis, these products and activities need to be situated within the context of overall domestic production, exports and imports in the economy, for which it is necessary that they too be defined in terms of the same international standard classifications namely CPC and ISIC.
- 79. With respect to activities, proposals for the inclusion of certain activities of particular relevance to Tourism in the revision of ISIC were made by the World Tourism Organisation.
- 80. With respect to products, the information posted on the website provides the rationale for the concepts and displays the lists of Tourism Specific Products and Tourism Characteristic Products provided in TSA-RMF. For the revision, these lists will be reviewed and perhaps expanded by the World Tourism Organisation and specific proposals will be made for the identification of Tourism specific products in the revised CPC. Proposals will be made for the separation of some important Tourism characteristic service products in the CPC. In the case of others, the CPC categories in which tourism specific products can be found will be indicated.
- 81. The areas of interest include, accommodation and real estate services; food and beverage-serving services; passenger transport services, including rental of automobiles and recreational vehicles; travel agency, tour operator and other reservation services, tourist promotion and tour guide services; cultural, sporting and recreational services and miscellaneous tourism services.
- 82. **Question:** Do you have any comments and/or proposals with respect to the TSA-RMF Lists of Tourism Characteristic Products, Tourism Specific Products, and/or revisions to the CPC, to better reflect the needs of Tourism analysis?
- d) Agricultural products
- 83. The Food and Agriculture Organization of the United Nations (FAO) has launched a project, FAOSTAT2, designed among other things to improve the quality of data for

compilation, validation, estimation and analysis in the area of agriculture, forestry and fishing. The improvement in metadata that will constitute an integral part of this enhancement project will include work in the area of classifications. As part of this process, the FAO is undertaking a review of its classification system for agricultural products. This review considers links between the FAO product lists and international product classifications, such as the Harmonized System and the Central Product Classification.

- 84. Emerging from these activities, the FAO will make recommendation on improving the CPC in the areas relating to crop and animal production, forestry and fishery and related support services. In the context of the FAOSTAT2 project, the FAO supports the view that the CPC will serve as a central link to other existing product classifications containing detail in the area of agriculture, forestry and fishing. An Expert Group meeting in August 2004 will discuss needs, uses and resulting requirements for agricultural classifications. This will result in proposals for changes to the CPC, in order to make the CPC more adequate for agricultural statistics.
- 85. **Question:** Do you agree with this approach?
- 86. **Question:** Do you have any specific proposals for agriculture, forestry or fishery products that should be included in the CPC?
- e) Waste management products
- 87. The area of products related to environment and waste in particular, is emerging as one of increasing interest globally. As a consequence there is more pressure to take the opportunity to better reflect these areas during the revision of the product classification. In North America, in developing the NAPCS, work has been initiated on developing detailed products for environmental consulting, waste management services and remediation services. A broadly consultative process was launched involving businesses, associations and academics with the objective of arriving at new and representative product detail for inclusion in NAPCS. Work on the CPC revision can proceed collaboratively with the NAPCS development process if it is agreed that this detail will be instrumental in also facilitating the expansion of current CPC products such as: environmental consulting services, non-hazardous waste collection, waste treatment and disposal services, hazardous waste collection and waste treatment and disposal services and other environmental protection services.
- 88. A proposal is included in the paper presented at the last meeting of the Voorburg Group (Tokyo, October 2003).
- 89. **Question:** Do you agree with the approach outlined in the paper?
- f) Treatment of originals
- 90. Arising out of the discussion on products of the Information sector was the recognition that the content of information products originates from many sources.

- 91. Additionally, the question has arisen of how to address the output of this sector, for example, of an author engaged in the authoring of a written "work" on a speculative basis, with the hope of being able to publish this "work" and earn revenues. The question that is being posed is whether that "work" that an author, composer, etc. produces, should be represented as a product in the CPC, regardless of the media in which it is delivered. It is recognized that content can be embodied in a product or delivered in a live performance or through a variety of other media.
- 92. In revising the CPC, the treatment of products in tangible form will also have to be addressed to ensure that the classification captures all such products. The classification will need to precisely define those products that are in intangible form, distinguishing them from content, as for example in the case of a live performance. As an accompanying factor, the licensing services for the right to use entertainment, literary or acoustic originals will also have to be reviewed in the classification.
- 93. It should be noted that an Expert Group on the Measurement of Non-Financial assets (Canberra II) Group, established by the Statistical Commission has among its objectives to research into issues associated with the measurement of non-financial assets as part of the process of updating the SNA93. This group continues work in this area, with "Originals and Copies" as one of its subjects for review. An update on progress of the work of the Canberra II Group can be accessed in the paper posted on the website. A synopsis of the deliberations to date on "Originals and copies" is provided there. This topic is scheduled for further deliberation in November 2004.
- 94. Additionally, it is envisaged that ongoing work on NAPCS development will contribute to this discussion and will culminate in a proposal for the CPC revision.
- 95. *Question:* What is your position regarding the treatment of originals in the CPC?
- g) Others
- 96. As mentioned above, this list of proposals and discussion areas is not complete. Your input is required to make the CPC revision process successful. Major proposals can still be posted on the website.
- 97. **Question:** Are there other areas of interest or other proposals that you wish to include in this list?

X. POINTS FOR DISCUSSION

98. The issues described in this document relate to problem cases that have been discussed in recent years in connection with work on the Central Product Classification. Please contribute to this revision process by providing your comments on the questions outlined in this document and provide any additional comments or proposals that may benefit the CPC.

- 99. Supporting papers to this questionnaire are available on the UN Classifications Website at http://unstats.un.org/unsd/cr/cpc-2.asp.
- 100. Your comments should be received by 10 October 2004, so that they can be considered in the next round of deliberations by the Technical Subgroup.
- 101. Replies should be sent by e-mail to the UN Classifications Hotline at CHL@un.org or by mail to:

United Nations Statistics Division Attn.: Statistical Classifications Section New York, NY 10017, USA
