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Items for information: international statistical classifications

Report of the Expert Group on International Statistical Classifications

Note by the Secretary-General

In accordance with Economic and Social Council decision 2014/219, the Secretary-General has the honour to transmit the report of the Expert Group on International Statistical Classifications. The report provides updated information on work related to the development and implementation of international statistical classifications in various fields and describes the work carried out by the Expert Group on the coordination of classifications work and the international family of economic and social classifications.

The Statistical Commission is invited to take note of the report.

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* E/CN.3/2015/1.

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Report of the Expert Group on International Statistical Classifications

I. Introduction

1.   The Expert Group on International Statistical Classifications was charged by the Statistical Commission at its thirtieth session, held from 1 to 5 March 1999, with improving cooperation on international classifications and ensuring harmonization and convergence among classifications in the international family of economic and social classifications (see E/1999/24, chap. VII, para. 108).

2.   The international family of economic and social classifications comprises those classifications that play the role of standard classifications in individual or multiple statistical domains and have been reviewed and approved as guidelines by the Statistical Commission or another competent intergovernmental body on such matters as economics, demographics, labour, health, education, social welfare, geography, environment and tourism.

3.   The present report provides an overview of the main activities in the area of international statistical classifications carried out since the forty-fourth session of the Statistical Commission, held in 2013.

II. Activities of the Expert Group in 2013-2014

4.   The Expert Group on International Statistical Classifications met in New York from 13 to 15 May 2013 to discuss a wide range of topics relating to the scope of, and guidelines for, the international family of economic and social classifications, the review of development- and revision-related work on a number of international classifications in conjunction with their respective custodians, better communication with classification users, national and regional efforts to further progress with respect to the implementation of revised classifications by national statistical agencies, and the effective management of classifications.

5.   The Expert Group created a number of Technical Subgroups to work on specific issues under the guidance of the Expert Group itself, namely:

- International Standard Industrial Classification of All Economic Activities (ISIC), Rev 4
- Classification of Individual Consumption According to Purpose (COICOP)
- Central Product Classification (CPC) Ver 2.1
- Review of best practices
- Review of the international family of economic and social classifications
- Classification by Broad Economic Categories (BEC)

6.   In addition, the Expert Group continued to collaborate with, and support the work done by, international organizations such as the Food and Agriculture Organization of the United Nations (FAO), the United Nations Office on Drugs and Crime (UNODC), the International Labour Organization (ILO) and the United

Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics.

7.   The work of the Expert Group was administered by the Bureau, which met on a regular basis to ensure that the Expert Group functioned consistently throughout the period, that individual work elements were carried out, and that guidance and communication were facilitated for the Expert Group on matters pertaining to international statistical classifications.

III.   Work of the Technical Subgroups

A.   International Standard Industrial Classification of All Economic Activities, Rev.4

8.   The Expert Group on International Statistical Classifications, at its meeting held from 13 to 15 May 2013, considered a number of interpretation questions with regard to ISIC Rev.4 and a proposal for a revised treatment of specific outsourcing arrangements. Those questions reflected multiple requests for interpretation of ISIC in specific situations that are not explicitly addressed in the existing ISIC structure, explanatory notes or application rules.

9.   A key discussion point for the Technical Subgroup on ISIC Rev. 4 was the classification of factoryless goods producers, as presented by the Economic Commission for Europe (ECE) Task Force on Global Production and the Advisory Expert Group on National Accounts. The fact that discussions on this matter could not be resolved through electronic means necessitated a face-to-face meeting between members of the Technical Subgroup and members of the Task Force, which was held in New York in October 2014. The outcome of this meeting was the conclusion that, as factoryless goods producers are an emerging phenomenon, there is insufficient data available to make an informed decision on their treatment within the ISIC structure. It was agreed that a research plan and guidelines should be developed for national statistical agencies with a view to assisting them in understanding the phenomenon, and to enable an appropriate treatment to be determined.

10.   Other outstanding issues pertaining to ISIC that were noted in the United Nations classifications discussion forum were also resolved.

11.   The ability of the Statistics Division of the Department of Economic and Social Affairs of the United Nations to finalize completion of the *Implementation Guide for International Standard Industrial Classification of All Economic Activities (Isic) Rev.4* is a concern. As a result of resource constraints, there have been in delays in progress and the finalization process has been subject to pressure. The Expert Group anticipates that the guide will be available for discussion at its 2015 meeting.

B.   Classification of Individual Consumption According to Purpose

12.   A certain number of problems in the application of the Classification of Individual Consumption According to Purpose (COICOP had been raised in meetings of the Expert Group on International Statistical Classifications, as well as during classifications workshops and meetings conducted by various organizations.

13. The Statistics Division in coordination with the Expert Group decided to conduct a global inventory to ascertain the need for and scope of a possible revision of COICOP. In preparing the inventory as well as in analysing the results, the Division was supported by a Task Force consisting of experts from ECE, Eurostat and Statistics Austria. The global survey was conducted between October and December 2012.

14. The responses to the questionnaire were discussed during the May 2013 meeting of the Expert Group on International Statistical Classifications. The general view among countries was that there is a need to review and revise COICOP to ensure that it constitutes an adequate tool for the recording of households' consumption expenditures and for its other applications.

15. The Expert Group, as a first step, agreed to form a Technical Subgroup on case-law issues associated with COICOP. The Technical Subgroup could then be expanded to enable broader considerations in the context of a revision of COICOP and other classifications of expenditures according to purpose. It was decided that the Subgroup would consist initially of Expert Group members, although it could at a later point include price statistics experts and national accounts experts.

16. Many of the known issues could be resolved through application of agreed case laws; however, after this exercise, it was recognized that there were still significant issues that remain to be resolved, including the need to make structural changes to the classification.

17. Pursuant to this work, the Technical Subgroup is recommending the launch of a revision procedure for the COICOP classification. The matter will be discussed further at the 2015 meeting of the Expert Group.

C. Central Product Classification Ver.2.1

18. The Technical Subgroup considered a number of issues, in particular energy product-related issues. A number of smaller-scale clarifications, and work on the correspondence tables, were undertaken, along with a follow-up review of agricultural and food products by FAO, which provided a large number of proposals for change within CPC not only to improve details but also to ensure consistency with the relevant version of the Harmonized Commodity Description and Coding System (HS). As part of the final review of CPC, it was determined that a translation into Spanish was to be undertaken by the Working Group on International Classifications of the Statistical Conference of the Americas.

19. Consideration of the relationship of CPC to the Standard International Energy Product Classification enabled the identification of a number of challenges, including boundary issues in SIEC categories, which could not be addressed at the present time. These would be addressed in the context of a review process for SIEC, with a view to ensuring better alignment with the next CPC review.

20. The explanatory notes for and the introductory paragraphs of CPC were reviewed by the Technical Subgroup in preparation for the final publication of CPC.

21. The development of a complete set of explanatory notes for the goods part of CPC has been proposed as a long-term project. Its realization would eliminate the need to consult the notes for the Harmonized System, which are not publicly

available, with regard to CPC interpretation-related questions. As a first step, FAO will start to develop such notes for agriculture and food products in sections 0 and 2 of CPC.

D. Review of best practices

22. Work has been undertaken to produce a document that provides guidelines for best practices in the development, maintenance and implementation of international statistical classifications. The best-practice guidelines have been developed primarily for use by international organizations, national statistical agencies and other organizations that may develop, maintain and implement statistical classifications. These guidelines are to be utilized in conjunction with the original background document entitled "Standard statistical classifications: basic principles" on the basic principles of standard statistical classifications considered by the Statistical Commission at its thirtieth session in 1999. The new guidelines align with the Generic Statistical Information Model of the High-Level Group for the Modernization of Statistical Processes and Services, a terminology model, and include an updated definition of a statistical classification.

23. The best-practice guidelines are to be published on the Statistics Division website.

E. International family of economic and social classifications

24. The Expert Group confirmed that the international family of economic and social Classifications would include all international classifications that represent standards for a given statistical domain, whether explicitly approved by the Statistical Commission (or a similar body) or not. The intention is to ensure that the international Family of economic and social classifications will (a) provide a better overview of the actual requirements to be followed by countries; (b) allow an assessment of the quality of classifications according to the list of criteria being developed; (c) also allow a better assessment of the linkages between existing classifications; and (d) provide more value to users.

25. The Statistics Division has prepared a first comprehensive draft of a list of classifications in the context of this notion of the extended family. This draft list will be reviewed and further discussed by the Expert Group.

26. Work has also been carried out on developing a supporting document to assist custodians promoting a classification within the international family of economic and social classifications, along with a document on grading criteria designed to enable international statistical classifications to be classified as either reference, derived, related or other. The grading criteria will be reviewed by the full Expert Group at its 2015 meeting.

F.   Classification by Broad Economic Categories

27.   At its biennial meeting held in New York from 18 to 20 May 2011, the Expert Group on International Statistical Classifications agreed to establish a Technical Subgroup for the revision of the Classification by Broad Economic Categories (BEC). The terms of reference of the Technical Subgroup on the revision of BEC stipulated that the Technical Subgroup should improve the fourth revision of BEC along four dimensions, namely:

(a)   Redefining the BEC structure to better reflect current economic reality;

(b)   Extending the scope of BEC to include services as well as goods, while giving extra attention to the definition of intermediate goods;

(c)   Improving explanatory materials to help both compilers and users of data disseminated according to BEC;

(d)   Providing updated correspondence tables to link BEC with other statistical classifications.

28.   The Statistical Commission expressed support for this work at its forty-fourth session in 2013.

29.   The draft version of the Manual of the Fifth Revision of the Classification by Broad Economic Categories was sent, within the framework of a global consultation process, in June 2014, to the statistical offices of all States Members of the United Nations. Offices were requested to provide their opinion on the overall content of the Manual and on some specific questions related to the proposed revisions with respect to the structure, scope and definitions of BEC. The results of the consultation have been collated and a final draft is being prepared for discussion by the Expert Group on International Statistical Classifications at its 2015 meeting.

IV.   Other work on international classifications

30.   The Expert Group on International Statistical Classifications has continued to liaise and collaborate with custodians who are reviewing their statistical classifications, by providing best-practice advice; reviewing the concepts and principles of existing and emerging international classifications; facilitating the harmonization of related classifications; reviewing classifications against the criteria for inclusion in the international family of economic and social classifications; and facilitating or undertaking classification reviews where appropriate.

A.   International Classification of Crimes for Statistical Purposes

31.   The international process initiated to produce the International Classification of Crimes for Statistical Purposes is concluding with the submission of the Classification to the Statistical Commission (see E/CN.3/2015/7). Through the application of this highly needed statistical standard, some of the challenges associated with crime statistics will be addressed. The International Classification of Crimes will constitute a reference standard for the production of such data, whose comparability and accuracy have traditionally been marred by disparities among definitions, national legislation and reporting systems.

32.   The approach used by the International Classification of Crimes to overcome existing challenges is to define criminal offences on the basis of behavioural descriptions rather than strictly legal specifications derived from criminal laws. This events-based approach, which avoids issues stemming from legal complexities, results in a simplified and globally applicable classification. The International Classification of Crimes provides a framework for the systematic production and comparison of statistical data across different criminal justice institutions and jurisdictions. This means that the International Classification will be applicable to all forms of data on crime which are collected at different stages of the criminal justice process (in relation to the police, prosecution, conviction and imprisonment) as well as in crime victimization surveys.

33.   The finalization of the International Classification of Crimes is the concluding step of a process which began in in 2009, when the Conference of European Statisticians established the Joint Task Force on Crime Classification, led by the United Nations Office on Drugs and Crime (UNODC) and ECE, to develop a crime classification framework. The principles and framework for an international classification of crimes for statistical purposes was endorsed by the Conference of European Statisticians at its sixtieth plenary session, held from 6 to 8 June 2012. Subsequently, the Statistical Commission, at its forty-fourth session in 2013 (see E/2013/24, chap. I.C, decision 44/110), approved a plan to develop an international classification of crimes for statistical purposes, in consultation with statisticians and experts from national statistical offices, other national government institutions and regional and international organizations. At its twenty-first session in 2013, the Commission on Crime Prevention and Criminal Justice recommended to the Economic and Social Council that it approve the plan to finalize by 2015 the International Classification (see E/2013/30, chap. I.B, draft resolution I).

34.   UNODC led the process that, after successive steps of consultation and testing, enabled the finalization of the International Classification of Crimes, which was achieved in close cooperation with the UNODC-INEGI Center of Excellence for Statistical Information on Government, Victimization of Crime, Public Security and Justice, the World Health Organization (WHO), the United Nations Development Programme (UNDP), Eurostat, the Inter-American Development Bank (IADB) and the Organization of American States (OAS). (Note: "INEGI" is the acronym for the National Institute for Statistics and Geography, an autonomous body within the Government of Mexico.) Furthermore, the International Classification has been reviewed by the Expert Group on International Statistical Classifications, as the central coordinating body in the work on international classifications, established by the Statistical Commission.

B.   International Classification of Activities for Time Use Statistics

35.   The Statistics Division continues to work on the finalization of the International Classification of Activities for Time Use Statistics (ICATUS) based on: the outcomes of the United Nations Expert Group Meeting on the Revision of the United Nations Trial International Classification of Activities for Time Use Statistics, convened in New York from 11 to 13 June 2012; the adoption of the resolution concerning statistics of work, employment and labour underutilization by the nineteenth International Conference of Labour Statisticians, held in Geneva from 2 to 11 October 2013; and comments received from national statistical offices.

36. The finalization of the International Classification of Activities for Time Use Statistics was delayed owing to the ongoing work shared jointly between the Statistics Division and ILO on reconciling and aligning the International Classification with the new ILO definition of work. In particular, challenges include: (a) aligning the concepts of productive/ non-productive activities of ICATUS (based on the SNA framework, as requested by countries and experts) with the different forms of work identified by ILO in the new resolution, and the fact that subsistence production is no longer part of employment; (b) listing/classifying activities undertaken by persons working in their own economic units for the production of goods and services intended for the market, in such a way as to ensure that the type of activity that they have engaged in is still visible in the classification, instead of being labelled simply as employment. Given the difficulties in capturing/estimating household production (also for the main SNA accounts), countries that have adopted/adapted ICATUS in its trial version have stressed the importance of giving full visibility in ICATUS to activities undertaken in this sector of production, even when those activities produce goods and services intended for pay or profit.

37. Once finalized, the International Classification of Activities for Time Use Statistics will be reviewed by the Expert Group on International Statistical Classifications to ensure its alignment with the criteria for international classifications as well as with other relevant international classifications. It is expected that the International Classification of Activities for Time Use Statistics. will be submitted, for adoption, to the Statistical Commission at its forty-seventh session in 2016.

C. Agriculture classifications

38. FAO has worked closely with the Expert Group on International Statistical Classifications, particularly in providing advice with respect to CPC and its relationship with the Harmonized Commodity Description and Coding System. In addition, FAO has produced guidelines on international classifications of agricultural statistics, which have been reviewed by members of the Expert Group.

D. International Standard Classification of Occupations

39. ILO has provided ongoing support for the implementation of the International Standard Classification of Occupations (ISCO-08), and for its adaptation for use at national and regional levels, through the provision of training and direct technical assistance to countries and participation in regional working groups and discussion forums.

40. The ILO *International Standard Classification of Occupations*, volume 1, *Structure, Group Definitions and Correspondence Tables* (Geneva, International Labour Office, 2012) has been translated into French, Russian and Spanish. ILO is currently updating the French and Spanish versions to reflect the comments on the translations received from the national statistical offices of French- and Spanish-speaking countries. The Russian version is available on the website of the ILO Moscow office.

41. A translation into Arabic, developed with the assistance of Saudi Arabia, has been circulated to a number of countries for comment. This work was undertaken in

the context of a project to develop an Arab standard occupational classification based on ISCO-08. This project is being led by Saudi Arabia with support from ILO and the Arab Labour Organization. The aim is to develop a classification system for both statistical and administrative purposes which would be used initially in Saudi Arabia, but which could be subsequently adapted for wider use.

42. ILO is also collaborating with the European Commission to ensure that the Classification of European Skills, Competences, Qualifications and Occupations (ESCO), currently under development, is correctly linked to ISCO. This Classification identifies and categorizes, in 22 European languages, skills, competences, qualifications and occupations that are relevant for the European labour market. Its stated aims are, inter alia, to assisting bridging the communication gap between education and work, in the online matching of people and jobs and in facilitating labour mobility throughout Europe, and to provide support in respect of the production of statistical information. The highly detailed information being collected as part of the ESCO project, together with information gathered from similar projects in other parts of the world, will be an invaluable source of information once the International Standard Classification of Occupations is eventually updated.

43. In line with the United Nations best-practice guidelines for international classifications, which state that a revision or update of major international reference classifications should be considered every five years, ILO consulted during 2013 with national experts on the classification of occupations and the Expert Group on International Statistical Classifications to ensure that all the problems and concerns encountered in implementing ISCO-08 were identified. A report outlining the results of this consultation and discussing the case to be made for starting work on a revision or update was considered in October 2013 at the nineteenth International Conference of Labour Statisticians.

44. This report noted that, while feedback on ISCO-08 had been highly positive, a number of issues had begun to emerge during the implementation of the classification. Some problems were related to the application of skill level as a classification criterion, which suggested the possible need for a major revision, but with the existing underlying conceptual model being retained. These problems impose limits on the usefulness of ISCO-08 for the provision of statistics on underutilization and shortages of skills for which there is a strong demand. The other issues identified were not numerous and could be dealt with in the context of a minor update. This could be completed relatively quickly and would entail changes only to categories at the detailed level, with the structure at aggregate levels remaining the same.

45. Participants at the nineteenth International Conference of Labour Statisticians expressed a range of views on the relevance, time frame and frequency of an eventual revision or update of ISCO-08. Some were in favour of an update in the short term which would reflect economic and technological changes that had taken place over the previous five years. Many were concerned that, while there was a need to consider broader issues such as those related to skill level, skills underutilization, business structures, and the identification of occupations associated with green jobs, there had not been enough time to enable the accumulation of the experience in using ISCO-08 needed for the carrying out an in-depth revision. It was noted that the implementation costs of even small changes were too high to justify frequent revisions.

46.   While there was no consensus in favour of a short-term update, there was concern that starting the preparatory work for a more in-depth revision of ISCO-08 only after the twentieth International Conference of Labour Statisticians, which it is expected will be held in 2018, could mean that few countries would be able to implement the new classification until the 2030 census round.

47.   ILO is therefore continuing to document the issues and problems associated with ISCO as they are identified, with the aim of presenting a developed set of options for revision, which could be presented to the twentieth International Conference of Labour Statisticians. Potentially, those options could be developed with the support of a technical group and/or a web-based discussion forum.

E.   Revision of the International Classification of Status in Employment

48.   The International Classification of Status in Employment (ICSE-93) was adopted by the fifteenth International Conference of Labour Statisticians in its resolution III of 28 January 1993. The International Classification of Status in Employment classifies jobs with respect to the type of explicit or implicit contract of employment subsisting between the job holder and the economic unit in which he or she is employed. Five substantive categories are specified: employees, employers, own-account workers, members of producers' cooperatives and contributing family workers. The last four categories can be aggregated to form the self-employed.

49.   These categories no longer provide sufficient information to adequately monitor changes in employment arrangements that are occurring in many countries and are not sufficiently detailed to enable the monitoring of various types of precarious or non-standard forms of employment. A variety of new contractual arrangements which aim to increase flexibility in the labour market are leading to increasing uncertainty regarding the boundary between self-employment and paid employment, while at the same time generating a need for statistical information to enable a monitoring of the impact of these arrangements.

50.   Pursuant to a review of the range of national practices with respect to statistics on status in employment and on the employment relationship more generally, a discussion paper on the need for revision of ICSE-93 (room document 8) was presented at the nineteenth International Conference of Labour Statisticians in October 2013. There was a strong consensus at the nineteenth International Conference on the need to revise ICSE-93 to better account for the latest developments in labour markets and to reflect the adoption at the nineteenth Conference of resolution I concerning statistics of work, employment and labour underutilization, in which the Conference moved the boundary between employment and some other forms of work.

51.   Since it could be difficult, within a single and coherent classificatory framework, to satisfy the numerous and very different purposes for which ICSE is used, ILO is developing a work plan and a set of proposals for replacing ICSE-93 with a suite of standards for statistics on the employment relationship, instead of incorporating a number of overlapping concepts and characteristics within a single complex classification. An updated classification of status would thus be complemented by a series of supporting variables dealing with various aspects of the relationship between the worker and the economic unit within which she or he

works. It is anticipated that these standards will be submitted to the twentieth International Conference of Labour Statisticians in 2018 in the form of a draft resolution for discussion, amendment and ultimate adoption.

52. The issues to be addressed in the revision will include the following:

(a) Need for an overarching conceptual and statistical framework to ensure coherence with various domains of social, labour and economic statistics and to allow the provision of harmonized statistics from different sources;

(b) Whether or not the scope of the resolution and of the new classification of status in employment should be restricted to employment or extended to cover some or all other forms of work specified in the resolution concerning statistics of work, employment and labour underutilization, adopted by the nineteenth International Conference of Labour Statisticians;

(c) Relevance and usefulness of maintaining a distinction between paid employment and self-employment as a dichotomous pair of high level-categories, given the wide range of analytical uses of these categories and the increasing number of types of employment arrangement that do not fit comfortably into either;

(d) The boundary between self-employment and paid employment, particularly with respect to working proprietors (owner-managers) of incorporated enterprises and dependent contractors;

(e) Which concepts should be included in a central classification of status, and which should be identified as separate variables within the overarching conceptual framework;

(f) Applicability of the standards to informal employment situations;

(g) Need for guidelines on data collection, questionnaire design and derivation;

(h) Identification of workers in various types of precarious employment such as casual, short-term, temporary and seasonal employees, and workers on zero-hour contracts;

(i) Identification and statistical treatment of various specific types of worker including apprentices, trainees and interns, entrepreneurs, family workers, domestic workers, members of producers' cooperatives, and workers engaged by labour-hire agencies.

53. It is expected that ILO work on revising ICSE will be supported by a working group, to include not only labour statisticians but also experts in national accounts statistics, and representatives of workers' and employers' organizations. It is anticipated that the first meeting of this working group will be held during the first half of 2015.

F. Classifications management

54. The Expert Group on International Statistical Classifications continues to support the Statistics Division in the maintenance of the classifications website, and the discussion forum and in the compilation and dissemination of the Classifications Newsletter.

55. Other mechanisms for classifications management were discussed at the 2013 meeting, for example, the development of the new Statistics New Zealand Classification Management System, and the national classifications section of the United Nations Classifications Registry.

56. The 2013 meeting also included discussions on the role of international standards in the context of the issues associated with defining them, determining their impact on statistical work, and identifying existing barriers to the full and consistent adoption of such standards in all countries. The underutilization of standards was perceived as a concern.

V. Future work and organization of the Expert Group

57. The Expert Group reviewed its working arrangements and progress made since its 2013 meeting. The Expert Group was able to function more consistently throughout the period, with improved communication between the Bureau and the Expert Group, and greater involvement in a wider array of international statistical classifications-related matters. The minutes of the Bureau meetings and action item lists are circulated to Expert Group members to provide transparency in respect of the process and to keep the Expert Group informed on progress in its many areas of work. At its 2015 meeting, the Expert Group will discuss the terms of reference of the Bureau and its continued functioning as an intermediary between the Statistics Division and the Expert Group itself. In addition, the Expert Group will continue to expand its areas of interest to encompass wider statistical classification matters such as environmental classifications, disaster risk reduction statistics, integration of statistical and geospatial classifications, big data impacts and other new areas of official statistics.

Annex

Members of the Expert Group on International Statistical Classifications

Bureau

- Andrew Hancock (New Zealand), Chair
- Alice Born (Canada)
- Ana Franco (Eurostat)
- Eva Castillo (Mexico)
- Severa de Costo (Philippines)
- Ralf Becker (Statistics Division), ex officio

Countries

Australia, Austria, Brazil, Canada, China, Costa Rica, France, Germany, Ghana, India, Japan, Jordan, Mexico, Morocco, New Zealand, Oman, Philippines, Republic of Korea, Russian Federation, Singapore, Sweden, Switzerland, United States of America

Organizations

Eurostat, Food and Agriculture Organization of the United Nations, International Labour Organization, United Nations Educational, Scientific and Cultural Organization Institute for Statistics, Statistics Division of the Department of Economic and Social Affairs of the United Nations

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