Asia and Pacific Commission on Agricultural Statistics

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International Classifications of Agricultural Commodities: Report on FAO Activities

Summary

After a brief introduction on international classifications and their purposes, the report introduces the Central Product Classification of the UN (CPC) and the Harmonized Commodity Description and Coding System (HS). The progress made in the review and update for agricultural statistics of these major international standards are presented along with the adoption by FAO of the CPC expanded for agricultural statistics. Other activities undertaken by the Organization in the framework of agriculture commodity classifications are also described, including the development of an online database and the conducting of a global survey on national agriculture and food product classifications. Contribution and advice from the Commission is sought at the end of the document on strengthening collaboration in the domain of classifications between the APCAS member countries and the FAO, thus contributing to agricultural data harmonization in the Asia and Pacific region and at the international level.

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INTRODUCTION

A classification is defined by the United Nations Statistics Division (UNSD) as “a set of discrete, exhaustive and mutually exclusive observations which can be assigned to one or more variables to be measured in the collation and/or presentation of data”.

The primary purpose of statistical classifications is to provide a framework to collect and analyse data, and to report and compare statistics at the international level. Statistical classifications can be used to standardize statistical information, aggregate and disaggregate data sets in a meaningful way, and to support policy and decision-making. International classifications are essential mechanisms for the harmonization and coordination of data compilation. They allow national data and indicators to be comparable with those of other countries at the global level, thus facilitating countries inclusion in global statistical activities. To ensure data comparability and harmonization at the global level, international classifications should be taken as reference in the development of regional and derived national classifications. Indeed, for better relevance and applicability and to suit country requirements, international classifications can be adapted to national statistical and economic needs and conditions.

Since 2005 the FAO has continued collaboration with other International Organizations for the improvement of major international classifications aimed at better integrating and representing the agricultural sector. As a result, the Central Product Classification of the United Nations Ver.2 (effective since 2009) and the Harmonized Commodity Description and Coding System 2012 edition (into force since the 1st January 2012) have increased significantly the detail on agricultural products.

Such developments set the conditions for FAO to adopt these standards as reference classifications for statistics on agricultural products in the production and trade domain. The implementation of these schemes are expected to reduce data reporting burden of countries, increase data comparability across countries and statistical domains, enhance compliance of FAO’s standards with international ones, and improve the transparency and governance mechanisms for the management and review of classification systems in the Organization.

CLASSIFICATIONS OF COMMODITIES

The FAOSTAT commodity list (FCL)

The classification of agricultural commodities currently used by FAO is the FAOSTAT Commodity List (FCL). The FCL, developed in the ‘60s, was originally based on SITC, the Standard International Trade Classification of the UN. It includes 683 commodities, grouped in 20 chapters. The FCL covers crops and livestock, both primary and derived products. It excludes agricultural inputs (such as fertilizers, pesticides and machinery), fishery and forestry products.

The purpose of the FCL is to provide a framework for collecting and analysing data on production and trade and, ultimately, to compile the Supply Utilization Accounts and Food Balance Sheets (SUA/FBS) for the estimation of undernourishment.

Its structure reflects the item “commodity tree”, which means that the primary crop and its derived products are traceable all along the value chain of agricultural production. Correspondence tables allow the

1 From now on, the term agriculture is intended to cover exclusively crops and livestock and derived products; fisheries and forestry are defined specifically when included.
2 www.fao.org/waicent/faoinfo/economic/faodef/faodefe.htm#NOTE
mapping of the FCL to major international standards for the classification of production and trade of goods, such as CPC and HS.

**The Central Product Classification of the United Nations (CPC)**

The Central Product Classification is developed and maintained by the United Nations Statistics Division (UNSD). The main purpose of the CPC is to provide a framework for facilitating the international comparison of product statistics and to serve as a guide for developing or revising existing classification schemes in order to make them compatible with international standards. CPC was developed primarily to enhance harmonization across various fields of economic and related statistics and to strengthen the role of national accounts as an instrument for the coordination of economic statistics. It includes goods and services that are output from economic activities and generally follows the definition for products used in the System of National Accounts (SNA).

The CPC has a five-digits hierarchical structure organized in sections (identified by the first digit), division (first and second digits), groups (first three digits), classes (first four digits) and subclasses (all five digits) as shown in figure 1. Products are classified into categories according to their physical properties and intrinsic nature as well as the principle of industrial origin. Indeed, each subclass of the CPC consists of goods or services that are predominantly produced in a specific ISIC class or classes and is defined as the equivalent of one or the aggregation of several headings or subheadings of the Harmonized System. The HS itself uses primarily the physical property criterion for classifying goods. The CPC version currently in use is CPC Ver.2.3, which was updated in 2008 and became effective in 2009. The revision process for the CPC Ver.2.1 is currently underway.

**Figure 1: CPC codes reflect the classification structure**

- **CPC governance mechanism**

The Expert Group on International Classifications (EG), coordinated by UNSD, aims at developing a strategy for the convergence of international classifications. The group meets at least every two years and reports to the United Nations Statistical Commission (UNSC) following each meeting. Specific technical, analytical or exploratory tasks are carried out by Technical Subgroups (TSG) of the Expert Group. Members of the EG are representatives from International Organizations, countries, custodians, major

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users of international statistical classifications and experts in the development and application of international classifications.

- **FAO contribution to the review of the CPC**

  FAO has been contributing to the improvement of CPC since 2005, through participating in the review of the CPC Ver.2.0 (2005-2008) and CPC Ver.2.1 (2011 – ongoing).

  The FAO proposal for CPC Ver.2.0 (based on CPC Ver.1.1) was submitted to the Technical Subgroup of the Expert Group on International Classifications (EG) in 2005 with the aim of increasing proper detail for agriculture products. The proposal was well received and resulted in a total number of 550 items of agriculture in CPC Ver.2 compared to about 260 in CPC Ver.1.1.

  CPC Ver.2.0 entered into force in 2009 and is still effective, although a new round for its review has already started and a second FAO proposal was submitted to the EG Meeting in May 2011 by the Statistics Division in cooperation with the Fisheries and Aquaculture Department and the Forestry Department. Indeed, beside agriculture, this time the proposal included also fishery and forestry products. Such expansion in the scope of the FAO contribution represents an important achievement and provides CPC Ver.2.1 with the opportunity to become central also in the fisheries and forestry statistical domains. The FAO proposal has been endorsed by the EGM and is currently under review in the Technical Subgroup. The final structure will be submitted to the next session of the UN Statistical Commission in February 2013. CPC Ver.2.1 is expected to enter into force shortly afterwards.

- **Adoption of the CPC in FAO**

  A common classification for agricultural products was not available at the international level before CPC Ver.2 was completed in 2008. The structure and list of items in the old CPC Ver.1 and 1.1 were not suitable, and too aggregated to be useful for agricultural statistics.

  Given the progress made for integrating agriculture products into CPC Ver.2, and the increased harmonization between CPC and HS, in July 2011 the FAO Statistical Coordination Working Group (SCWG) endorsed the proposal to implement CPC in FAO as the central classification for agricultural products in the production domain. By implementing a common global classification backed up with common and standardized item names, titles, definitions, descriptions and data groups, FAO aims at decreasing the reporting burden for countries, facilitating and enhancing the comparability of statistical data over time and across countries and the harmonization of official statistics at the global level.

  However, as a general purpose scheme, CPC provides less detail on agriculture than what required by the specialized nature of the FAO. Therefore, when implementing CPC, FAO will use an expanded structure to further disaggregate agriculture data available. This structure will overcome the lack of information available on primary products in the CPC at five digits, by adding detail at the lower level (sixth level) as showed in the example below (figure 2 and table 1).

  The proposal for the development of a CPC expanded for agriculture and food statistics was endorsed by the Expert Group on International Classification in May 2011. In that occasion it was agreed to present

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5 Not including fishery and forestry.

6 Since detail may exceed 9 items in FCL, the CPC expansion has been designed to range from 0 to 99 positions (.00 - .99) differently from the standard CPC structure, where each level can be divided into 9 sub-levels maximum.
the expansion for agriculture at the following session of the UN Statistical Commission as an official annex of the CPC Rev.2.1.

Figure 2: CPC code expanded to accommodate FAOSTAT detail

### Table 1: Example of expansion in CPC for tubers (FAO expansion in grey shading)

<table>
<thead>
<tr>
<th>GROUP</th>
<th>CLASS</th>
<th>SUBCLASS</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>015</td>
<td></td>
<td></td>
<td>Edible roots and tubers with high starch or inulin content</td>
</tr>
<tr>
<td>0151</td>
<td>01510</td>
<td></td>
<td>Potatoes</td>
</tr>
<tr>
<td>0159</td>
<td></td>
<td></td>
<td>Other edible roots and tubers with high starch or inulin content</td>
</tr>
<tr>
<td>01591</td>
<td></td>
<td></td>
<td>Sweet potatoes</td>
</tr>
<tr>
<td>01592</td>
<td></td>
<td></td>
<td>Cassava</td>
</tr>
<tr>
<td>01592.01</td>
<td></td>
<td></td>
<td>Cassava, fresh</td>
</tr>
<tr>
<td>01592.02</td>
<td></td>
<td></td>
<td>Cassava, dried</td>
</tr>
<tr>
<td>01593</td>
<td></td>
<td></td>
<td>Yams</td>
</tr>
<tr>
<td>01599</td>
<td></td>
<td></td>
<td>Edible roots and tubers with high starch or inulin content, n.e.c.</td>
</tr>
<tr>
<td>01599.01</td>
<td></td>
<td></td>
<td>Yautia (Cocoyam)</td>
</tr>
<tr>
<td>01599.02</td>
<td></td>
<td></td>
<td>Taro (Cocoyam)</td>
</tr>
<tr>
<td>01599.91</td>
<td></td>
<td></td>
<td>Roots and tubers nes</td>
</tr>
<tr>
<td>01599.92</td>
<td></td>
<td></td>
<td>Roots and Tubers, Dried nes</td>
</tr>
</tbody>
</table>

The presentation of the CPC Ver.2.1 - and related annex - to the UNSC has been then postponed to the session in February 2013.
The Harmonized Commodity Description and Coding System (HS)

The HS, developed and maintained by the World Customs Organization (WCO), is the trade nomenclature most widely used in the world. 206 countries, territories or customs or economic unions utilize it as the basis for Customs tariffs and for the compilation of trade statistics. In HS, commodities are generally classified according to raw or basic material, to the degree of processing, the use or function and economic activities. HS is a detailed listing of commodities rather than a proper classification for the purpose of organizing official statistics. The HS version currently in use is HS 2012\(^8\); the next version will be the 2017 edition, for which the review process is underway.

- **HS governance mechanism**

  The maintenance of the HS includes measures to secure the uniform interpretation of HS and its periodic updating in light of developments in technology and changes in trade patterns. Each “Review Cycle” typically lasts five years. The WCO manages this process through the Harmonized System Committee\(^9\) (representing the Contracting Parties to the HS Convention), and more specifically through its HS Review Sub-Committee\(^10\) (RSC). The HS Committee and RSC meet twice a year; they examines policy matters, takes decisions on classification questions, settles disputes and prepares amendments to the Explanatory Notes. The HS Committee and RSC are attended by WCO member countries; International Organizations are also invited to participate as “observer” members, they have a consultative role but not voting power (differently from countries).

- **FAO contribution to the review of the HS**

  The first FAO proposal for the HS revision was submitted and presented at the 35\(^{th}\) Session of the HS Review Sub-Committee held in Brussels in May 2007 and was finally adopted at the 43\(^{rd}\) Session of the HS Committee in March 2009. It consisted in proposed amendments to and the addition of agriculture and fishery items in HS 2012. As follow-up actions, FAO was requested by WCO and its member Customs Administrations to continue cooperation and to provide further technical expertise for the subsequent preparation of HS explanatory notes and identification criteria. These activities were successfully accomplished at the 47\(^{th}\) session of the HS Committee, held in March 2011. As a result, the HS 2012 includes more than 300 new agriculture and fishery items. Such amendments have made this version of HS more suitable and useful to agriculture and fisheries statistics, and established solid correspondences and harmonization with CPC.

  The work on HS 2017, 5\(^{th}\) HS Review Cycle, commenced in November 2009 and is expected to be completed by June 2014. The revised version will enter into force on 1 January 2017. On the occasion of the 42\(^{nd}\) session of the Review Sub-Committee (RSC) in November 2011, FAO has renewed its willingness to cooperate with the WCO for the update and enhancement of the HS 2017. Accordingly, a new proposal was submitted to the 43\(^{rd}\) session of the RSC and is currently under evaluation by the WCO members.

  The proposal is very comprehensive and, in this new round, covers fishery, agriculture, forestry products and agricultural inputs. It includes contributions from the Statistics Division, who coordinated the work, the Fisheries and Aquaculture Department, Forestry Department, Agriculture and Consumer

\(^{8}\) [http://www.wcoomd.org/home_hsnomenclaturetable2012.htm](http://www.wcoomd.org/home_hsnomenclaturetable2012.htm)

\(^{9}\) [http://www.wcoomd.org/home_hsoverviewboxes_committees_committrchs.htm](http://www.wcoomd.org/home_hsoverviewboxes_committees_committrchs.htm)

\(^{10}\) [http://www.wcoomd.org/home_hsoverviewboxes_committees_committrchsrewsub.htm](http://www.wcoomd.org/home_hsoverviewboxes_committees_committrchsrewsub.htm)
Protection Department and Trade and Markets Division. Other international organizations have also contributed to the preparation of the proposal, and notably the National Oceanic and Atmospheric Administration (NOAA), the U.S. Fish and Wildlife Service, the U.S. Department of State, Eurostat, ITTO (International Tropical Timber Organization), UNECE (United Nations Economic Commission for Europe), VDMA (Verband Deutscher Maschinen und Anlagenbau, the German Machinery and Equipment Federation), ABIMAQ (Associação Brasileira da Indústria de Máquinas e Equipamentos, the Brazilian Agricultural Machinery Association) and AAPRESID (Asociación Argentina de Productores en Siembra Directa).

- **Adoption of the HS in FAO**

  The HS is already in use in FAOSTAT. However, data received from countries in this format are currently converted into FLC format for the compilation of food balance sheets. For the future, trade data will be disseminated by FAOSTAT in HS format without any further conversion. This will reduce the error introduced when converting data from HS to FCL, it will increase information available to the users and comparability between agriculture data disseminated by FAOSTAT and trade data from other statistical fields.

**OTHER ACTIVITIES**

**The Questionnaire on National Agriculture and Food Products Classifications**

A questionnaire on national classifications used for agriculture and food products has been designed in order to assess the countries’ practices and the extent to which international standards are used, with a particular reference to the CPC\(^{11}\).

The aim of the questionnaire is also to understand how classifications are managed (i.e. stored, maintained and disseminated) and to identify country needs on technical assistance and capacity development in this domain. The results of the survey are expected to provide a useful tool for decreasing country reporting burden and improving FAO’s data collection system, thus enhancing data harmonization at the international level.

Along with the questionnaire filled in, countries are kindly asked to provide the classification focal point contacts and to transmit any documentation to help us in understanding the classification(s) implemented in their systems (e.g. the classification codes, titles, definitions, correspondence tables etc).

The first dissemination round of the questionnaire has been conducted between January and February 2012. Over this period time, 71 questionnaires in English have been sent to 68 countries, of which 13 are in the Asia and Pacific region\(^{12}\). Thirty five countries have replied to the questionnaire for a total 45 questionnaires received. Forty seven classifications have been reported, 81 percent of which are CPC or

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\(^{11}\) Annex 1 and 2 of this report and available online at the following web addresses: [www.surveymonkey.com/s/faoclassifications](http://www.surveymonkey.com/s/faoclassifications); [www.surveymonkey.com/s/faoclassifications-fr](http://www.surveymonkey.com/s/faoclassifications-fr).

\(^{12}\) Afghanistan, Australia, Bangladesh, Bhutan, Fiji, Indonesia, Japan, Lao PDR, Malaysia, Nepal, New Zealand, Philippines, Sri Lanka.
other international standards aligned with CPC\textsuperscript{13}. Feedback from APCAS countries is consistent with these results.

A second round of the classification survey has been planned by the end of the year. Contribution from the APCAS member countries in completing the questionnaire and providing comments on its improvement for the future would be highly appreciated.

**The Database on Commodity Classifications**

A database on classifications where all information on FAOSTAT Commodity List is organized, stored and made searchable has been designed (including codes, titles, scientific and common names, definitions and correspondences to other international standards). It includes search functions by codes and keywords allowing the user to easily search and visualize correspondences between the FCL, CPC and HS.

The database also contains links to some agriculture product lists used at country level. At this stage information on national classifications covers Sub-Saharan Africa exclusively, as provided by the CountrySTAT project, but in the future plans are to extend to all countries.

The database is available on the ESS webpage on classifications and standards (http://www.fao.org/economic/ess/ess-standards/en/), link to “Search the FAOSTAT commodities and inputs list” (http://www.fao.org/economic/ess/ess-standards/commodity/en/). It is currently available in English only.

**QUESTIONS AND INVITATIONS TO THE COMMISSION**

- Consider and advise the FAO on future work in the area of classifications for agricultural statistics; strengthen collaboration in the domain classifications between the APCAS member countries and FAO, thus contributing to data harmonization in the Asia and Pacific region and at the international level.

- APCAS countries are kindly invited to share with the FAO Statistics Division the contacts of their classifications’ focal points and information on the commodity classifications used through fill-in the classifications questionnaire\textsuperscript{14}.

Questions, inputs and contributions can be can be sent by e-mail to Ms. Valentina Ramaschiello, FAO Statistics Division (valentina.ramaschiello@fao.org).

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\textsuperscript{13} CPC or CPC based schemes account for the 49 percent (including CPA/PRODCOM –Eurostat- and NOPEMA –Afristat-); ISIC, HS, the European Regulations and FAOSTAT account for 32 percent; the remaining 19 percent does not use international schemes.

\textsuperscript{14} Annex 1 and 2 of this report and available online at the following web addresses: www.surveymonkey.com/s/faoclassifications; www.surveymonkey.com/s/faoclassifications-fr.