



ESA/STAT/AC.267/6
6 May 2013

UNITED NATIONS
DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION

Expert Group Meeting on International Statistical Classifications
New York, 13-15 May 2013

Criteria to become a member of the International Family of Classifications

Andrew Hancock, Statistics New Zealand

Criteria to become a Member of the International Family of Classifications

(Version as at 19 April 2013)

Introduction

In order for an international statistical classification to become a member of the International Family of Classifications the following criteria must be met:

1. Custodian of the classification

There must be a custodian for the classification.

The custodian of an international statistical classification can be:

- the international agency or organisation that is responsible for the classification in a subject matter capacity, for example ILO for the classifications of occupations and status in employment, WHO for health classifications or UNESCO for education classifications;
- the international agency or organisation that is responsible for coordinating the development, review or implementation of the classification, for example UN Statistics Division;
- a regional organisation if there is no other international agency;
- or any combination of the above.

The classification custodian should work with other custodians of international classifications to improve the relationship between the agencies and organisations, and/or the classifications themselves. It is important that the custodians recognise any commonalities across classifications to ensure consistency in the definition and treatment of related categories.

2. Primary use of the classification

The primary use of the classification is within the statistical environment for the collection, production and dissemination of statistics and this is often detailed as part of the rationale for developing the classification.

In a non-statistical environment, the use of the classification is to facilitate integration with statistical data in a standard and consistent way. A statistical classification may be used in a way for which it was not considered when it was first developed. For example, an occupation classification developed solely for statistics may be used by a job-seeker to ascertain information about specific occupations to assist them in obtaining a job, or for classifying skills within the labour force.

However the non-statistical usage should not override or compromise the primary statistical purpose.

3. Underlying concepts used in the classification

The major concepts that are used for developing the classification must be defined so that users are clear about what the classification is measuring.

It should be detailed how the different levels of the classification are developed or defined i.e. what concepts are used to define each level. For example an industry classification might be built on a broad concept of production orientation or supply-based demand. The detailed industries that are assigned to each broad grouping will be differentiated by taking into account the inputs, as well as the process and technology of production, the characteristics of the outputs and the primary activity of the enterprise.

4. Scope of the classification

The scope of the classification is determined by the units for the variable described by the classification, for example jobs of the labour force, activities of the economy, the resident population or a particular set of events, diseases or deaths etc, or a predetermined subset of those.

The scope must also identify consistencies with accepted international standards or practices. This is to facilitate international comparability and to enable use of international concepts and principles where applicable to the national context

5. Statistical Unit

Statistical units are the units of observation or measurement for which data are collected or derived. The statistical units for the primary application of the classification have to be clearly identified.

The statistical unit must be suitable for data compilation and aggregation, and enable consistency across entities and be internationally comparable. Statistical units can be defined following many criteria and consist of an individual, household, activity, enterprise or product etc.

The statistical unit may or may not be the same as the classification unit as the classification could be applied to different units, even though it was designed for a specific purpose.

6. Structure of the classification

The classification structure may either be flat (one level only) or hierarchical (more than one level).

7. Classification Levels

A classification structure is composed of one or several levels. In a hierarchical classification the items of each level but the highest (most aggregated) level are aggregated to the nearest higher level. A flat classification has only one level

Each level in the classification should only define the number of categories which are sufficiently detailed to distinguish the units being classified. For hierarchic classifications the different levels need to correspond to the different needs of the users to make consistent detailed or more aggregate distinctions for the variable being measured. The structure should reflect exhaustive coverage of the categories needed to meet the scope of the classification.

When preparing statistics on the basis of the categories defined by a classification, compromises may need to be made for reasons of statistical feasibility (i.e. the distinctions made possible by the data collection and coding process), statistical balance, compatibility with other statistical concepts and classifications, or comparability with international standards.

8. Classification categories

The names chosen for the categories must be precise and accurate, and reflect relevance and facilitate user understanding. The titles should clearly articulate, if possible, the scope of the category.

The categories must be mutually exclusive and the classification itself should be exhaustive in coverage, or as exhaustive as is required.

9. Format of Classification Codes

The code structure for the classification must be easy to understand, and consistent. For hierarchical classifications it must present a logical and sequential pattern which reflects the number of levels required.

The simplest code structures are based on numeric sequences. However it is important to define whether the classification structure requires any special code conventions, and the notes to the classification should detail the rationale for the code structure i.e. if it is alphanumeric, numeric or alpha and the reasons for choosing this pattern.

The need for supplementary codes for operational purposes or residual categories may need to be detailed. For example a classification code structure may need to incorporate categories to enable coding to 'not further defined' or 'not elsewhere classified' categories.

10. Statistical balance

It is sometimes seen as an advantage that a classification to be used mainly for producing and disseminating statistics should not have categories at the same level in its hierarchy which are too disparate in their size or data. Where such 'statistical balance' is desired then the criteria being used to make the relevant distinctions needs to be documented. Statistics presented for categories which are balanced usually minimises large variations in standard errors and the suppression of cells in statistical tables, especially when preparing statistics from sample surveys.

In an international context it is important to recognise that one classification can produce balanced data for one country and unbalanced for another.

Statistical balance is not usually regarded as a criteria for sub-dividing categories below the broadest level of a classification.

11. Consultation process

Full consultation with national users of a related standard national classification as well as with statistical offices, and relevant subject matter and classification experts must be undertaken to ensure that the classification meets the needs of both the national and international community.

12. Testing of the classification

The classification has to have been widely discussed and tested (by different national statistical offices and users) to ensure suitability for use in developed and developing countries.

13. Correspondence

In order for an international classification to be accepted as a member of the International Family of Classifications, a list of relevant correspondences should be provided.

The mapping of categories between old and new versions of the same classification and the mitigation of time-series issues for users of statistics are important when introducing a new or revised classification.

With international standard classifications the listing of appropriate correspondences should be considered and endorsed by the UN Expert Group.

14. Implementation Plans

The custodian of a new or revised classification must present a clear and timetabled implementation plan or strategy. This preparation of this strategy should be initiated at the start of the development process for the new or revised classification. The implementation plan should ensure that:

- Stakeholders will participate in a manner that will give them confidence that the classification may provide the relevant distinctions and can be used effectively and reliably.
- The users of statistics based on the classification for description and analysis should trust that the statistics produced by the classification will be relevant and reliable;
- Transition to a new classification is well coordinated and communicated;
- The classification is implemented in a coordinated way without impacting on data quality;
- There is material that supports the use of the classification freely available to all users.

The Implementation Plan for an international standard classification should also detail how the classification is to be:

- Implemented as an international standard classification;
- Implemented in a timely and quality manner using robust methods;
- Implemented by synchronising work with other custodians of international standard classifications and by leveraging off other international strategic initiatives;
- Implemented using common approaches;
- Implemented with agreement by a range of countries (as appropriate), with their plans for adapting the international classification for national use.

The process of decision should be well documented in order to be transparent.

15. Maintenance Schedule

There must be a clearly articulated maintenance schedule established for the classification outlining the procedures for updating and a timeframe for reviews and/or the scope of such reviews (i.e. minor or major). The maintenance schedule for an international classification should be created by the custodian in consultation with national and international users and statistical offices, the Expert Group on International Statistical Classifications, UN Statistics Division and subject to direction from the UN Statistical Commission or governing bodies of the relevant international agencies, based on the intended scope of the review.

Timings for reviews of international classifications will depend on many circumstances. Often reviews are timed to coincide with the international round of population censuses (ten yearly cycle).

The timetable for maintenance and/or review of international classifications should be communicated well in advance to international users to enable forward planning by them and by national custodians for the corresponding national classifications to ensure that all appropriate changes are accounted for. This would include plans for modifications to affected IT systems, updating or backcasting of business registers; updating coding tools

and/or dual coding options, survey weighting changes, sample frame size changes and time-series management.

The maintenance schedule for an international classification must be endorsed by the UN Expert Group and/or approved by the UN Statistical Commission.

16. *Dissemination*

The classification and supporting guides, coding tools etc must be freely available either from a centralised website or from the custodians own website, if appropriate. Formats for dissemination should be discussed with relevant parties at the beginning of the development cycle for the classification.