Nomenclature of normative work

of the Statistical Commission: 2008-2021

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Prepared by the Secretariat[1]

I. Introduction

1.   This background document under agenda item 3(c) working methods of the Statistical Commission provides a description of an initial scoping exercise on the normative work of the Commission in the period from 2008 to 2021 carried out by the Statistics Division of the Department of Economic and Social Affairs, in support of the United Nations Statistical Commission. The analysis stems from a request by Member states to understand the nomenclature and processes related to normative work. It contains a description of a scoping exercise of categorization of different types of the Commission's normative work and includes an initial examination of the processes leading to a decision by the Commission. The purpose of the exercise was to highlight the commonalities between the documentation and the processes that lead to the development of materials and the preparations for a decision by the Commission.

2.   The scoping exercise included 50 publications discussed by the United Nations Statistical Commission between 2008 and 2021 (Annex A). Each publication has been placed one of the following categories of normative work: (a) classification, (b) framework, (c) guidelines, (d) handbook, (e) manual, (f) principles and recommendations, and (g) standards. Definitions of each of the seven primary categories are provided in Annex B.

3.   An initial proposal for a common road map was developed to highlight the steps in the process for the adoption or endorsement of new or revised documents respectively, and the additional considerations that could be added to the baseline process.

4.   The next steps in that work will be to further explore the road maps to adoption or endorsement in order to be able to differentiate the nuances between each type of normative work.

II. Methodology

2.1 Data Gathering

5.   To gather a list of normative work for the analysis, word searches on the terms *(adopt, endorse, agree)* were carried in the Statistical Commission Decisions page of the UNSD website (https://unstats.un.org/unsd/statcom/decisions/). The searches resulted in a list of thirty-nine of fifty documents examined in this scoping exercise. This list was then circulated within UNSD to verify completeness. An additional eleven publications were added to the final list as a result of comments made during the verification process. It is possible that there could be additional

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[1] Based on research by Ms. Ali Dunn.

publications discussed by the Statistical Commission within the timeframe of interest that are not included in this scoping exercise.

Data elements of each publication were manually extracted from the UNSD website and recorded in excel. A data dictionary was created to effectively catalog and communicate the structure and content of data elements, within the context of the scoping exercise (Annex C).

In addition to manual data collection, web scraping techniques were applied to collect text data from thirty-four of the fifty publications. This data was used to support a content analysis in Python. The remaining fifteen publications were not included in the content analysis for one of two reasons: either the publication was not available in a format suitable for the analysis or there were not enough publications available per category, such as for concepts and definitions, standards, supplements, and technical reports, to support a meaningful analysis.
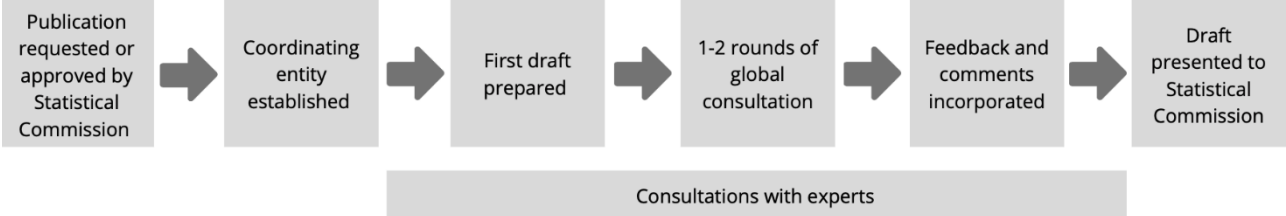

2.2 Common Roadmap to Adoption/Endorsement

In order to better understand common processes to adoption/endorsement, the list of publications was split into two categories: revisions and non-revisions. Of the fifty publications included in the scoping exercise, thirty (60 percent) are new documents (non-revisions) and twenty (40 percent) are a revision of an existing document. The limited scope of fifty publications meant a narrower analysis and comparison of processes to adoption/endorsement by category was not possible due to insufficient data. It might be useful to conduct a comparison at a more micro level to better understand the nuances of the processes.

Figure 1 illustrates a common roadmap to adoption/endorsement for a new publication as well as additional considerations that may be included in the process.

Figure 1: Common roadmap to adoption (non-revision)

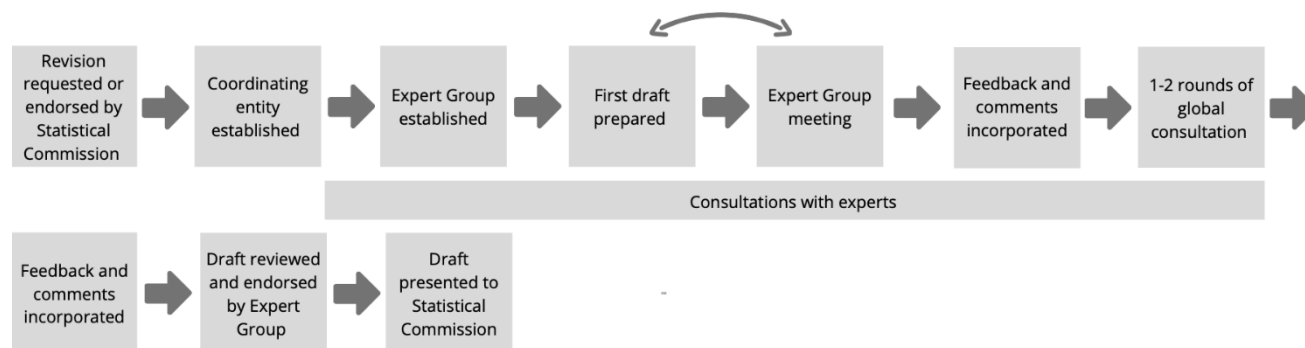**Common Roadmap to Adoption/Endorsement (Non-Revision)**

Additional Considerations
- Workshops
- Technical meetings and discussions
- There may be multiple rounds of drafts circulated for further comment and suggestion
- Draft discussed at one or multiple Expert Group meeting(s) / meeting of experts
- Hiring of consultant(s)
- Pilot tests
- Draft posted to UNSD website for worldwide comment

Figure 2 illustrates a common roadmap to adoption/endorsement for revised documents as well as additional considerations that may be included in the process.

Figure 2: Common roadmap to adoption (revision)

Common Roadmap to Adoption/Endorsement (Revision)

Additional Considerations
- Workshops
- There may be multiple rounds of drafts circulated for further comment and suggestion
- Hiring of consultant(s)
- Pilot tests

2.3 Adopt, Endorse, Agree

In order to better understand the use of the terms *adopt*, *endorse*, and *agree,* further word searches were performed on the Statistical Commission Decisions page of the UNSD website (https://unstats.un.org/unsd/statcom/decisions/).

A search of the word *adopt* resulted in 71 matches, meaning *adopt* appears 71 times on the Decisions page. Each of these 71 instances refers to the adoption of normative work (i.e. framework, handbook, guidelines, etc.). That is, the term *adopt* is reserved to describe the formal acceptance of a piece of normative work by the Commission. For example, "[the Commission] adopted the International Recommendations for Tourism Statistics 2008...".

On the other hand, the term *endorse* is more flexible in its use. A search for the word *endorse* led to 144 matches. As illustrated in Table 1, the term *endorse* is most commonly used in reference to endorsing an initiative or programme of work, or to endorsing recommendations or proposals. Endorsing normative work, however, is the third most common use of the term. For example, in the sentence "[The Commission] endorsed the International Classification of Activities for Time-Use Statistics (ICATUS 2016) for use as an international statistical classification...", the word *endorse* is used the same context in which *adopt* is commonly used. It might be useful to further explore whether *endorse* has a different meaning than *adopt* in this context.

Table 1: Top five most common uses of the word endorse

Endorse		
Use	Count	Example(s)
Initiative/programme of work/work programme/action plan/pilot process/road map	26	• *"Endorsed the initiatives to improve the coordination of data production and monitoring..."* • *"Endorsed the programme of work of the Working Group..."*
Recommendations/proposals	16	• *"Endorsed the recommendations pertaining to the activities of the international plan of action"* • *"Endorsed the proposal to establish..."*
Normative work (i.e. framework, handbook, guidelines, international recommendations, international statistical standard, manual, international statistical classification)	15	• *"Endorsed the international recommendations on refugee statistics..."*
Undertaking of revision / revised document	14	• *"Endorsed the undertaking of a revision of..."* • *"Endorsed the fifth revision of the..."*
Establishment of Group (Expert Group, Working Group, Executive Board, City Group)	13	• *"Endorsed the establishment of an expert group on the revision and implementation..."*

A search for the word *agree* resulted in 165 matches. As demonstrated in Table 2, creating clean categories of use was challenging as the word *agree* is used quite broadly. Although the most common use of the word *agree* can only be categorized as "other", it is also commonly used to describe instances in which the Commission agrees with a proposal, an establishment of a group, a particular need, or recommendations.

The increasing trend in word count for *adopt* (71), *endorse* (144), and *agree (*165) reflects an increasingly broader use of terms. In the future, it may be helpful to clearly define each word and their intended use in the Commission's language.

Table 2: Top five most common uses of the word agree

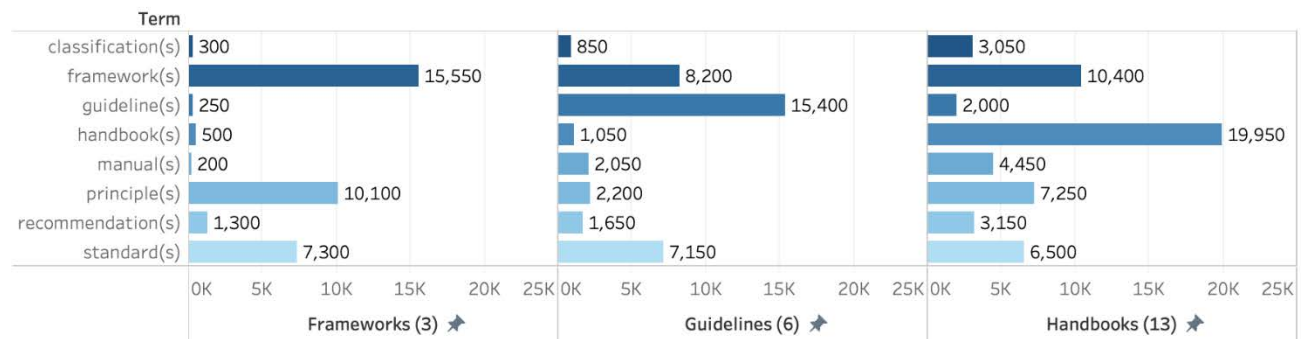| Agree		
Use	Count	Example(s)
Other	58	• *"Agreed that statistical capacity-building was the key step in improving..."*
With proposals	18	• *"Agreed with the proposal that..."*
With establishment of group (Task Force, Friends of Chair, Working Group, City Group, Technical Committee)	15	• *"Agreed to set up a task force on education statistics..."*
With needs	10	• *"Agreed with the need to collect and disseminate case studies..."* • *"Agreed that there is a need to understand the data needs of various stakeholders..."*
With recommendations	9	• *"Agreed with the recommendation that countries should adapt..."*

2.4 Content Analysis

Content analysis is a research tool used to determine the presence of certain words, themes, or concepts within some given qualitative data (i.e. text).[2] A content analysis was performed in Python to better understand how different types of the Commission's normative work are categorized.

Publications were first grouped into one of the seven categories of normative work[3]. Next, the first 50 pages of each publication were read into Python using Natural Language Processing techniques to create seven sets of text data, one for each of the seven categories.[4] The Natural Language Toolkit (NLTK) Python library was then used to build a frequency distribution of the above words of interest for each category. A frequency distribution records the number of times each word occurs within each set of text data (i.e. within each category). This is used to record the frequency of each word of interest within each category of normative work. By quantifying and visualizing the frequency of words of interest by category, we can gain valuable insights into how these words are being used within the Commission's language. For example, patterns and trends in the data, such as a high count of a certain word across categories, may suggest this word is poorly defined in the Commission's language.

A series of functions were defined to improve the quality of each set of text data by removing digits and punctuations, converting all words to lowercase, and removing stop words.[5] This data was then used to visualize count the frequency of each word of interest by category (Figure 3).
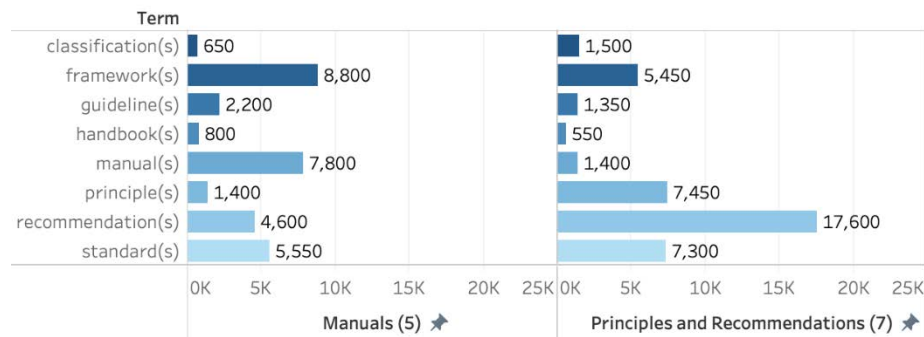
Figure 3: Frequency of words of interest by category

Term	Manuals (5)	Principles and Recommendations (7)
classification(s)	650	1,500
framework(s)	8,800	5,450
guideline(s)	2,200	1,350
handbook(s)	800	550
manual(s)	7,800	1,400
principle(s)	1,400	7,450
recommendation(s)	4,600	17,600
standard(s)	5,550	7,300

Findings drawn from the patterns and trend identified in Figure 3 are outlined by category below.

Classification: Among the fifty publications within the scope of this exercise, only three are categorized as a classification (Annex A). Two of the three classifications are not available in a format supported by the analysis. As a result, a visualization was not created for this category. However, the low count of the term within each of the five categories illustrated in Figure 3 suggests the term *classification* is relatively well-defined in the Commission's language.

Framework: As expected, *framework(s)* is the word with the highest count among publications categorized as a framework. The high count of the term *principle(s)* suggests frameworks may often be built upon, or provided as a supporting document to, set of principles. It's interesting to note the word *framework(s)* has a high count across each of the five categories illustrated in Figure 3. This suggests the term is frequently used in the general sense of the word, to describe a basic structure underlying a system or concept, rather than referring to a particular UN framework.

Guideline: As expected, *guideline(s)* is the word with the highest count among publications categorized as guidelines. The high count of the term *framework(s)* suggests the terms *guideline* and *framework* may be used interchangeably, or perhaps guidelines are often provided as a supporting document to implementing frameworks.

Handbook: As expected, *handbook(s)* is the word with the highest count among publications categorized as a handbook. The high count of the term *framework(s)* suggests handbooks may often be provided as a supporting document to frameworks. The frequency distribution for this category is more evenly distributed than the other four categories. This may be a reflection of the fact that handbooks are often created as supporting documents rather than stand-alone documents. In other words, the word *handbook* is more likely to be seen in reference to a framework, classification, or principle, whose contents it is intended to support, than other words of interest.

Manual: As expected, *manual(s)* is the word with the highest count among publications categorized as a manual. The high counts of the terms *framework(s)* and *recommendation(s)* suggest manuals often serve as supporting documents to frameworks and recommendations.

Principle and Recommendation: Recommendation(s) is the word with the highest count among publications within this category, followed by *principle(s)*. This is expected as there are more publications categorized as recommendations than principles or principles and recommendations in this category (Annex A).[6]

Standard [7]: Among the fifty publications within the scope of this exercise, only two are categorized as a standard (Annex A). As a result, a visualization was not created for this category. However, the high count of the term within each of the other five categories illustrated in Figure 3 suggests the term *standard(s)* is frequently used in the general sense of the word, to describe a level of quality or attainment, rather than referring to a particular UN standard.

3. Conclusion

Going forward, some additional areas to deepen the scoping exercise include providing clear definitions of normative terms to ensure work is being categorized appropriately. Clearly defining the term handbook, manual, etc. will help ensure publications are categorized appropriately in the future. Furthermore, examining the definitions and intended use of the words adopt, endorse, and agree and taking a pragmatic approach to determine which other terms may benefit from more precise definitions of use. And lastly, this initial scoping exercise shows that a deeper investigation of processes to adoption/endorsement is merited. Currently, this analysis is limited to the materials included in the acknowledgements and forewords of the publications, and further discussions with the teams responsible for coordinating each publication may help us gain a more in-depth understanding of these processes.

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[6] Publications categorized as *Recommendations*, *Principles*, and *Principles and Recommendations* were grouped into one category due to insufficient data of the latter two categories
[7] **Note:** Categorization of the System of Environmental-Economic Accounting (SEEA) will be revised, as chapters 1 to 7 of SEEA were adopted by the 52nd session of the Commission, under decision 52/108/(c).

Annex A

Publications Included in Scoping Exercise

Publication	Category
Central Product Classification, Version 2	Classification
International Standard Classification Occupations (ISCO-08)	Classification
International Classification of Activities for Time-Use Statistics (ICATUS 2016)	Classification
Framework for the Development of Environment Statistics	Framework
System of Environmental-Economic Accounting (SEEA) Ecosystem Accounting [8]	Framework/Standard
System of Environmental-Economic Accounting (SEEA) Central Framework	Framework
Global Statistical Geospatial Framework	Framework
Global indicator framework for the Sustainable Development Goals	Framework
International Merchandise Trade Statistics: Concepts and Definitions 2010	Concepts&Definition
Guidelines for Producing Statistics on Asset Ownership from a Gender Perspective	Guidelines
Guidelines on the use of electronic data collection technologies in population and housing censuses	Guidelines
Guidelines for Producing Statistics on Violence against Women: Statistical Surveys	Guidelines
Guidelines on Integrated Economic Statistics	Guidelines
Designing Household Survey Samples: Practical Guidelines	Guidelines
Guidelines on Statistical Business Registers	Guidelines
Handbook on the Management of Population and Housing Censuses, Rev. 2	Handbook
Handbook on Population and Housing Census Editing, Rev 2.	Handbook
Handbook on Civil Registration and Vital Statistics Systems: Management, Operation and Maintenance, Revision 1	Handbook
Handbook of National Accounting "Financial Production, Flows and Stocks in the System of National Accounts"	Handbook
Measuring the Economically Active in Population Censuses: A Handbook	Handbook
Handbook on Geospatial Infrastructure in Support of Census Activities	Handbook
Handbook on Governance Statistics	Handbook
Handbook on Management and Organization of National Statistical Systems	Handbook
Handbook on Accounting for Global Value Chains	Handbook
Handbook on Data Template and Metadata for Short-Term Statistics	Handbook
Handbook on Supply and Use Tables and Input-Output Tables with Extensions and Applications	Handbook
Satellite Account on Nonprofit and Related Institutions and Volunteer Work	Handbook
Handbook on Cyclical Composite Indicators	Handbook
Handbook on Rapid Estimates	Handbook
Handbook on Economic Tendency Surveys	Handbook
Integrating a gender perspective into statistics	Manual
International Merchandise Trade Statistics: Compilers Manual Rev. 1	Manual
Manual on Statistics of International Trade in Services 2010 (MSITS 2010)	Manual
United Nations National Quality Assurance Frameworks Manual for Official Statistics (UN NQAF Manual)	Manual
Consumer Price Index Manual	Manual

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[8] **Note:** Categorization of the System of Environmental-Economic Accounting (SEEA) will be revised, as chapters 1 to 7 of SEEA were adopted by the 52nd session of the Commission, under decision 52/108/(c).

Manual on Statistics of International Trade in Services Compiler's Guide	Manual
Energy Statistics Compilers Manual	Manual
Revised preamble of the Fundamental Principles of Official Statistics	Principles
Principles and Recommendations for Population and Housing Censuses, Rev. 3	Principles and Recommendations
Principles and Recommendations for a Vital Statistics System Revision 3	Principles and Recommendations
Expert Group on Refugee and Internally Displaced Persons Statistics	Recommendations
International Recommendations for Water Statistics	Recommendations
International Recommendations for Industrial Statistics 2008	Recommendations
International Recommendations for Tourism Statistics 2008	Recommendations
International Recommendations for Distributive Trade Statistics 2008	Recommendations
International Recommendations for Energy Statistics (IRES)	Recommendations
International Standard Industrial Classification of All Economic Activities (ISIC) Rev. 4	Standard
System of National Accounts 2008	Standard
International Merchandise Trade Statistics: Supplement to the Compilers Manual	Supplement
Technical Report on Statistics of Internally Displaced Persons	Technical report

Annex B

Dictionary Definitions of Seven Primary Categories, as defined by Oxford Languages

Category	Definition
Classification	a category into which something is put based on shared qualities or characteristics
Framework	a basic structure underlying a system, concept, or text
Guidelines	a general rules, principles, or pieces of advice
Handbook	a type of reference work, or other collection of instructions, that is intended to provide ready reference
Manual	A book of instructions
Principles and Recommendations	N/A
Standard	a level of quality or attainment / used or accepted as normal or average

Annex C

Data Dictionary

Variable Name	Meaning / Purpose
Publication	Title of publication
Topic	Topic of publication
Year	Year of publication
Category	Categorization of publication based on naming conventions
Purpose	Purpose of publication
Catalyzing entity	Entity responsible for initiating the production of the publication

Coordinating entity	Entity responsible for carrying out the publication
Diverse collaboration	Whether or not a diverse group of countries were involved in the *development process*
Developing partners	Who was consulted to *develop* the publication
Global consultation	Whether or not a diverse group of countries were involved in the *review process*
Contributors	Who was consulted to *review* the publication
Revision	Whether or not the publication is a revision of an existing publication
Existing documents	Documents upon which the publication in question was built or based
Requested by commission	Whether or not the publication was requested by the United Nations Statistical Commission
Adopted by commission	Whether or not the publication was adopted by the United Nations Statistical Commission
Comments	Additional comments
Source	Publication URL