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**Economic Commission for Europe****Conference of European Statisticians****Sixty-ninth plenary session**

Geneva, 23-25 June 2021

Item 7 (b) of the provisional agenda

**Reports, guidelines and recommendations prepared under the umbrella of the Conference:  
Waste statistics framework****Results of the consultation on the *Waste statistics framework*****Prepared by the Secretariat***Summary*

This note summarizes the comments by members of the Conference of European Statisticians on the *Waste statistics framework* (ECE/CES/2021/4). The Secretariat carried out an electronic consultation in March – April 2021.

A total of 41 replies to the consultation were received. The responding countries and organizations supported the endorsement of the Framework, subject to the amendments resulting from the consultation which are explained in this note.

In view of the support received, the Conference is invited to endorse the *Waste statistics framework*, subject to amendments presented in this note. The Conference is also invited to express views on possible further work for developing practical guidance for the implementation of the Framework.



## I. Introduction

1. The present document summarizes the comments by members of the Conference of European Statisticians (CES) on the *Waste statistics framework*.
2. The Framework was prepared by a Task Force (chaired by the Netherlands and later by Bosnia-Herzegovina, Canada and the United Nations University) established by the Bureau of the Conference of European Statisticians in February 2017. **The main aim of the Task Force was to develop a conceptual framework on waste statistics and draft a glossary of the most important terms and definitions in waste statistics.**
3. The Task Force was also asked to **identify areas of waste statistics where further conceptual and methodological work could be undertaken to support the implementation of the framework.** This may include activities such as harmonization and improvement of existing waste classifications, development of methodologies to fill important information gaps (e.g. informal or illegal waste collection and trade, food waste etc.), drafting of implementation guidelines, etc.
4. In February 2021, the CES Bureau reviewed the Framework and the glossary, and requested the UNECE secretariat to send it for electronic consultation to all countries and organizations who participate in the work of CES. The consultation was carried out in March-April 2021.
5. Section II summarises the outcome of the consultation. Section III provides a brief overview of the general comments received. Section IV summarises the comments and amendments on specific sections of the Framework, and section V presents a proposal to the Conference.

## II. Summary of feedback

6. The following 38 countries and 3 international organizations responded to the consultation: Albania, Armenia, Australia, Belarus, Belgium, Brazil, Bulgaria, Canada, Chile, Colombia, Croatia, Denmark, Estonia, France, Georgia, Germany, Greece, Hungary, Japan, Latvia, Liechtenstein, Lithuania, Malta, Mexico, Netherlands, Philippines, Poland, Portugal, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, Statistical Office of the European Union (Eurostat), the Organisation for Economic Co-operation and Development (OECD) and the United Nations Statistics Division (UNSD).
7. **The responding countries and organizations considered the Framework ready for endorsement, subject to incorporation of the comments made in the consultation.**
8. Many countries mentioned that the Framework was very relevant and timely, and highlighted the importance of improving waste statistics to meet policy demands, in particular related to circular economy. **Countries welcomed the expansion of the scope of the conceptual framework to integrate informal and illegal waste-related activities as well as flows of waste-related products and wasted goods.**
9. Countries provided suggestions for improving the clarity and precision of the text to further strengthen the document. The next Sections summarise the comments and how these will be taken into account in the final version of the Framework.
10. The responses also included editorial and formatting corrections (e.g. by Australia, the Netherlands, Eurostat). These are not presented here but will be taken into account in finalizing the document.
11. The Task Force thanks all countries and organizations that provided feedback.

## III. General comments

12. Many countries expressed their appreciation for the Framework and the glossary. For example:

(a) Belarus: It is a very useful guide, clearly explaining the complex nature of waste statistics production. It definitely has a high applied value.

(b) Belgium: Interesting document with a good summary of current practices in waste statistics and some necessary recommendations to broaden the scope of waste statistics to stay relevant in a world where policy makers push towards a more circular economy;

(c) Colombia: We consider that the document is both timely and relevant. We would like to highlight the importance of the recommendations regarding the inclusion of waste management in the informal and/or illegal economy, as well as the alignment of the concepts with the circular economy;

(d) Croatia: The Waste Statistics Framework will be very useful tool which will contribute in solving problem of incomparability of statistics between countries;

(e) France: We agree with the necessity to enlarge the current framework to better measure the circular economy;

(f) Germany: The document gives a good overview of the relevant aspects for the quantification of waste and of activities and phenomena that are related to waste to meet users' information needs related to the circular economy and other waste-related policy areas;

(g) Netherlands: The framework seems extremely relevant to expand the scope of waste statistics to meet the demands of arising policy themes such as the circular economy;

(h) Serbia: The document is excellent;

(i) Ukraine: The document has achieved the goal for which it was planned.

(k) United Kingdom: The Framework is very comprehensive and useful in bringing together a number of concepts and issues in one place.

13. Many countries (Australia, Belgium, Chile, Croatia, Germany, Malta, Philippines, Portugal, Slovakia, Slovenia, Switzerland, Ukraine) emphasised the challenges in measuring new elements of the framework, such as informal and illegal activities. At the same time, inclusion of these elements was appreciated as it can account for a considerable share in some countries (Chile, Slovenia, Switzerland). Countries noted that clear guidance and methodological developments, as well as time and resources will be needed for practical implementation of the Framework. The need for leadership of international organizations and the role of international collaboration in this work was emphasised.

14. Several EU countries, including Germany, Hungary and Sweden, as well as Turkey suggested to refer more to the existing EU legal obligations, and to mention the new annual waste reporting in the EU, including on oil and waste oils (EU 2019/1004), food waste (EU 2019/1597), municipal waste (EU 2019/1004) and packaging waste (EU 2019/665).

#### **Action by the Task Force:**

15. Reference to new EU waste reporting and other EU legislation will be made throughout document where appropriate.

## **IV. Comments and amendments on specific sections of the document**

### **A. Chapter 1. Introduction**

16. Germany asked for more clarification at the beginning of the document that data collection/production modes may vary with the various parts of the conceptual framework. Some data may stem from traditional waste statistics, others rather from an accounting framework or a modelling procedure, and some elements go beyond waste statistics and environmental-economic accounting (e.g. secondary raw materials). It would be useful to prioritise the different aspects, including informal and illegal activities, to make clear that not all requirements of this framework can be fulfilled equally and immediately.

17. Spain suggested to slightly revise para. 13 to take into account the need for new rules to measure the attainment of European waste management targets.

**Action by the Task Force:**

18. A paragraph will be added in the introduction referring to the variety of data collection and data production modes, as suggested by Germany. Furthermore, this will also be mentioned in section 5.1.3 (Measurement considerations for waste statistics).

19. As suggested by Spain, the last sentence of paragraph 13 will be revised as follows:

*“Thus waste statistics produced by countries of the European Union are harmonised to a certain extent, though improvements have still to be achieved, for example through the implementation of the new rules on the calculation of the attainment of European waste management targets.”*

## **B. Chapter 2. Waste statistics – current status and emerging needs**

20. Slovenia proposed to add information about weaknesses of existing classifications used in waste statistics, for example the lack of comparable classifications for secondary raw materials which are linked with the waste classification. Slovenia also mentioned the dilemma of liquid waste and certain biomaterials (e.g. sewage sludge) to be measured in dry state and/or liquid state.

21. France pointed out that several classifications used in waste statistics do not correspond to each other (such as Basel convention and EWC-Stat). The customs codes (NC8) do not allow to get information which wastes are imported or exported. For example, for plastics, the codes do not make a difference between waste materials (such as plastic bottles) or raw materials intended for recycling (such as pellets). Currently only the Basel Convention allows to obtain information on what happens to waste that is exported or imported, concerning certain hazardous wastes. It would be important to know what happens to non-hazardous waste such as paper or plastic as well.

22. Netherlands suggested to rephrase para. 59 as it could be misunderstood to create an impression that the circular economy is based on using waste as a resource, instead of aiming to prevent waste.

**Action by the Task Force:**

23. The main challenges related to measuring liquid waste and certain biomaterials (e.g. sewage sludge) in dry weight or wet weight will be noted in Section 2.1.1.

24. A paragraph mentioning the lack of comparable classifications for secondary raw materials which are linked with the waste classification will be added in Section 2.1.6;

25. The last sentence of para 59 will be rephrased to *“In contrast, the circular economy approach aims to prevent and reduce waste generation and circulates wasted materials back into the economic system into high-value applications (in contrast to downcycling).”*

## **C. Chapter 3. Main terms and definitions**

26. Turkey proposed to add the term „municipal waste”. Denmark was asking for a detailed description of municipal waste, including examples what this waste stream contains. This would help to get a better understanding of what municipal waste consists of and encourage more countries to include the needed data. Denmark also noted that understanding of the definitions can be different, and it would be useful to publish in an online working space the waste definitions used in countries aiming to reach a common understanding.

27. Para. 79d in section 3.1.1 (Conceptual definition of “waste”): Spain did not consider home composting as a good example of a material that is usually excluded from waste statistics, because it is conceptually included in the EU Waste Framework Directive in its article 22 on bio waste. Spain also proposed to delete the word ‘recycled’ from the first sentence in para 79d.

28. Para. 94 in section 3.2.1.1 (term “waste collection”): France suggested to skip the words “for the purposes of transport” from the definition “waste collection means the gathering of waste, including the preliminary sorting and preliminary storage of waste for the purposes of transport”.

29. Section 3.2.1 (Conceptual definition of “waste management”): Switzerland proposed to refer to the links with statistical classifications on economic activities (ISIC/NACE).

30. Para. 100 (term “waste treatment”): Ukraine asked for clarification of the term “backfilling”.

31. Para 101 (discussion of terms “disposal” and “recovery”): Eurostat emphasized the importance of explaining the difference between “preparation for reuse” and “reuse”. “Reuse” is not considered a recovery or recycling operation in the European legislation, but “preparation for reuse” is. In that regard the joint OECD/Eurostat Questionnaire only contains “preparation for reuse”.

32. Para 113: France noted that it is not clear whether the reuse for recycling at the place of generation of waste is excluded or not.

33. Australia asked to make it more clear which definitions are endorsed by the Framework and make reference to them in the Glossary. Otherwise the reader may be confused between the different definitions.

#### **Action by the Task Force:**

34. Following the proposal by Australia, only definitions endorsed by the Framework will be highlighted (printed in green colour).

35. The term “municipal waste” will be added.

36. Para. 79d: Reference to EU Waste Framework Directive in its Article 22 on bio waste will be made concerning the example given on home composting.

37. Para. 94: The Task Force discussed the suggestion to delete “for the purposes of transport” from the proposed definition of “waste collection”. It was decided not to change the definition to maintain alignment with the EU Waste Framework.

38. Section 3.2.1 (Conceptual definition of “waste management”): a reference to the definition used in ISIC will be added.

39. The term “backfilling” will be explained in Section 3.2.1.3 (under the term “waste treatment”).

40. Para 101: As proposed by Eurostat the paragraph will be revised to describe the difference between “preparation for reuse” and “reuse” as used in the EU legislation. Reference to Directive 2008/98 EC (Article 3) and the joint OECD/Eurostat Questionnaire will be made.

## **D. Chapter 4. Waste statistics framework**

41. Colombia proposed to make a reference to the Generic Statistical Business Process Model (GSBPM) to achieve high quality waste statistics.

42. Netherlands raised the question which releases to the environment should be captured within the waste statistics. As a large part of the litter is eventually collected it would result in capturing this waste twice.

43. Concerning the section on classifications – type of waste (section 4.2.9), Australia asked for clearer guidance on what classification should be used. Switzerland noted that statistical classifications on economic activities (ISIC/NACE) should not be mentioned here, but that a reference to CPC/CPA is missing. Turkey made suggestions concerning the use and review of some classifications (e.g. to recommend use of the EU Waste Statistics Regulation for both hazardous and non-hazardous waste, and to revise the hazardous waste codes of the Basel Convention accordingly).

44. Switzerland suggested to separate recycling and backfilling in the recommendation in section 4.2.10 (Classifications -treatment of waste).

45. Spain noted that in para 153 (section 4.1.6) the development of methodologies to measure the expanded scope of waste statistics (informal and illegal activities, flows of waste related goods and products) must be carried out with caution as it may lead to a lack of comparability between countries data.

**Action by the Task Force:**

46. Section 4.1.4 (Component “releases to the environment”): a paragraph will be added discussing possible double counting of waste disposed in the environment and eventually collected.

47. Section 4.2.8 (Criteria for high-quality international waste statistics): Reference to the Generic Statistical Business Process Model (GSBPM) will be added.

48. Section 4.2.9 (Classifications – type of waste):

(a) In para. 207 the reference to ISIC will be replaced by a reference to CPC/CPA;

(b) A paragraph will be added recalling the need for a globally agreed waste classification;

(c) Text will be added recommending review of some of the existing classifications, e.g. with the goal to better align hazardous waste codes of the Basel Convention with those of the EU Waste Statistics Regulation.

(d) A paragraph will be added, referring to the general application of EU obligations on reporting for EU countries, as well as the suggestion that countries can refer to the European Waste Classification in absence of a global classification.

49. Section 4.2.10 (Classifications – treatment of waste): A distinction will be made between “Recovery – recycling” and “Recovery – backfilling”.

## **E. Chapter 5. Recommendations for improving waste statistics at national and international level**

50. Countries agreed with the recommendations and some of them explicitly noted the usefulness and relevance of the recommendations (Albania, Belgium, Chile, Greece, Philippines, Serbia, Slovenia).

51. Netherlands and Spain asked to be more specific in the Recommendations, and many countries asked for guidance in their implementation. Australia asked for example tables of how to present collected data in line with the framework, and guidance on when the measurements should be taken in each stage of the waste cycle. Bulgaria and Chile emphasised the importance of international work (exchange of experience, working groups, developing guidelines) and the role of international organisations in improving waste statistics. Turkey asked for guidance from international organizations on new, emerging waste categories, such as food waste, electronic waste, plastic waste, etc.

52. In section 5.1.1 (Review existing waste statistics and develop a national work plan on waste statistics) Portugal proposed to mention that resources are limited, and an effort must be made towards greater coverage and flexibility. Portugal also suggested to mention the motto “collect once and use multiple times”.

53. Concerning section 5.1.2 (Consider widening the scope of national waste statistics) Portugal proposed to encourage access to new data sources and collaboration with new data providers.

54. Section 5.1.3 (Measurement considerations for waste statistics):

(a) Australia provided comments on the suggestion to include monetary estimates;

(b) Portugal proposed to rephrase the recommendation of using nationally appropriate definitions and classifications of informal and illegal activities in a way that it encourages international harmonisation;

(c) Colombia, Croatia, Malta, Poland, Slovakia, Spain, Switzerland and Ukraine highlighted the difficulties in obtaining information on informal units and in assessing the extent of illegal waste-related activities. Poland proposed to continue the work of the Task Force to develop guidance for that.

55. Section 5.2.3 (Make reference to the waste statistics framework in existing data collections, frameworks and indicator methodologies), para. 229: Switzerland suggested that the international classifications (HS, ISIC, etc.) and the waste statistics framework should be aligned.

56. Chile considered the recommendation to develop a national work plan very pertinent. Colombia and Croatia noted the challenge of improving the cooperation arrangements between different agencies involved in waste statistics within countries.

#### **Action by the Task Force:**

57. One of the tasks of the Task Force was to identify areas of waste statistics where further work could be undertaken to support the implementation of the framework, including harmonization and improvement of existing waste classifications, development of methodologies to fill information gaps (e.g. informal or illegal waste collection and trade, food waste etc.), and drafting of implementation guidelines, etc. These are spelled out in Section 6 ‘Issues for further research’.

58. Section 5.1.1 (Review existing waste statistics and develop a national work plan on waste statistics): The motto “collect once and use multiple times” will be mentioned as means to increase work efficiency as well as coherence and consistency of data.

59. Section 5.1.2 (Consider widening the scope of national waste statistics): Text will be added to encourage and recommend to access new data sources and collaborate with new data providers.

60. Section 5.1.3 (Measurement considerations for waste statistics):

(a) Text will be added that data collection/production modes may vary with the various parts of the conceptual framework;

(b) The text related to reporting waste in monetary units will be revised to take into account that the generator of the waste materials may perceive them to have zero value. It is only after mass collection, sorting and the identification of a future use that these materials take on a value and are no longer considered waste;

(c) The recommendation on using nationally appropriate definitions and classifications of informal and illegal activities will be rephrased to encourage international harmonisation, as proposed by Portugal. This is also in response of comments of several other countries on the difficulties in obtaining information on informal units and assessing the extent of illegal waste-related activities.

61. Section 5.2.3 (Make reference to the waste statistics framework in existing data collections, frameworks and indicator methodologies) para. 229: Text will be added on the need to align international classifications (HS, ISIC, etc.) and the waste statistics framework.

## **F. Chapter 6. Issues for further research**

62. Many countries underlined the need for further work and support by international organizations to develop waste statistics (including Bulgaria, Chile, Colombia, Croatia, Malta).

63. Poland asked to continue the work to constantly update the recommendations and work on definitions and tools for the reporting of illegal waste-related activities.

64. Several countries pointed to the need for further work on improving classifications used in waste statistics. France underlined that it would be very important to establish correspondence between the codes of the Basel Convention and the European Waste Catalogue. France also noted that customs codes do not allow to measure which non-hazardous wastes are imported or exported. Lithuania emphasized the importance of developing appropriate waste statistics classifications and suggested to review the European Waste Catalogue. Slovenia highlighted the need to update the existing waste classifications with additional and new needs for monitoring individual waste streams, such as food waste, packaging waste, and with the types of waste associated with the use of new materials.

**Action by the Task Force:**

65. The important role of international collaboration and international organizations in taking forward this work will be further emphasised.

66. The proposal of Poland to extend the work has already been partially implemented with the new CES Task Force on Measuring Circular Economy. However, expert group(s) for developing practical guidance on measuring informal and illegal waste-related activities still have to be identified or be established.

67. The text will be updated to emphasize the importance of reviewing existing classifications, as suggested by several respondents.

## **V. Proposal to the Conference**

68. The Conference is invited to endorse the *Waste statistics framework*, subject to incorporation of the amendments by the Task Force listed above.

69. The Conference is also invited to express views on possible further work for developing practical guidance for the implementation of the Framework.

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