

Cover Note for “The UNECE initial of set climate change indicators: the issue of dual measurement”

1. Introduction

In April 2014, the Conference of European Statisticians (CES) endorsed the [CES Recommendations on climate change-related statistics](#) targeted to national statistical systems. The Conference further recommended that the *UNECE Task Force on a Set of core Climate Change related Statistics* develop a set of core¹ climate change-related statistics and indicators which should be internationally comparable and paint the picture of the main phenomena of climate change. The Conference also emphasized that the new indicators should be derived from the System of Environmental-Economic Accounting Central Framework (SEEA-CF) to the extent possible, so as to make optimal use of the SEEA and other existing data sources, such as the UN Framework for the Development of Environment Statistics (FDES).

2. Work achieved so far

In recognition that both the SEEA-CF and FDES provided important starting points for the development of core climate change indicators, the Task Force has explored which of the proposed indicators can be based on these frameworks. The UN Sustainable Development Goals (SDGs), the Sendai Framework on Disaster Risk Reduction (Sendai Framework) and the requirements under the United Nations Framework Convention on Climate Change (UNFCCC), were also stated as important reference frameworks².

The 39 indicators chosen focus on environmental, social and economic statistics that measure the following five climate change-related areas: emissions, drivers, impacts, mitigation and adaptation. The selection of indicators was based on a procedure that takes into consideration the relevance to climate change policy, methodological soundness and data availability³. Among the methodological choices taken during the selection procedure, one is particularly relevant for the UNCEEA and relates to the so called *dual indicators*.

While the Task Force recognized the derivation of the indicators from the SEEA as a first choice, the Task Force also recognized that many data sources on GHG emissions are consistent with the IPCC guidelines, which follow the territory principle and are reported under the UNFCCC. In addition, the activity classification used by GHG inventories is not compatible with the International Standard Industrial Classification of All Economic Activities (ISIC), which is used in the SEEA. Thus, although GHG inventories

¹ Considering the final number of selected indicators (39) and following the terminology used in other indicator frameworks (such as the OECD Environmental Indicators, OECD, 2003), the term ‘core climate change-related indicators’ was used for ‘key’ climate change indicators.

² For detailed information see: <https://www.unece.org/statistics/networks-of-experts/task-force-on-a-set-of-key-climate-change-related-statistics-using-seea.html>

³ For details on the methodology, see the UNCEEA background paper: https://seea.un.org/sites/seea.un.org/files/unceea_2018_background_paper_on_dual_cc_indicators_submitted.pdf; or the full report: https://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/2016/mtg/19-Report_on_climate_indicators_final.pdf

provide important data sources on GHG emissions, they are not easily integrated with economic data for analyses. More generally, the choice between the residence principle and the territory principle is not straightforward for many indicators related to air emissions and energy.

Taking this into consideration, the Task Force decided to select energy and air emissions indicators based on the information need rather than the underlying data sets. As climate change-related information needs can refer to both GHG emissions on the national territory and emissions of its resident entities, the Task Force adopted a dual approach: *for all indicators that can be derived also from other sources than SEEA, a dual measurement should be foreseen in the short term*. As there is an ongoing process to align the relevant SDG indicators with the SEEA, this short-term approach is still consistent with the Task Force's mandate to develop core indicators derived from the SEEA. All in all, 14 indicators on energy and GHGs were identified as potentially dual indicators.

The 2017 pilot testing of the core indicators highlighted that the dual indicators needed further clarification. Extensive discussion within the Task Force in 2018 led to a number of preliminary conclusions. Overall, the Task Force concluded that the SEEA approach is to be prioritized, as it entirely follows statistical principles and allows multiple ways of data integration and analysis. However, some indicators might be defined according to the territory approach only.⁴ For all other indicators, countries are encouraged to develop their national sets of indicators following the SEEA approach, and to use other existing data sets (i.e. GHG inventories and energy balances) for the calculation of proxy indicators as long as the underlying SEEA data is not available.

According to the work plan, the Task Force is currently working primarily to revise and complete metadata sheets of indicators. Interim results will be presented at the Expert Forum for producers and users of climate change-related statistics, that will take place in Geneva, 2-4 October 2018.

3. Questions to UNCEEA

1. Do you agree with the general approach regarding “dual indicators” as proposed in this paper? In particular, what is your opinion regarding the role of indicators derived from GHG inventories?
2. Do you have specific comments on some of the indicators?
3. How can we better coordinate to ensure that member states use the SEEA to derive these core indicators?

⁴ The list is still preliminary; it will probably include two indicators which are SDG indicators (18 and 21) where the methodology also follows the territory principle.