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SEEA Central Framework 2028 update

**Draft Guidance Note
Issue A3**

“Update of existing information on EE-IOT”

Version for discussion at the Technical Committee of the SEEA Central Framework in March 2026

Introduction

1. The short description of issue A3 “Update of existing information on EE-IOT” from October 2024 is:

“The SEEA CF could incorporate, at a high level, new insights and improved descriptions on environmentally-extended input-output tables (EE-IOT) analysis, which take into account recent advances in this area (e.g. FIGARO, MRIO GLORIA, etc).”

The production of input-output tables and related analytical methods are described in some detail in Chapter 36 of the recently approved SNA 2025 (United Nations et al., 2025). Chapter 36 presents an introduction to methods for compiling single country input-output tables and multi-country tables. Chapter 36 also introduces the general Leontief analysis that has applications in the environmental and other spheres.

2. Used in conjunction with SEEA accounts for residuals and resource inputs for example, input-output tables can support the analysis of the indirect effects of demand on such residuals and resource inputs such as air emissions, material use, waste, land use, water use and energy use. These applications are mentioned in the SNA 2025:

“Each of these (SEEA) accounts is structured ... to present data according to the industry and sector classifications used in the SNA. The data can thus support the derivation of many indicators (e.g. footprint indicators) and types of analysis (e.g., extended input-output analysis).” SNA 25 (pre edit) par. 2.86

SEEA CF 2012 Section 2.4 Combining physical and monetary data notes that “compiling and contrasting monetary and physical data in meaningful ways are at the heart of the SEEA philosophy” (United Nations et al., 2012, par. 2.86), and then refers to the descriptions of input-output tables and related analyses in the SEEA Applications and Extensions (United Nations et al., 2017). Input-output tables and related analyses are also mentioned in Chapter 6 – Integrating and presenting the accounts.

3. Descriptions relating to input-output analysis arise in two main sections in the SEEA Applications and Extensions: Section 3.2 Environmentally extended input-output tables (EE-IOT) and Section 3.3. Techniques for the analysis of input-output data.
4. Input-output analysis was first extended to environmental modelling in the late 1960s and early 1970s and is therefore a well-established analytical method. A central feature of this is the analysis generally attributed to Wasily Leontief. The past 20 years or so has seen significant development of input data and methods for research, policy support and statistics production based on input-output analysis. The development of the SEEA so far has contributed in no small way to this. The same time period has seen a steadily increasing interest from data users and decision makers.
5. The remainder of this Guidance note covers:
 - Review of existing measurement and research
 - Conceptual options and treatments
 - Recommendations on conceptual treatments

- Other considerations in advancing the issue

1 Review of existing measurement and research

6. IO tables in and of themselves are purely economic accounting presentations. IO analysis as originally presented by Wasily Leontief is not either a purely environmental-economic technique, rather can equally be applied to social and economic analytical ends. In light of this, there is considerable treatment of IO-related issues relevant for the SEEA and for EE-IOT and analysis in existing UN standards and guidance in the purely economic realm.
7. The SNA 2025 presents IO tables in Chapter 36. IO tables are presented as a natural analytical extension of supply use tables and notes their use in the national accounts context that “the process of compiling these tables is a powerful way of ensuring consistency between the various data sources available to the compiler.” Chapter 36 more broadly covers issues related to deriving symmetrical input-output tables from supply use tables. It includes the following sections:
 - Section B – Flexibility in the supply and use tables: Largely concerning adjustments that can be made to supply and use tables when being used for the purpose of deriving input-output tables
 - Section C – Deriving an input-output table: Largely concerning a broad description of the analytical methods for producing input-output tables from supply use tables (in particular concerning the treatment of secondary products) as well as an introduction of the Leontief analysis
 - Section D: Multi-country tables: Highlighting amongst other things the value and uses of multi-country tables and highlighting the challenges involved in their compilation. Multi-country input-output tables have not previously been covered in for example the SNA 08.
8. Chapter 36 nevertheless only aims to give “give a feel for the sort of operations necessary to transform national supply and use tables into national input-output tables as well as compilation of multi-country input-output tables” SNA 2025, para 36.4. It rather refers to another UN document, “The UN Handbook on Supply and Use Tables and Input-Output Tables with Extensions and Applications” as well as the website of the International Input-Output Association for more detail concerning the issues covered in the Chapter.
9. Chapter 36 also makes reference to analytical applications and indicator derivation that can be supported by input-output tables and analyses, though does not make an attempt to describe these in depth. Rather Chapter 36 refers to a more complete explanation of purely economic applications such as trade in value added and global value chains in SNA 2025 Chapter 23 on Globalisation. “Environmental footprints” are also briefly mentioned in Chapter 36 as an example of indicator derivation, though no reference for further explanation is provided for them there.
10. The presentations of trade in value added indicators and the global value chain thematic account do provide interesting templates to underpin how the EE-IOT and related analyses may be presented in the SEEA CF 2028. The presentations include a brief introduction of the relevance of each method from the user perspective and the global context of the world economy. The section on trade in value added also includes a simplified example to illustrate the relevance. They also include references to relevant handbooks and guides with more detailed compilation information, a brief qualitative presentation of the core input data and the key indicators that can be produced with each method.

11. The potential for EE-IOT to support environmental-economic analyses and indicators is mentioned elsewhere in the SNA, for example Chapter 2 National accounts and its contribution to measuring well-being and sustainability:

(The SEEA) ... “can thus support the derivation of many indicators (e.g. footprint indicators) and types of analysis (e.g. extended input-output analysis)” SNA 2025 para. 2.86.

12. This potential is also mentioned in Chapter 15: supply and use tables:

“The supply and use tables (and input-output tables) inform several national and international policy issues, including: ... Climate change, for example, ... , environmentally-extended input-output tables..” SNA 2025 para. 15.7.

13. And in Chapter 35: Measuring the sustainability of well-being:

“A separate accounting application related to the measurement of environmental flows is the compilation of input-output tables which incorporate additional rows alongside the standard set of products. The additional rows, which concern things like water use, energy use, greenhouse gas emissions, material flows and ecosystem services, may be recorded in monetary or physical terms. These environmentally extended input-output tables are likely to be of significant relevance in the development of extended economic models aimed at assessing the implications of alternative climate and nature related policies. *SEEA Applications and Extensions* provides an introduction to environmentally extended input-output tables.” SNA 2025 para. 35.97

14. Descriptions relating to input-output analysis arise in two main sections in the SEEA Applications and Extensions: Section 3.2 Environmentally extended input-output tables (EE-IOT) and Section 3.3. Techniques for the analysis of input-output data.

15. Section 3.2 Environmentally extended input-output tables (EE-IOT) aims “to introduce the main types of EE-IOT, examine key components of their compilation, and discuss some of the associated measurement issues”. The information in this section is summarized in the following paragraphs.

16. The section includes an explanation of the structure and mathematical relationships in a single-region input-output (SRIO) table (Section 3.2.2), hybrid IO tables (Section 3.2.3) and international multiregional input-output tables (Section 3.2.4). These summaries address both monetary data and associated environmental extensions (natural inputs and/or residuals). Section 3.2.5 on measurement issues addresses the ways in which and the reasons why information about specific countries included in an international MRIO may differ from that in SRIOs for the same countries. It continues with a discussion of the relative advantages and disadvantages of using an MRIO approach or a SRIO approach (with a domestic technology assumption) for analysis focussed on a specific country.

17. The introduction to Section 3.3 Techniques for the analysis of input-output data includes a brief review of input-output modelling from the early 1930s through the 2010s followed by review of the basic mathematical framework of input-output analysis (the Leontief analysis). Subsequent parts of Section 3.3 cover multiplier analysis, attribution of environmental flows to final demand,

decomposition analysis and the use of input-output modelling in computable general equilibrium models.

18. The UN Handbook on Supply and Use Tables and Input-Output Tables with Extensions and Applications (hereafter the UN SUT IOT Handbook) is a comprehensive guide. Of relevance here is that it includes an overarching introduction to SUTs and IOTs, compilation processes for SUTs, processes for transforming SUTs into IOTs, compilation of physical supply and use tables and environmentally extended input-output tables. It also includes guidance on compilation of regional supply and use tables, and multicountry supply and use tables.
19. the UN Handbook on Supply and Use Tables and Input-Output Tables identifies the possibility of presenting monetary input-output tables either per industry (based on the international ISIC classification) and per product (based on the international CPC classification).
20. The UN SUT IOT Handbook describes the structures for the key types of single country input-output (SCIO) tables which are relevant for EE-IOT and analyses. namely:
 - a. The domestic input-output table. This includes:
 - i. all domestic intermediate uses (by product/industry of production and product/industry of use)
 - ii. Value added and imports by product/industry of use
 - iii. final uses (by category of final use and product/industry of production),
 - b. The input table for imports. This includes:
 - i. Domestic intermediate use of imported products by importing product/industry and product/industry of production
 - ii. Domestic final use of imported products by product/industry of production and category of final use
 - c. The input-output table: This is a summation of the domestic input-output table and the input table for imports
21. The UN SUT IOT Handbook also describes monetary multicountry input-output (MCIO) tables (Chapter 17). The format for these are as follows:
 - d. Intermediate use by product/industry and country of use and product/industry and country of production
 - e. Final uses by category of final use and product/industry and production and country of final use
 - f. Imports from the rest of the world by product/industry of use
 - g. Value added by product/industry of use and country of production
22. In such a way the MCIO tables follow a similar format to the single country input-output tables. The Handbook further provides an introduction to the specific methods required for compiling multi-country input-output tables

23. Chapter 13 in the UN SUT IOT Handbook describes in detail the compilation of physical supply-use tables. The derivation of the PIO from PSUT is described as analogous the compilation of monetary IO tables from monetary supply and use tables (which is described in detail in UN SUT IOT Handbook Chapter 12). There is also a description of “hybrid input-output” tables where monetary rows in the table (i.e. the use of a certain product/industry) are replaced by physical values.
24. The UN SUT IOT Handbook also describes the production of environmentally-extended input-output (EEIO) tables (REF) in Chapter 13. The basic format is where monetary input-output tables (Chapter 12) are supplemented with a vector with physical data classified by product/industry of use.
25. The Eurostat Manual of Supply, Use and Input-output tables was published in 2008. This has not been reviewed in detail since it is older than other available relevant standards.
26. Whilst countries with well-developed systems for national accounts regularly produce and disseminate input-output tables, the production of multicountry input output tables largely falls outside of the purview of national statistical offices. Nevertheless, in the last 15 years or so, many multicountry input-output tables with global coverage, so called global multiregional input output (GMRIO) tables have been produced (see Table 2 in the annex to this document). As shown in the table, the majority of such approaches have been developed by research institutions. Nevertheless, there are a few examples of compilation by international organisations. Examples of these include Eurostat’s FIGARO and the OECD ICIO tables. A starting point for such tables is countries’ own SCIO tables. Such data need to be supplemented with trade data with classifications connecting exporting countries with importing countries. These data are produced at a global level, however it is often noted that the sum of global exports does not match with the sum of global imports. This is a contributing factor to the need to apply balancing procedures in such tables. The heterogeneity of input data, the need for balancing and the level of aggregation are key contributors to observed variation in the data between different GMRIOs. A common decision in balancing for example is which input data should be held constant and which input data should be adjusted in order to achieve the necessary balance between supply and use in input-output tables.
27. Many of the GMRIO initiatives noted in Table 1 also include environmental extensions (i.e. as those theoretically explained the UN SUT IOT Handbook). These environmental extensions include greenhouse gas emissions, emissions of air pollutants, land use, water use, biodiversity, energy use and material use. As noted in a forthcoming review by the OECD, these extensions use a wide variety of data sources and are at very differing stages of maturity. Given the relatively large amounts of data entailed in such extensions, an overall assessment of quality is very complex. In general, the forthcoming review by the OECD notes that:
 - h. Environmental extensions for GHGs are relatively well-developed, though methods do diverge considering the allocation to products/industries
 - i. Data on material use are also reasonably well-developed
 - j. Measurement of air pollutants and water use are conceptually more challenging, and location subannual time aspects are a more important aspect here

- k. Available data on water use are only available on very high levels of aggregation, which are then subdivided to economic activities based on assumptions
 - l. Multiple datasets for land use exist, but sources and methodologies vary widely
 - m. Data on ecosystem services are currently very limited.
28. Alongside the development in data sources relevant for EE-IOT, many examples of current production practices can be noted. Examples include the following¹:
- n. The Netherlands statistical office currently produces consumption-based environmental pressures for greenhouse gas emissions, material use, land use, biodiversity and water.
 - o. Eurostat produces environmental footprints for GHG emissions with breakdowns by greenhouse gas for all EU member states.
 - p. The UK publishes official statistics on GHG emissions from consumption
 - q. Statistics Sweden publishes official statistics on environmental pressures from consumption. This includes greenhouse gas and other air emissions.

2 Conceptual options and treatments

28. Previous sections in this guidance have noted that there is a wealth of material relating to input-output tables in high-level standards and guidance documents that have been published since the SEEA CF 2012. As also shown in the review, new methods have also been applied in the practical production of statistics based on EE-IOT. A first task of the SEEA CF 2028 is therefore to bring the EE-IOT material in line with these developments. In order to do this, there are a number of separate areas that should be addressed:
- a. The structure of EE-IOTs
 - b. Compilation and data sources for EE-IOTs
 - c. Analytical methods for statistics production
 - d. Terminology

29. The structure of EE-IOTs:

¹ Material: [Grondstofvoetafdrukken Nederland, 2010-2021 | Compendium voor de Leefomgeving](#)
 GHG: [Broeikasgasvoetafdrukken Nederland, 2010 - 2021 | Compendium voor de Leefomgeving](#)
 Land use: [Nederlandse landvoetafdrukken, 2010-2021 | Compendium voor de Leefomgeving](#)
 Biodiversity: [Nederlandse biodiversiteitsvoetafdrukken, 2010-2021 | Compendium voor de Leefomgeving](#)
 Water: [Nederlandse watervoetafdrukken, 2010-2021 | Compendium voor de Leefomgeving](#)
 UK: [Carbon footprint for the UK and England to 2022 - GOV.UK](#)

30. The UN SUT IOT Handbook presents the most in depth description of input-output tables in general. It even includes a section presenting a derivation of the Leontief analysis for relevant environmental extensions. At the same time Chapter 36 in the SNA 2025 also presents somewhat overlapping material, with the obvious caveat that the UN SUT IOT Handbook (alongside other literature) provides more extensive coverage. At a very basic level then, the SEEA CF 2028 should make reference to the structural descriptions pertaining to EE-IOT principally in the UN SUT IOT Handbook. On the other hand, from the formal perspective of communicating that EE-IOT and analyses are an integral part of the SEEA CF 2028, it may be desirable to have at least some explicit description of the structure of the EE-IOT tables also in the SEEA CF 2028. This would also be valuable to present up-to-date formats that are specific for the environmentally-extended case and specific for the environmental accounts. In the single regional format of monetary input-output tables this would include the following:
- a. The input-output table
 - b. Input table of imports (relevant for certain current methods)
 - c. Input-output table with net exports
 - d. Natural inputs and residuals

It is also relevant here to describe a hybrid input-output table, where rows of monetary data in the input-output table are replaced with physical data.

A separate description could be included considering the multicountry input-output tables, which could summarize the overall format of such tables.

31. Physical input-output tables are mentioned in the UN SUT IOT Handbook, however their structure is not presented. It is neither clear in the text of the UN SUT IOT Handbook the extent to which it makes an actual distinction between physical input-output tables (PIOT) on the one hand and environmentally-extended input-output tables (EE-IOT) on the other. There is potential of course to describe the structure of a PIOT in the SEEA CF 2028. Having said that, it seems beyond current practice and beyond the descriptions in the UN SUT IOT Handbook, and therefore seems of lower priority than the environmental account specific descriptions of the extended monetary input-output tables previously considered.

32. Compilation and data sources for EE-IOTs:

33. Compilation methods and data sources for deriving the monetary elements in EE-IOTs from monetary SUTs are described in detail in the UN SUT IOT Handbook and in SNA 2025. This includes compilation and data sources for the single regional case and the multiregional case. The UN SUT IOT Handbook describes the methods for compiling physical input-output tables briefly as analogous to the process for compiling monetary tables. Again the UN SUT IOT Handbook does not make a clear distinction between EE-IOT and PIOT here.
34. It could suffice in the SEEA CF 2028 to reference briefly these standards, not least because the strictly monetary parts of such tables are not solely the purview of the environmental accounts. A more extended treatment could present possible options for converting monetary SUTs into EE-IOTs, considering the industry-industry format as compared to the product x product format, and the choices entailed in their compilation (e.g. the product technology, industry technology, fixed industry sales structure and fixed product sales structure). This could be relevant since these different assumptions can be more or less relevant for certain applications.

35. Environmental extensions in EE-IOT are further derived from datasets that are defined in the SEEA. These can be in the form of residuals (e.g. greenhouse gas and other air emissions) or natural inputs (e.g. material flows, water use, energy use). They are therefore derived from physical flow accounts as described extensively in SEEA CF 2012 Chapter 3 – Physical flow accounts. In a basic presentation of EE-IOT in the SEEA CF 2028, reference should be made to the corresponding physical flow account Chapter in the new standard. It should also be noted in a basic presentation that adjustment may be needed from an industry perspective (that is most common for SEEA CF physical flow accounts as currently produced) and a product perspective (that is common for EE-IOT-based statistics production).
36. Previous paragraphs considering compilation methods and data sources focus on the single country perspective. MCIOT do follow a similar procedure as for the single country. However, when compiling MCSUT from single country SUT though some additional considerations are necessary. This concerns for example international trade in such tables is accounted for. Additional data are also needed in this process with information connecting importing countries with exporting countries (typically from trade data). It is further important to note that though single country SUT and IOT are in general produced by national statistical offices, multiregional tables are generally not. In this document the potential to use multicountry input-output tables for the production of statistics is described at greater length in the section on analytical methods and data for statistics production.
- 37. Analytical methods and data for statistics production:**
38. The review earlier in this document has presented a number of EE-IOT methods that are currently applied for statistics production. It is proposed in light of current practice that a focus in this section be on the Leontief demand-pull method that is used to derive consumption-based environmental pressures (consideration of other EE-IOT-based methods is given at the end of this section). Such Leontief demand-pull models currently in use include:
- a. Single-regional analysis (with domestic technology assumption)
 - b. Multiregional analysis (see for example Eurostat’s consumption-based greenhouse gas emissions for European Union member states)
 - c. Single-regional national account compatible (SNAC) method, see (Edens et al., 2015) and a similar method used in the UK
 - d. Coupled model, or simplified SNAC see for example (Palm et al., 2019)
39. The data requirements for each of these methods are shown in below. A basic presentation of such methods could briefly present these methods and refer to relevant sources for more compilation detail. The basic presentation would also include a qualitative description of the advantages and disadvantages for each of the approaches. In a more extended presentation, the major formulae and procedures required for their production could also be presented explicitly in the standard with a view to contributing to improved harmonisation in production. Further text could also present examples based on current practice for statistics production as presented earlier in this document.

Table 1: Data requirements for different types of EE-IOT analysis to produce statistics on environmental pressures from consumption

| Type of EE-IOT | Type of analysis | | | |
|-----------------------------|--------------------------|-------------------------|------|-----------------|
| | Single regional analysis | Multi-regional analysis | SNAC | Simplified SNAC |
| Single regional EE-IOT | Yes | No | Yes | Yes |
| Global multiregional EE-IOT | No | Yes | Yes | Yes |

40. Table 1 shows different types of EE-IOT that are required to implement each of the analyses in the previous paragraphs. This is relevant since whereas national statistics offices have the ability to produce all data in house for the single-regional analysis it is often beyond the mandate and capacity of said offices to produce multiregional (global) EE-IOT that are required for the other types of analysis. This includes both the monetary and the environmental parts of global EE-IOT. According to current practice in statistics production, national statistical offices use public global EE-IOT from an external source for the production of national statistics. Examples of such tables are given in Table 2 in the Annex to this guidance. It is clear that the methodological choice of which global EE-IOT to use should be mentioned in any basic presentation in SEEA CF 2028. A more extended presentation could further present relevant examples of global multiregional EE-IOT based on Table 2, as well as similar tables for relevant environmental extensions.

41. In referring to methods noted above, a basic presentation should also mention the possibility to apply such analyses using input-output tables with only monetary data, hybrid tables and PIOT.

3 Recommendations on conceptual treatments

42. To be developed based on discussions in community

4 Other considerations in advancing the issue

To be completed

5 References

To be completed

6 Annexes

Table 2: Summary of global multiregional input-output initiatives (acknowledgement – OECD)

| MRIO Initiative | Maintaining institution | Intended use | Core table format | Number of economies | Sectoral detail | Annual time series coverage | Key characteristics |
|--------------------|---|--|---|--|---|---|---|
| ADB MRIO Aug 2025 | Asian Development Bank | Official Asia SUT/IOT system | MRIO tables at current prices, structured into inter-industry, final demand, and value-added blocks | 62, 72 or 74 + RoW (depending on edition) | 35 economic activities | 2000-2024 | ADB MRIO provides globally consistent MRIO tables with a strong focus on Asia-Pacific economies, supporting analysis of regional and global value chains. |
| EMERGING MRIO v2.5 | Tsinghua University and partners (UCL, Univ. of Groningen, NTNU), dataset on Zenodo/CEADs | Full-scale MRIO for global emerging economies; high-resolution, NSI-based compilation | Standard MRIO table (134-135 sectors, 245 economies) | Up to 245 | Approximately 135 activities | 2010; 2015-2019 | MRIO initiative designed to improve representation of emerging and smaller economies in global production networks. |
| EMRIO v2025 | Tohoku University | Enterprise-level global supply-chain tracing; environmental accounting; Scope-3; transparency; LCA support | MRIO combining national Input-Output tables with firm-level production and transaction data | 121 | "17 322 sectors, 9 466 companies and 86 305 subsegments" | 2015 | First enterprise-level MRIO; globally consistent firm-level transactions; highly disaggregated; supports supply-chain transparency and environmental policy tools |
| Eora26 v2022 | University of Sydney | EE-MRIO / max coverage; heterogeneous sources, high country granularity | Mix of SUT + SIOT; heterogeneous (industry x industry or product x product SIOTs) | 190 | Full Eora (high resolution) and Eora26 (26-sector) harmonised version | 1990-2022 | Global MRIO framework emphasising maximum country coverage and consistency across time. |
| EXIOBASE 3.9 | EXIOBASE Consortium | EE-MRIO designed for footprint accounting | Harmonised SUT format (older ESR table) | 44+ five RoW regions | 163 industries 200 products | 1995-2020 (nowcasts for 2021-2022) | Highly detailed MRIO system designed to capture complex inter-industry and cross-border production linkages. |
| FABIO | Vienna University of Economics and Business (FINEPRINT) | Physical MRIO for agriculture, food and forestry; biomass and resource-flow analysis | Physical multi-regional Supply-Use Tables; hybrid MR-SUT/IO | 191 + RoW | 118-121 processes and 125-130 commodities | 1986-2013 | Only global physical MRIO; FAOSTAT-based physical balancing; high-detail biomass flow tracing |
| FIGARO v2025 | European Commission: Eurostat and Joint Research Centre | Official EU inter-country SUT/IOT system | Inter-country SUT/IOT system; industry-by-industry & product-by-product IO tables (6464) | 45(EU27 Member States +18 main trading partners) | 64 industries 64 products (NACE Rev.2 / CPA 2.1) | 2010-2023 | Provides a coherent EU-centred MRIO system fully consistent with European national accounts and international trade data. |
| GLORIAv059 | UNEP International Resource Panel and University of Sydney (IELab) | Resource-focused EE-MRIO | MRIO IxI format (Tvy raw format), convertible to standard U/S/Z/A/L/Y IO matrices | Over 160 | Detailed sectoral structure | 1990-2021 | MRIO system used as a backbone for global footprint and production network analysis. |
| GTAP 10A | Global Trade Analysis Project | SAM/CGE-first global database | Built from SAM/cost structures + reconciled trade; not inherently separated into intermediate | 141 countries and regions + RoW (GTAP 10A) | 65 sectors | Benchmark years (e.g. 2004, 2007, 2011, 2014) | Benchmark-based MRIO constructed as internally consistent snapshots for specific reference years. |

| | | | | | | | |
|-----------------|-------------------------|---|---|----------|-----------------------------------|-----------|---|
| | | | vs final trade in the MRIO-style base, so transformation is needed to an ICIO framing | | | | primarily designed for CGE modelling. |
| OECD ICIO v2025 | OECD | Designed as reference framework for developing measures of Trade in Value Added (TiVA), GHG footprints and other indicators related to GVCs | ICIO / MRIO in SIOT-based representation | 80+ RoW | 50 unique activities (ISIC Rev.4) | 1995-2022 | Globally balanced ICIO tables (including all OECD, EU27, G20 and most ASEAN countries) aligned with national accounts and trade statistics for analysing GVCs and international fragmentation of production |
| WIOD 2016 | University of Groningen | Trade, productivity and GVC analysis; environmental extensions | Inter-country IO tables derived from national SUTs (SNA 2008) | 43 + RoW | 56 industries (ISIC Rev.4) | 2000-2014 | SUT-based MRIO with underlying SUTs and socio-economic accounts; harmonised national-accounts approach |