System of Environmental Economic Accounting

Global data collection for physical energy flow accounts (PEFA) and air emission accounts (AEA)

Marko Javorsek
UN Statistics Division

United Nation

OECD
BETTER POLICIES FOR BETTER LIVES

Introduction

- Development of global SEEA databases is a priority for the UN Committee of Experts on Environmental-Economic Accounting (UNCEEA)
- Physical energy flow accounts (PEFA) and air emission accounts (AEA) identified as priority areas for global data collection, given their broad policy relevance, including for the Sustainable Development Goals (SDGs)
- PEFA is the most commonly compiled SEEA account, followed directly by AEA
- Global databases = national data where it exists, country-approved estimates where it does not
- Current focus on collecting data from countries which already have national PEFA/AEA accounts but do not yet report data to an international organization

Introduction, continued

- Global template can also provide guidance for countries which will compile PEFA or AEA in the future
- Development of global PEFA and AEA questionnaires began late 2021
  - Joint exercise between UNSD and OECD, in collaboration with the wider UNCEEA Working Group on Global Databases
  - Eurostat questionnaire as starting point
  - Country pilots
  - First cycle of collection in 2023
- Consistency with Eurostat questionnaire
- Future work on building a dissemination platform for global datasets of priority accounts on seea.un.org

Use of templates

- Three templates in one workbook facilitates reporting by countries with differing levels of data availability
- **Detailed**: 64 ISIC categories (first and/or second-digit level of ISIC) and household activities disaggregated
- **Medium**: 21 ISIC categories (first-digit level)
- **Aggregate**: 5 ISIC categories (first-digit level), plus "All other industries"
- Please report the most detailed template for which data is available!
- Same natural energy input, product and residual classes are used across templates

PEFA questionnaire structure

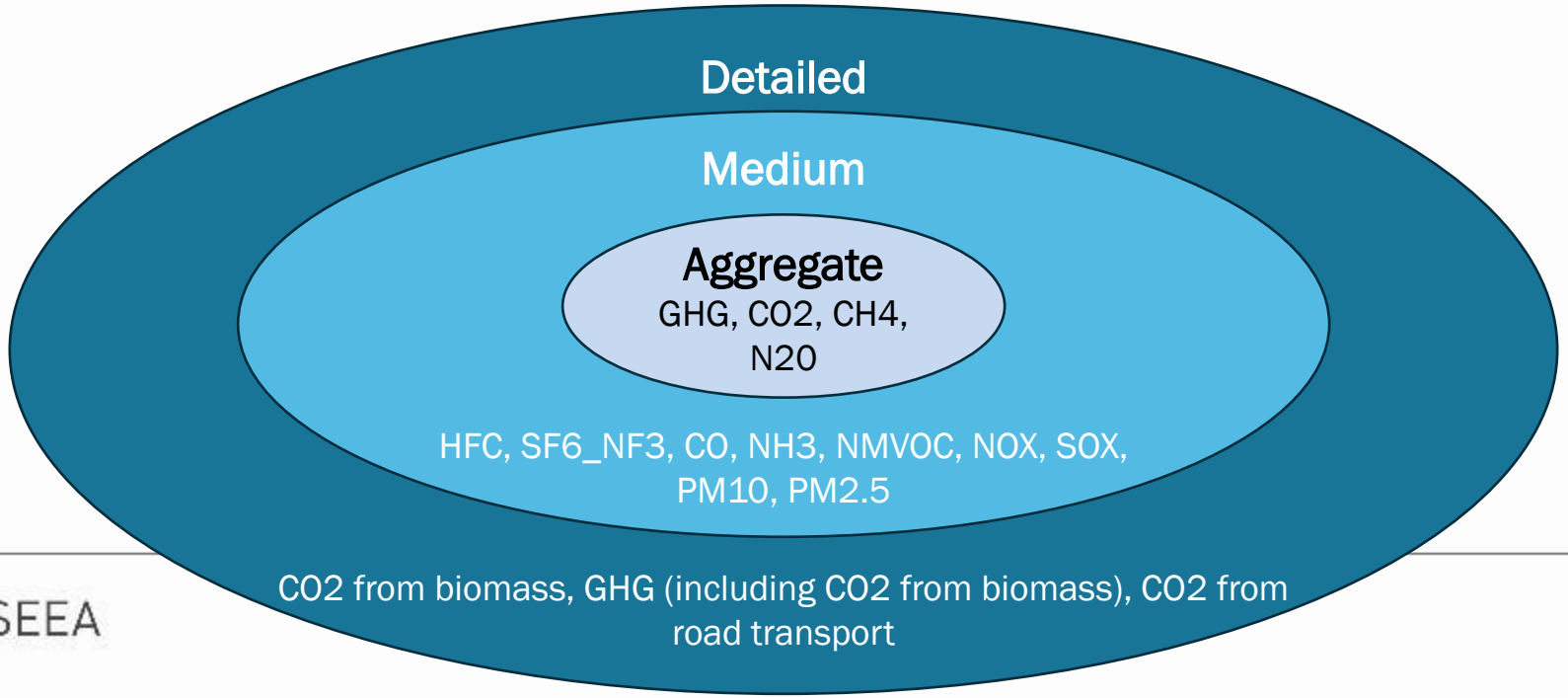
- Questionnaire fully compliant and mapped to the SEEA DSD
- Introductory sheets and information for compilers
- **Table A**: Supply
- **Table B**: Use
  - Table B.1: Transformation use
  - Table B.2: End use
- Table D: Indicators (automatically calculated!)
- Table E: Bridge table for residence to territory principle
- Scope should ideally cover all energy supply and use within the economy (e.g. natural inputs, all energy products, residuals)

Energy questionnaire functionalities

- Data entry validation
  - All cells must be filled with either a number or a colon ":", for not available
- Built-in checking tool focuses on internal validity
  - 1) Parent-child relationship for ISIC categories
  - 2) Sum of individual natural resources, products and residuals add up to the totals
  - 3) Supply and use identity (column and row)

Air emission questionnaire structure and scope

- Similar to energy, three templates in one workbook (detailed, medium, aggregate)
- Differ in two dimensions: Number of reported pollutants and industries
- Scope should ideally cover all air emissions generated from the economy



Air emission questionnaire functionalities

- Automatically calculate GHG total, provided that minimum set of gases is reported
  - GHG: CO2, CH4, N20
  - GHG_BIO: CO2, Biomass_CO2, CH4, N20
- Built-in checking tool focuses on:
  - Internal consistency (e.g. parent-child relationship for ISIC categories)
  - Plausibility (e.g. plausibility of time series)

Timeline

- June
  - Sent out questionnaires (also available at https://seea.un.org/Data/Global%20data%20collection –make sure macros are enabled!)
- July
  - Questionnaire deadline of **19 July** (both AEA and PEFA)
    - Questionnaire deadline end of September for OECD and Eurostat countries
- August-October
  - Validation
- End of year/early 2025
  - Release
  - Data.un.org

THANK YOU

seea@un.org // https://seea.un.org/