Joint OECD/UNECE Seminar on the Implementation of SEEA

Measuring the circular economy and plastic waste

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Geneva, Switzerland

Delivering insight through data, for a better Canada
Outline

• Background
• What is Circular Economy (CE)?
• Plastics and CE at Statistics Canada
  • Project to develop a plastics account
  • Project to Improve Waste Statistics
Policy context for Circular Economy (CE) and plastics reduction in Canada

Canada-wide Strategy on Zero Plastic Waste
- Environment and Climate Change Canada has funded Statistics Canada to develop methods for measuring progress, conduct surveys, and explore other sources of data

Ocean Plastics Charter
- Assessing current plastics consumption and undertaking prospective analysis on the level of plastic consumption by major sector use
What is the Circular Economy (CE)?

- The CE is a movement away from a linear “take-make-waste” model, where we extract resources in order to make, use then dispose products when they stop being useful.

- The CE is about extracting as much value as possible from our resources:
  - Reuse – Repair – Repurpose – Refurbish – Recycle

- Movement towards a more circular economy would help to reduce resource extraction, waste and GHG emissions.

- World Circular Economy Forum 2020
  - Statistics Canada will support Environment and Climate Change Canada as they prepare to co-host the World Circular Economy Forum from September 29 to October 1, 2020 in Toronto. This is the first time the forum will be held in North America.
Plastics and CE at Statistics Canada
Project to Improve Waste Statistics

• Three years of funding from Environment and Climate Change Canada

• Deliverables due by year three-
  • A robust and replicable approach to estimate quantities of plastics throughout various stages of their lifecycles
  • Qualitative indicators of consumer behaviours toward the use of plastic products in the home
  • A plastics Physical Flow Account
Plastics and CE at Statistics Canada
Project to Improve Waste Statistics

• First area of focus on the CE will be to support Environment and Climate Change Canada to measure progress towards achieving the goals set out in the Canada-Wide Action Plan on Zero Plastic Waste (CCME, ECCC)
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Project to Improve Waste Statistics

• Proposed changes to surveys
  • Enhance disposal/diversion material on *Waste Management Survey* (WMS) to capture better detail, particularly with respect to plastics.
  • Expand scope of WMS to include processors of post-consumer plastic wastes.
  • Introduce content on the *Industrial Chemicals and Synthetic Resins Survey*
  • Introduce content on *Household Environment Survey* regarding behaviours related to dealing with plastic waste in the household, what programs are offered by municipalities, uptake, etc.
  • Additional content in the *Annual Survey of Manufacturing* targeting the production and use of plastics by manufacturers.
  • Existing and new data sources will be used as inputs to the Physical Flow Account on Plastics
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• Plastics Physical Flow Account
  • We plan to use the SEEA as a way to develop useful plastics statistics, such as production and use, through a Physical Flow Account.
  • To produce the account, we are working with our experts from national economic accounts team as well as from the Input/Output modelling team to develop a pilot physical flow account for plastics.
  • We plan to use what we learn through our accounts work on plastics to other aspects of the CE (i.e. other resources).

• Other data collection approaches
  • Use of administrative data sources where possible
  • Establish partnerships with stewardship organizations
Early challenges and concerns for plastics PFA and expected key variables and indicators

- Early challenges
  - Choosing the most appropriate methodology (e.g., Input-Output modelling, System of National Accounts, etc.)
  - Developing coefficients to convert financial estimates into physical quantities
  - Figuring out how many years certain plastic goods stay in the economy (e.g., those that are not disposable or capital goods)
  - Survey data not yet granular enough to get at all the different types of plastics required and/or regional data

- Key variables
  - Quantities of plastics produced in the economy
  - Uses of plastic materials at various stages of the production and use processes
  - Amount of plastics being re-integrated into production processes
Plastics and CE at Statistics Canada Project to Improve Waste Statistics

Figure 1-1: Material flows [Gt] in the EU-28 economy, 2014

Material flows true scale in Gt/year (billion tonnes/year) in 2014 for EU28

Source: Eurostat (forthcoming)
Thank you!

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