PILOT TESTING OF UNSD/UN ENVIRONMENT QUESTIONNAIRE ON ENVIRONMENT STATISTICS



Session Two: Environment Statistics Data Collection and Surveys Fourth Meeting of the Expert Group on Environment Statistics Prague, Czechia 3-5 May 2017



There are two pilots

- Pilot Questionnaire 2017 on Electronic Waste (e-waste)
- Pilot Questionnaire 2017 on Water Quality
- The idea is to advance methodology in these two challenging fields
- Bodies collaborating with UNSD in this exercise: Eurostat, the OECD, the United Nations Economic Commission for Europe (UNECE), United Nations Environment and the United Nations University (UNU)



The pilot sample

- n = 40
- Selection criteria:
 - NOT recipient to the UNECE e-waste pilot.
 - countries with a participant of this Expert Group .
 - countries with whom UNSD has a counterpart who speaks English.
 - countries with an identified focal point for the 2016 round of the UNSD regular data collection (as of Nov. 2016).
 - countries who replied to the 2013 round of the regular UNSD data collection.



Timing and communications with NSOs

2nd half of 2016:UNSD in discussions with collaborative partners Early March 2017: both pilots sent at once to NSO focal points. 7 April 2017: Initial requested deadline by which several responses received

12 April 2017: Default extension offered to Friday, 21 April 24 April 2017: 85% corresponded on Questionnaire EGES, 3-5 May 2017: Possible deadline extension. Summary report of findings to follow.



UNSD maintaining rapport with NSOs

- UNSD is well suited to conduct such pilot exercises
- Good rapport with NSOs (and MoEs) and many of their environment statistics sections/statisticians
- Personally know many of the respondents to the pilots (via capacity building work, EGES, etc.)
- Content of pilots is closely related to UNSD's regular data collections



Water quality pilot

- Demand driven
- Per dialogue between UNSD and UN Environment
- Highly relevant to SD Goal 6: Ensure availability and sustainable management of water and sanitation for all
 - SDG indicator 6.3.2: Proportion of bodies of water with good ambient water quality.
- <u>Step-by-step monitoring methodology for indicator 6.3.2</u> used as source for dialogue and content of questionnaires.
- UNSD undertook global data collections on water quality in 1999, 2001 and 2004.



Water quality pilot

- Requests data on water quality of rivers, lakes and groundwater bodies based upon monitoring data collected at monitoring locations.
- Subject matter expertise of UN Environment required for definitions of terms
- UNSD offered experience in collecting data of this nature
- Variables (see examples of Terms at right) selected based upon <u>Step-by-step</u> <u>monitoring methodology for indicator 6.3.2</u>

TermBiochemical Oxygen Demand(BOD5)Dissolved Oxygen (DO)Electrical ConductivitypHOrthophosphate (OP)Total Oxidised Nitrogen (TON)Faecal Coliforms (FC)Chlorophyll-a (Chl-a)Nitrate



Electronic waste pilot

- Demand driven (rapid technological innovation, ever-shortening product lifespans, fast growing stockpiles of e-waste worldwide)
- Per dialogue between UNSD, UN University, Eurostat, OECD and UNECE
- UNSD has been aware of the issue of e-waste for some time and when approached was open to collaboration
 - Per discussion at capacity building exercises with countries: regulation without enforcement can be a problem.
 - Putting onus on manufacturers and importers of e-waste is important.



Electronic waste pilot

- Pilot contained pre-filled data based upon best estimation methods of the UN University using UN Comtrade statistics and UNU-KEYS (a correspondence to e-waste categories).
- Data requested for e-waste generation and collection; e-waste legislation, management and miscellaneous.
- This pilot followed an OECD e-waste pilot, and used that pilot as a model.



Feedback from countries on e-waste

- "No data on solid waste is captured by relevant authorities."
- "No waste separation is carried out," therefore no data are available for e-waste.
- "By 2018 we plan to generate data published by NACE-rev2 code."
- "estimates already included in the questionnaire will prove difficult to confirm or adjust without technical background to the methodology used"
- "Coordinating with line ministries is taking time..."
- "Estimated annual generation of e-waste is 1.4% of total waste generation."
- "Obligation for gradual source separation of e-waste will enter into force in 2019."
- "(Line ministry) currently embarking on a project to collect data on ewaste... in order to draft a national policy on e-waste."
- "We have formed a national voluntary partnership for e-waste recycling with interested stakeholders."
- "...policy states that the management of e-waste will be addressed through partnership programmes where importers, manufacturers and assemblers will be regulated to conduct buy-back programmers



Feedback from countries on water quality

- Translate it into French, please (x2)
- "(Water quality) variables requested are not a part of the national statistical plan."
- "Coordinating with line ministries is taking time..."
- "We do not have a water quality database yet... first steps for creation of one have only started in recent months."
- "In order to be able to submit the data as required (at an aggregated level), we will have to compile all the data for all boreholes and summarize it in a single table. This will require a lot of additional work and will not be representative, because the borehole water quality varies from one region to another."
- Averaging of all our country's rivers' qualitative data is not recommended because the dynamics of the natural resources and geographical environment interdependence is different, accordingly river chemical and biological quality indicators is different as well."



Lessons learned/ mistakes

- "River", "lake" and "groundwater body" were not defined within the water quality pilot. Received questions about artificial reservoirs, rainwater reservoirs and saltwater lagoons.
- In future, would review definitions in the Step-by-step monitoring methodology for indicator 6.3.2 and the IRWS.



Data collected so far

- Countries more able to provide data for water quality.
- Countries better able to provided water quality data for a single monitoring station, or for a simple average of multiple stations for one river/lake/groundwater body.
- Countries better able to provide data on rivers than lakes and groundwater bodies.
- E-waste data availability better for variables such as Total Ewaste collected, Total E-waste generated than for fragmentations of e-waste (e.g. total large equipment generated, total small e-waste collected)



Summary of pilot exercise

- Very useful at informing UNSD on countries' capabilities regarding e-waste and water quality.
- Revealed limitations in countries' capabilities
- Good responses and liaisons with NSOs
- Conclusions on e-waste: countries very rarely differentiate that kind of waste.
- Difficult to determine appropriate validation procedures when data sets are unprecedented; very little alternate data on these topics;
- Modelled/estimated/algorithm based data sets have limitations and are often oblivious to ad hoc real-life phenomena



Did the pilots serve their intended purposes?

- E-waste: We learned/can conclude that many countries don't differentiate for e-waste.
- Several countries informed that Ministries of Environment or equivalent are drafting e-waste policies.
- Further methodological development, capacity building, and strengthened inter-institutional collaboration are required to address the issue of e-waste data collection.
- Water quality: Good coverage of data. Aggregation from single monitoring station of a lake, to a whole lake, to all lakes (rivers) within a country may be difficult, and may be misrepresentative.

