Wednesday, November 22, 2017

Global MFA manual - Philippine case study

Philippines training — 2016/11/20

- The concept of MFA is new to the Philippines.
- Objectives and expected outputs: familiarise with MFA and understand the Philippines settings. Understand the available data int he Philippines, how to fill in the data gaps, how to identify them. Establish a primary MFA account.
- Expected outputs: have the knowledge for the compilation of an EW-MFA, and perform a data assessment for the available data in the PSA. Compile a preliminary MFA.
- **Lowri Rees**: Sustainable Development Targets: 17 targets to be reached by 2030. UNEP is in charge of monitoring 26 indicators, and it supports countries to produce data for these indicators.
- **Vivian Ilarina**: about compilation of environment statistical accounts. ENRAD: environment and natural resources accounts division, which is the section in charge of tracking and accounting the data related to the environment. The office has several technical working groups (TWG): land and soil, energy resources, mining…
- The Philippines started developing an environmental account in 1991, and it was done in four phases until 2000. There was a project that lasted from 1991 to 1998 to track 5 resource sector and 5 related production sectors. From 1998 to 2001 the environmental accounts were institutionalised.
- A central framework on system of environmental economics accounting was developed in 2012. After the 2014 there were funds for a project on wealth accounting and valuation of ecosystem services (WAVES) project. It aimed to promote sustainable development, mainstream the consumption of natural resources, and a tool for development planning and national economic accounts. This project was implemented by 8 countries.
- Data sources: mines and geosciences bureau, Philippine statistics authority, national economic development authority.
- In parallel with the environmental accounts, the Philippines published in 2000 a compendium of the philippine environment statistics (CPES), which was published biennially from 2000 to 2008.
- Overview of the available data for the MFA: research was done after the webinar of 6 November 2017. Data on food production (certain data) are available from the PSA: area and volume of production. A lot of information available on aquaculture (not part of the MFA account since it is considered already part of the economy).

- Energy resources: a lot of information on energy production and availability from 1990 to 2016. The resources are distinguished between renewable and non renewable in thousand tonnes of oil equivalent. Other data is available in gigawatt-hour.
- Metal ores: long list of different metallic minerals resource and reserves in metric tonnes.
- Non-metallic minerals: the data that is available is only for year 2012.
- There is an extensive data for emissions to air for year 1994, but this is secondary data which is derived from another dataset.
- Several datasets are available on emissions and waste, albeit their temporal span is rather limited to single years or 3-5 years.
- Challenges: no official data on stocks of commercially recoverable energy resources, stock of timber resources, natural fertilisers and pesticides. Metallic and non-metallic resources and reserves (incomplete reporting), wastewater data only for Metro Manila, incomplete data on hazardous waste and municipal waste.
- There are several environmental data that are simultaneously produced by multiple agencies, and these data have some overlapping.

Philippines feedback — 2016/11/22

- Coverage on **biomass**: well coverage of primary crops reported in mass, wood is reported in volume, wild harvest (fishery) is reported in metric tonnes. Data is not available for crops residues, and standard factors reported in the manual can be applied. There is also no data on wild plant harvest and wild terrestrial animal catch. Import and export of primary crops are reported by the trade statistic division of PSA and data is reported to FAO and COMTRADE. Wood trade is reported to FAO, therefore the data exists, but these volumes are relative small. Wild catch (fishery) is also reported to FAO. Note: non-timber forest products (e.g. bamboo, rattans), where should they be classified? What are large volume bulk commodities? And the Philippines standard commodities classification there are many sub-categories for wood, but not for our MFA manual. How can this be divided? Charcoal: contains both wood and coconut shells, and they are not sure how this can be categorised.
- Coverage of **fossil fuels**: resources that are available: coal, petroleum, natural gas. These are measured in volume, mass, barrels, and energy units. These datasets are sourced by contractors and extraction operators. The manual could be improved with simpler descriptions and pictures of different resources (e.g. tar sands, oil shale: what are they in simple words? Can you include an image?). For import and export the data comes from the bureau of customs. Note: the Philippines is both importing and exporting coal, and the difference is in the grade of coal. Issues: problems of conversion from volume to mass: petroleum in barrels exist in many types (light, medium, and heavy oil). To ensure that the conversion is consistent, the conversion

should be done at the level of type of oil, and not as crude oil as a whole. It is not clear what we mean in the manual with large volume and bulk commodities.

- Coverage on **metal ores**: the only big missing part is the aluminium ores. There are no information on other ores rather than iron ores, but there is data on specific refined metals (not ores). The Philippines reports metals in 10-digit codes (much more detailed than what needed in the manual). Attention: small scale mining companies do not provide their reports in tonnes, but in bags.

- Coverage on **non-metallic minerals**: all data on 2-digit codes are available in mass and volume according to the Mines and Geosciences Bureau (MGB). Issues and challenges: data for sand and gravel, and salt are underreported. Some local government are not reporting, with the exception of rare big companies. Also small works (short sidewalk, covering the floor of a house, small concrete works) are not covered. Industrial associations (e.g. the Cement Manufacturing Association of the Philippines) can have reports on key materials that are bound to non-metallic minerals. Things to improve: P56: what are the source of densities, and should they be country specific? P58: can we include the data sources for salt? In the Philippines these are all small companies. P60: table 20, how is the yearly average consumption of non-metallic minerals per capita for Asia and the Pacific? P61: please clarify the source of coefficient and provide an step-by step estimation. Can we include a description of the commodities categorised and their relative pictures?

- Coverage on **landfill waste**: this data is collected by local government units, and the reported data is of sanitary landfills and controlled dumpsites. The available data is volume per year (no weight). This data is not fully representative of the reality: rural areas do not have landfills, and practice backyard pits and open burning.

- Coverage on **emissions to air and water**: data available mostly for Metro Manila and proximal areas. What about CO2 that is absorbed by trees? And what about water that is being treated by sewage plants?

- **General suggestions**: need better elaboration of the definition of materials. The biomass definitions are missing and are unclear. About fossil fuels: how can you convert gas, which is recorded in volume, into mass?
  Make better flowcharts will help applying the manual in a much more streamlined way.
  It is unclear about the biomass used for energy, why does this go into biomass and not into fuels? It needs to be defined better. The energy agencies, when they listen the word biomass, will think of biofuels, but not as food. We need to be specific about this.
  During training: make more examples, and read the manual together, rather than having so many workshops. Make sure to distribute the manual to all the participants before starting the training. Many topics are totally new and are hard to digest, we need to introduce it slowly and clearly, and it is challenging to follow the explanations.
  Create figures that show examples on how material flows and are processed within the MFA

theoretical frame image. How can we do the material balance in the total economy? Even an example Excel file that people can use to compile.

Each part of the manual should start with the generic figure highlighting what part of the whole MFA process we are talking about. More examples and practical ways on how we can implement the manual. Perhaps we can add an appendix of examples.

The MFA is seen as a way to improve the accounting capabilities of the national statistical offices. There are already a lot of data available, and they need to be processed a little for compiling the manual. The main issue is understanding what are the things that need to be done to produce data that is consistent and usable in the MFA framework. The PSA might ask for technical assistance for producing a sound account, and hopefully there will be further follow up activities.