Overview of data obtaining, emission estimation, QA/QC procedures in IPPU

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IPPU SECTOR (1)

IPPU sector obtains data in:

2.A Mineral industry

- 2.A.1 Cement production;
- 2.A.2 Lime production (in Lime and Steel production facilities);
- 2.A.3 Glass production;
- 2.A.4 Other process uses of carbonates;
  - 2.A.4.a Ceramics (bricks and tiles production)
  - 2.A.4.d Other (NO_X and NMVOC emissions from Cement production)

2.C Metal industry

- 2.C.1 Iron and Steel production

2.D Non- energy Products from Fuels and Solvent Use

- 2.D.1 Lubricant use
- 2.D.2 Paraffin Wax use
- 2.D.3 Other
  - Solvent use
  - Road paving with asphalt
  - Asphalt roofing
  - Urea use

IPPU SECTOR (2)

2.F Product Uses as Substitutes for ODS

- 2.F.1 Refrigeration and Air conditioning;
- 2.F.2 Foam Blowing Agents;
- 2.F.3 Fire Protection;
- 2.F.4 Aerosols;

2.G Other Product Manufacture and Use

- 2.G.1 Electrical Equipment;
- 2.G.3 N_2O from Product Uses;
  - 2.G.3.a Medical Applications

2.H Other

- 2.H.1 Pulp and paper production
- 2.H.2 Food and beverages industry

IPPU SECTOR (3)

- Industrial Processes and Product Use GHG emissions contribute 5.6% (669.78 kt CO_2 eq) of the total anthropogenic GHG emissions in Latvia in 2013.

- The most important emission source of the Industrial Processes and Product Use in 2013 is CO_2 emissions from 2.A Mineral industry (550.76 kt CO_2 eq) , HFCs emissions from 2.F Product Uses as Substitutes for ODS (106.62 kt CO_2 eq) and NMVOC emissions from 2.D.3 Non- energy Products from Fuels and Solvent Use (50.81 kt).

DATA OBTAINING (1)

•Activity data are taken from enterprises, CSB (Central statistical bureau) of Latvia, CSR (Chemical Substance Registry), National statistical data base “2-Air”.

•Activity data on production and output by manufacturing companies are freely available until year 1999. CSB gives only restricted information on production and output goods. Since 1999 the information being classified as “confidencial”;

•Main problem of activity data used in estimations of emissions is confidentiality;

•Latvia has simpler situation in activity data of mineral production sector because only some or even one facility operates in each sub-category. There are only 1 facility of cement production, 1 lime production, 1 tiles production, 1 glass production and 2 facilities of bricks production;

•Due to Latvia participates in EU ETS (Emission trading system,) it was possible to obtain more acurate and complete activity data and emission factors from enterprises involved in this system.

DATA OBTAINING (2)

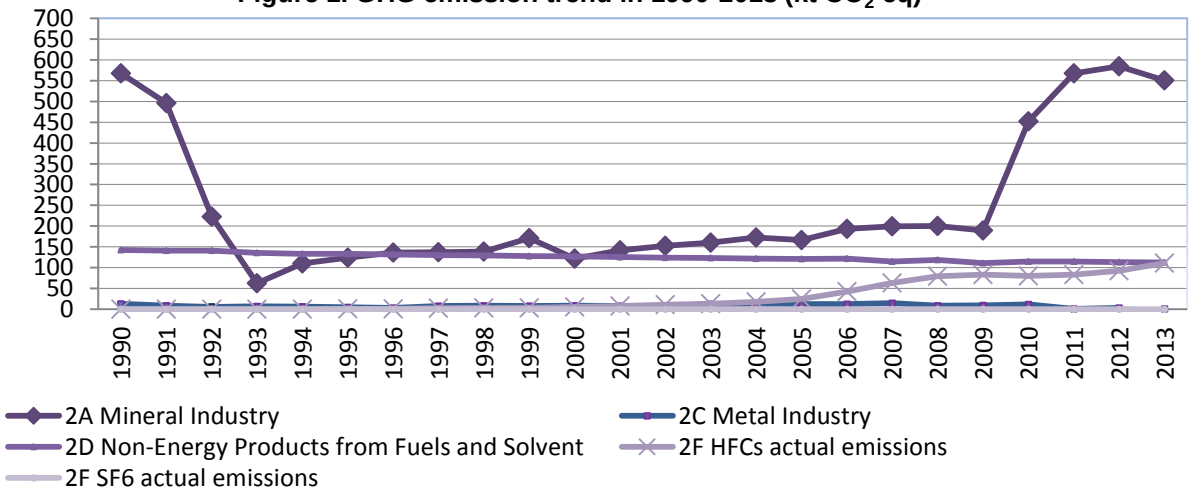
•Activity data of Industrial Processes are strongly influenced by economic situation in country;

•Emission curve reflects economic crisis in time period 1991-1993 after changes in political and social situation in country;

•Radical decrease of CO_2 emissions from 1999 to 2000 was an after-effect from economical crisis in neighbourhood country Russian Federation with whom Latvia has strong foreign trade linkage.

•At the end of 2008 and in 2009 the global financial crisis caused a crisis in Latvia's national economy and the industrial production decreased quite significantly (see Figure1).

Figure 1. GHG emission trend in 1990-2013 (kt CO_2 eq)



EMISSION ESTIMATION

•Calculation of emissions are based on provided methodology of IPCC gudelines , EMEP guidebooks and emissions from plant site that is available from national statistics data base “2-Air” are used.

•If possible/applicable, there are used new guidelines (IPCC 2006 and EMEP/EEA 2013) and higher Tier method.

•Emissions are estimated automatically in emissions calculation database (Excel spreadsheets) according to formulas that are filled in cells – activity data in separate sheet are multiplied with emission factors in another sheet;

•Calculated emissions divided in IPCC sectors are input using copy/paste option from emissions calculation database in CRF Reporter software (Excel export/filled/imported back to CRF).

•Excel tables are generated from CRF Reporter software automatically during Inventory preparation process.

QC/QA PROCEDURES

- Quality control procedure were done during work on “Preparing of GHG emission inventory (calculation and description) concerning Industrial Processes sector” report;
- In above mentioned report all emissions calculation procedures and options as well as activity data and emission factors flow are given;
- Report is based in form that it is clearly understandable how emissions calculation is done;
- There were involved internal third part expert (independent expert) to review data obtaining, emission estimation and description in NIR.
- Estimated emissions were controlled by comparing emissions reported under UNFCCC, under EMEP and under NEC;
- Emissions were checked by using time series and CRF Reporter provided tools;
- Emissions were checked by EC and UNFCCC (received annual review, coments and sugestions).

Thank you for attention!

Questions?