Executive Summary

- Executive Summary

1 - Introduction

- Chapter 1: Introduction
  - 1.1 National Inventory Background
  - 1.2 Institutional Arrangements
  - 1.3 Inventory Preparation Process
  - 1.4 Methods & Data Sources
  - 1.5 Key Categories
  - 1.6 QA/QC & Verification methods
  - 1.7 General Uncertainty Evaluation
  - 1.8 General Assessment of Completeness

2 - Explanation of Key Trends

- Chapter 2: Explanation of Key Trends
  - Nitrogen Oxide (NO_x)
  - Sulfur dioxide (SO_2)
  - Non-Methane Volatile Organic Compounds (NMVOC)
  - Ammonia (NH_3)
  - Carbon Monoxide (CO)
  - Total suspended particulate matter (TSP)
  - Fine Particulate Matter (PM_{10})
  - Fine Particulate Matter ($PM_{2.5}$)
  - Black Carbon (BC)
  - Persistent Organic Pollutants (POP)
  - Heavy Metals (HM)

3 - Energy (NFR 1)

- Chapter 3: Energy (NFR 1)
- 1.A Fuel Combustion Activities
  - 1.A.1 Energy Industries
  - 1.A.2 Fuel Combustion Activities in Industries and Construction
  - 1.A.3 Transport
  - 1.A.4 Small Combustion
  - 1.A.5 Other (including Military)
- 1.B Fugitive Emissions
  - 1.B.1 Solid Fuels
  - 1.B.2.a Oil
  - 1.B.2.b Natural Gas
  - 1.B.2.c Flaring
  - 1.B.3 Geothermal Energy

4 - Industrial Processes & Product Use (NFR 2)

- Chapter 4: Industrial Processes & Product Use (NFR 2)
- 2.A Mineral Industry
  - 2.A.1 Cement Production

    - 2.A.2 Lime Production
    - 2.A.3 Glass Production
    - 2.A.5.a Quarrying and Mining of Minerals other than Coal
    - 2.A.5.b Construction and Demolition
    - 2.A.5.c Storage, Handling and Transport of Mineral Products
    - 2.A.6 Other Mineral Products
- 2.B Chemical Industry
    - 2.B.1 Ammonia Production
    - 2.B.2 Nitric Acid Production
    - 2.B.3 Adipic Acid Production
    - 2.B.5 Carbide Production
    - 2.B.6 Titanium Dioxide Production
    - 2.B.7 Soda Ash Production
    - 2.B.10.a Other
    - 2.B.10.b Storage, Handling and Transport of Chemical Products
- 2.C Metal Production
    - 2.C.1 Iron and Steel Production
    - 2.C.2 Ferroalloys Production
    - 2.C.3 Aluminum Production
    - 2.C.4 Magnesium Production
    - 2.C.5 Lead Production
    - 2.C.6 Zinc Production
    - 2.C.7.a Copper Production
    - 2.C.7.b Nickel Production
    - 2.C.7.c Other Metal_Production
    - 2.C.7.d Storage, Handling and Transport of Metal Products
- 2.D Other Solvent and Product Use
    - 2.D.3.a Domestic Solvent Use including fungicides
    - 2.D.3.b Road Paving with Asphalt
    - 2.D.3.c Asphalt Roofing
    - 2.D.3.d Coating Applications
    - 2.D.3.e Degreasing
    - 2.D.3.f Dry Cleaning
    - 2.D.3.g Chemical Products
    - 2.D.3.h Printing
    - 2.D.3.i Other Solvent Use
    - 2.D.3.i Stationary Use of Lubricants
    - 2.D.3.i Mobile Use of Lubricants
- 2.G Other Product Use
    - 2.G.4 Use of Fireworks
    - 2.G.4 Use of Tobacco
    - 2.G.4 Charcoal
- 2.H Other (Pulp & Paper, Food)
    - 2.H.1 Pulp and Paper Industry
    - 2.H.2 Food and Beverages Industry
    - 2.H.3 Other Industrial Processes
- 2.I Wood Processing
- 2.J Production of POPs
- 2.K Consumption of POPs and Heavy Metals
- 2.L Other Production, Consumption, Storage, Transportation or Handling of Bulk Products
    - 2.L(a) Handling of Bulk Products
    - 2.L(b) Diffuse Emissions From Industrial Establishments

5 - Agriculture (NFR 3)

- Chapter 5: Agriculture (NFR 3)
- 3.B Manure Management
- 3.D Agricultural Soils
- 3.F Field Burning Of Agricultural Residues
- 3.I Agricultural: Other

6 - Waste (NFR 5)

- Chapter 6: Waste
- 5.A & B Biological Treatment of Waste
  - 5.A Biological Treatment of Waste - Solid Waste Disposal on Land
  - 5.B.1 Biological treatment of waste - Composting
  - 5.B.2 Biological treatment of waste - Anaerobic digestion at biogas facilities
- 5.C Thermal Treatment of Waste
  - 5.C.1.b.v Cremation
  - 5.C.2 Open Burning of Waste
- 5.D Wastewater Handling
  - 5.D.1 Domestic & Commercial Wastewater Handling
  - 5.D.2 Industrial Wastewater Handling
- 5.E Other Waste
  - 5.E.1 Mechanical-biological Treatment of Waste
  - 5.E.2 Building and Car Fires

7 - Other and Natural emissions

- Chapter 7: Other Sources (NFR 6) and Natural Sources (NFR 11)
- 11.B Forest Fires

8 - Recalculation and Improvements

- 8.1 - Recalculations
- 8.2 - Planned Improvements

9 - Projections

- Chapter 9: Projections
  - Results
  - Introduction
  - Calculation documentation
    - WM scenario
    - WaM scenario
  - Adjustments
  - Recalculations

10 - Reporting of gridded emissions and LPS

- 10.1 - Point Sources
- 10.2 - Gridded Data

11 - Adjustments

- Chapter 11: Adjustments

Appendices

- Appendices - OVERVIEW
- Appendix 1: Key Category Analysis (KCA)
- Appendix 2: Detailed Methodological Descriptions
- Appendix 2.1: Reporting of PM emissions
- Appendix 2.2: Road Transport
- Appendix 2.3: Heavy Metal (HM) exhaust emissions from mobile sources
- Appendix 2.4: Persistent Organic Pollutant (POP) exhaust emissions from mobile sources
- Appendix 3: Further Elaboration of Completeness
- Appendix 4: The National Energy Balance (NEB)
- Appendix 5: Additional Information

Authors

- Authors

About/Imprint

About/Imprint