



Task Force on National Greenhouse Gas Inventories

IPCC Inventory Software

IPCC TFI Side-event

UN Climate Change Conference

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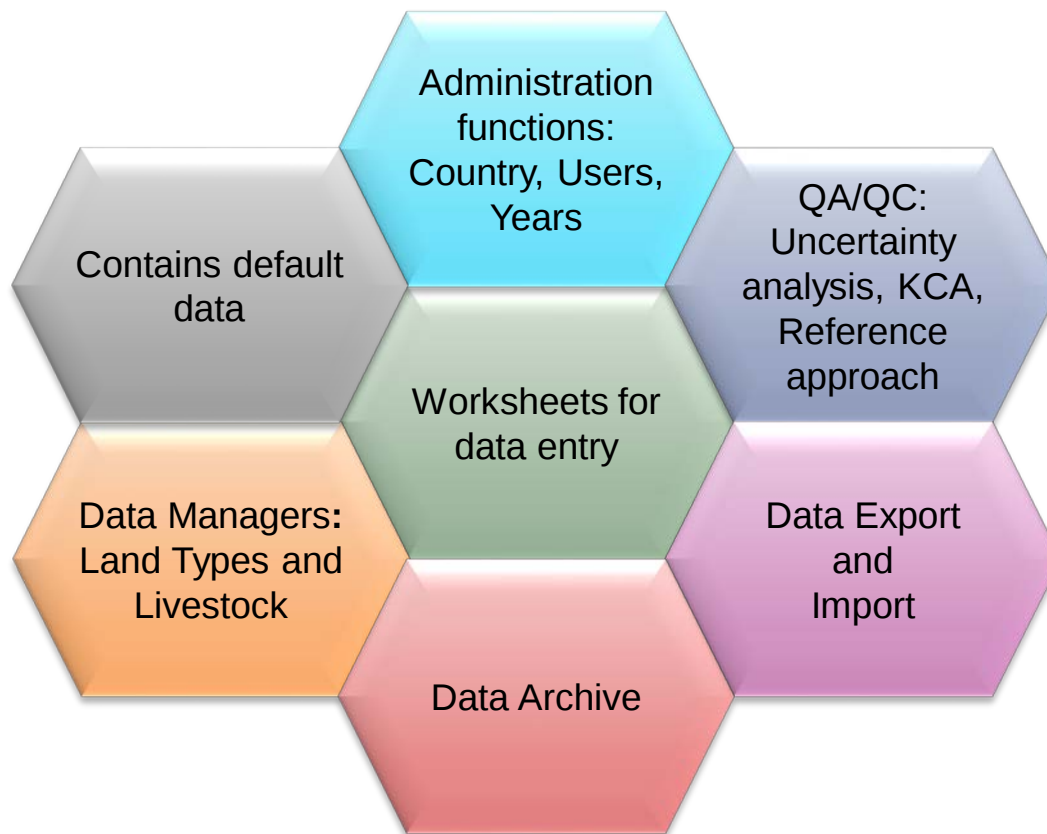
Introduction

- The IPCC launched its **IPCC Inventory Software** in 2012. The latest version is 2.16 (released in November 2015). The installer can be downloaded from:
<http://www.ipcc-nggip.iges.or.jp/software/index.html>
 - The IPCC Software implements the 2006 IPCC Guidelines for National Greenhouse Gas Inventories
 - However it can also be used for reporting under the 1996 Guidelines
 - This allows countries to utilise the improvements in the methodologies and default values since 1996
 - It improves on earlier software
 - It is database based
 - It is stand-alone – does not depend on specific versions of MS Windows or MS Office.
- Does not require internet access or expensive hardware

IPCC Inventory Software

- Inventory Software can assist inventory compilers in using the IPCC Guidelines
 - ❖ It can be used for the whole inventory or just individual categories
 - ❖ Can be used when reporting 1996 or 2006 Guidelines
 - ❖ Stand alone software with modest hardware requirements
 - ❖ Includes Uncertainty and Key Category Analysis
 - ❖ Aids QA/QC
 - ❖ Will output in non-Annex I National Communications format
 - ❖ Will be developed to include more input/output and reporting options and Implement Tier 2 methods
 - ❖ FREE!

Software Functions

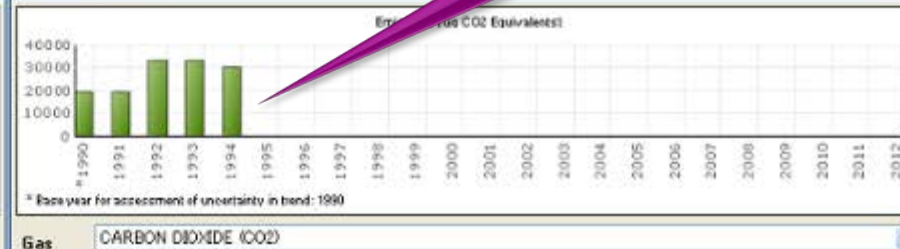


Data Entry

Worksheet-based calculations follow 2006 Guidelines

Time Series Display

Status bar contains
useful information
e.g. country,
inventory year



IPCC 2006 Categories

- 1.A.4b - Residential
- 1.A.4c - Agriculture/Forestry/Fishing/Fish F
- 1.A.4.c.i - Stationary
- 1.A.4.c.ii - Off-road Vehicles and Other
- 1.A.4.c.iii - Fishing (mobile combustion)
- 1.A.5 - Non-Specified
- 1.A.5a - Stationary
- 1.A.5b - Mobile
- 1.A.5b.i - Mobile (aviation component)
- 1.A.5b.ii - Mobile (water-borne compone
- 1.A.5b.iii - Mobile (Other)
- 1.A.5c - Multilateral Operations
- 1.B - Fugitive emissions from fuels
- 1.B.1 - Solid Fuels
- 1.B.1a - Coal mining and handling
- 1.B.1.a.i - Underground mines
- 1.B.1.a.i.1 - Mining
- 1.B.1.a.i.2 - Post-mining seam gas emi
- 1.B.1.a.i.3 - Abandoned underground
- 1.B.1.a.i.4 - Flaring of drained methan
- 1.B.1.a.ii - Surface mines
- 1.B.1.a.ii.1 - Mining
- 1.B.1.a.ii.2 - Post-mining seam gas em
- 1.B.1.b - Uncontrolled combustion and burn
- 1.B.1c - Solid fuel transformation
- 1.B.2 - Oil and Natural Gas
- 1.B.2a - Oil
- 1.B.2.a.i - Venting
- 1.B.2.a.ii - Flaring
- 1.B.2.a.iii - All Other
- 1.B.2.a.iii.1 - Exploration
- 1.B.2.a.iii.2 - Production and Upgradin
- 1.B.2.a.iii.3 - Transport
- 1.B.2.a.iii.4 - Refining
- 1.B.2.a.iii.5 - Distribution of oil produc
- 1.B.2.a.iii.6 - Other
- 1.B.2b - Natural Gas
- 1.B.2b.i - Venting
- 1.B.2b.ii - Flaring
- 1.B.2b.iii - All Other
- 1.B.2b.iii.1 - Exploration
- 1.B.2b.iii.2 - Production
- 1.B.2b.iii.3 - Processing

IPCC 2006 Guidelines

See Table 4.2.7 "Guidance on obtaining the activity data values required for use in Tier 1 approach to estimate fugitive emissions from oil and gas operations" in Chapter 4, Volume 2 of the 2006 IPCC Guidelines

Oil and Natural Gas

Worksheet

Sector: Energy
 Category: Fugitive Emissions from Fuels - Oil and
 Subcategory: 1.B.2.a.i - Venting
 Sheet: CO2, CH4 and N2O from fugitive em
 Data

1994

Notation Keys
 Available

Activity				CH4		N2O			
				D	E	F	G		
Industry Segment	Subcategory	Activity	AD	Emission Factor (Gg CO2/Unit for AD)	CO2 Emissions (Gg CO2)	Emission Factor (Gg CH4/Unit for AD)	CH4 Emissions (Gg CH4)	Emission Factor (Gg N2O/Unit for AD)	N2O Emissions (Gg N2O)
					C=A*B		E=A*D		G=A*F
Oil Production	Conventional Oil	1000	10 ⁶ Sm3	9.5E-05	0.095	0.00072	0.72	0.05	50
	Default Weighted Total	500	10 ⁶ Sm3	0.0018	0.9	0.0087	4.35	0.05	25
	Heavy Oil / Cold Bitumen	600	10 ⁶ Sm3	0.0053	3.18		0		0
	Thermal Oil Production	400	10 ⁶ Sm3	0.0022	0.88	0.0035	1.4	0.03	12
Oil Transport	Loading of Off-shore Production on Tanker Ships	300	10 ⁶ Sm3	0.005	1.5	0.0003	0.09	0.0002	0.06
Total					5.763				

Uncertainties

Defaults Available:
 can be over-written
 with country specific
 data

Time Series
 Data Entry

Worksheet remarks

1.B.2.a.i - Time Series

Uncertainties

Time Series data entry...

Delete selected

Save

Gas CARBON DIOXIDE (CO2)

Reports

Report	Level	Contents
Summary	1.A.1	Emissions
Short summary	1.A	Emissions
Sectoral	1.A.1.a.ii (Most disaggregated level)	Emissions
Background	1.A.1.a.ii (Most disaggregated level)	Activity data Emissions

Note: All reports can be exported as MS Excel file.

NAI Reporting Table

IPCC Inventory Software - maya - [NAI Reporting Tables]

Application Database Inventory Year Worksheets Reports Tools Export/Import Administrate Window Help

NAI Reporting Table 1

Greenhouse gas source and sink categories	Net CO2 (Gg)	CH4 (Gg)	N2O (Gg)	CO Gg	NOx (Gg)	NMVOcs (Gg)	SOx (Gg)
Total National Emissions and Removals	55610.091	4680.209	15.494	1.249	0.000	0.000	0.000
1 - Energy	50586.136	505.375	2.268	0.000	0.000	0.000	0.000
1A - Fuel Combustion Activities	44029.577	12.634	2.268	0.000	0.000	0.000	0.000
1A1 - Energy Industries	22398.655	0.379	0.326	0.000	0.000	0.000	0.000
1A2 - Manufacturing Industries and Construction (ISIC)	3637.813	1.246	0.166	0.000	0.000	0.000	0.000
1A3 - Transport	17993.109	11.010	1.777	0.000	0.000	0.000	0.000
1A4 - Other Sectors	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1A5 - Other	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1B - Fugitive Emissions from Fuels	6556.559	492.740	0.000	0.000	0.000	0.000	0.000
1B1 - Solid Fuels	6500.004	480.009	0.000	0.000	0.000	0.000	0.000
1B2 - Oil and Natural Gas	56.555	12.731	0.000	0.000	0.000	0.000	0.000
2 - Industrial Processes	1298.264	0.522	1.416	0.000	0.000	0.000	0.000
2A - Mineral Products	8.935	0.000	0.000	0.000	0.000	0.000	0.000
2B - Chemical Industry	78.678	0.508	1.416	0.000	0.000	0.000	0.000
2C - Metal Production	241.461	0.014	0.000	0.000	0.000	0.000	0.000
2D - Other Production	0.000	0.000		0.000	0.000	0.000	0.000
2E - Production of Halocarbons and Sulphur Hexafluoride				0.000	0.000	0.000	0.000
2F - Consumption of Halocarbons and Sulphur Hexafluoride	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2G - Other (please specify)	969.191	0.000	0.000	0.000	0.000	0.000	0.000
3 - Solvent and Other Product Use	0.000	0.000	9.201	0.000	0.000	0.000	0.000
4 - Agriculture		0.216	0.000	1.249	0.000	0.000	0.000
4A - Enteric Fermentation		0.134		0.000	0.000	0.000	0.000
4B - Manure Management		0.037	0.000	0.000	0.000	0.000	0.000
4C - Rice Cultivation		0.000		0.000	0.000	0.000	0.000
4D - Agricultural Soils			0.000	0.000	0.000	0.000	0.000
4E - Prescribed Burning of Savannas		0.000	0.000	0.000	0.000	0.000	0.000

Number of decimal places 3 ☒ Zero padding

Export to Excel

Documentation box

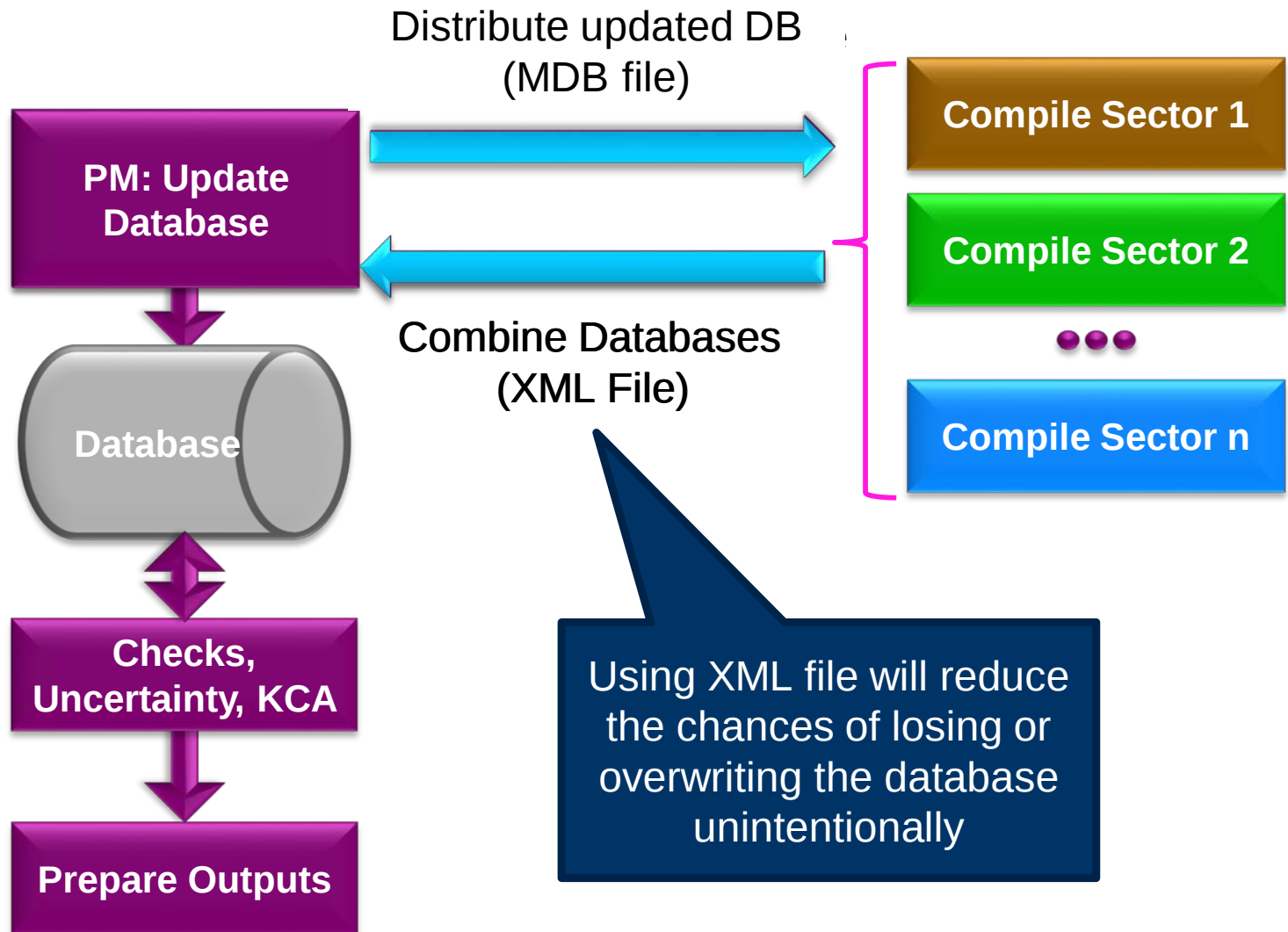
Save

Country/Territory: Slovakia Inventory Year: 1991 Base year for assessment of uncertainty in trend: 1990 CO2 Equivalents: SAR GWPs (100 year time horizon)

Multiple Users

Project manager

Sectoral Experts(s)



Support

- The TSU is supporting the software:
 - ❖ Help Desk: email ipcc-software@iges.or.jp
 - ❖ Web Forum: <https://discussions.zoho.com/ipccinventorysoftware/>
- TSU maintains software and is planning to add functions to the software:
 - ❖ Implement Tier 2 methods
 - ❖ Implement Wetlands Supplement

<http://www.ipcc-nggip.iges.or.jp/software/index.html>



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Thank you