Introduction of the IPCC tools

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Chisinau, Republic of Moldova

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Outline

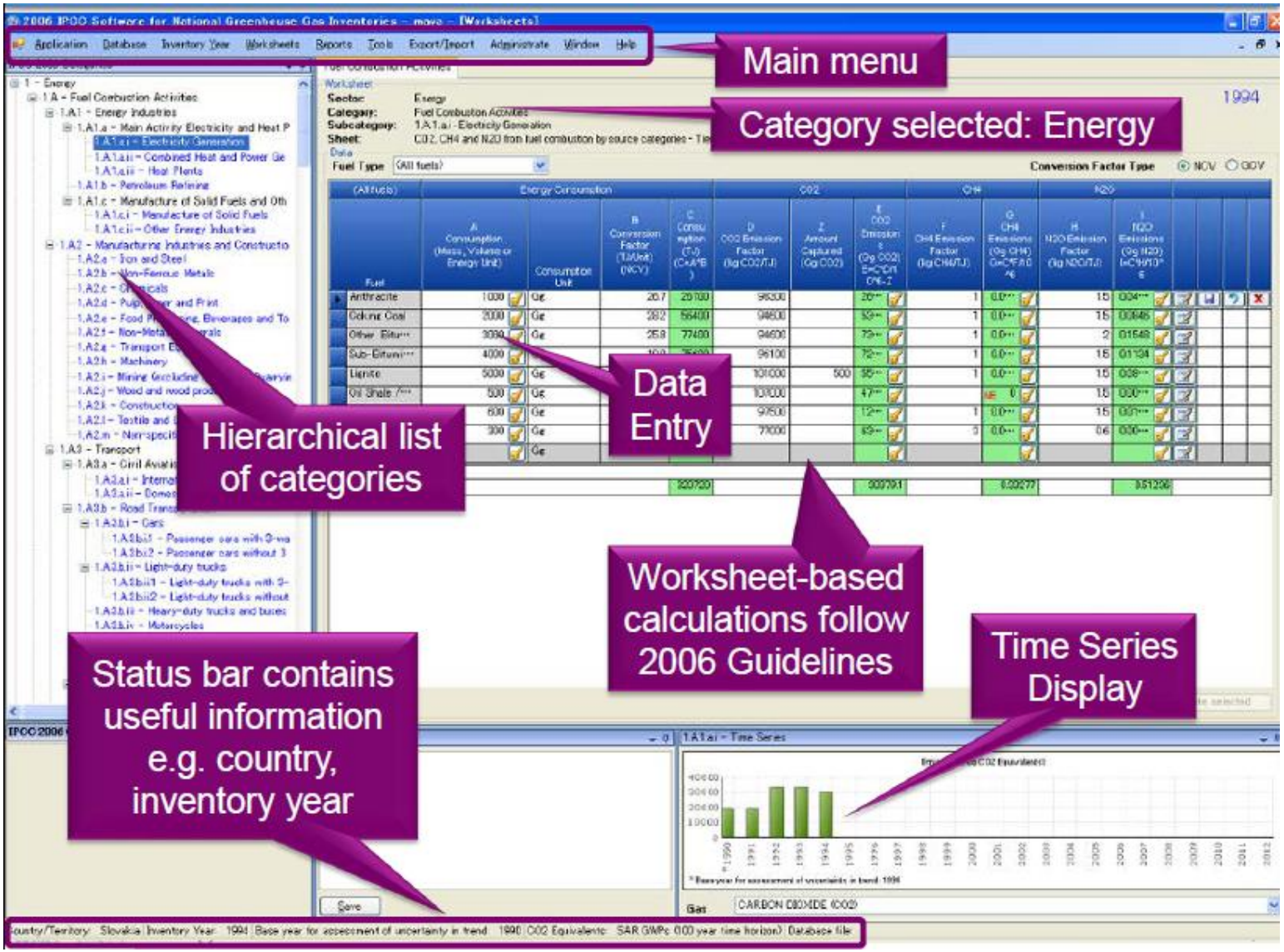
- IPCC Inventory software
- IPCC EFDB
- Preparation of IPCC Inventory software

IPCC software

Introduction of the IPCC Inventory Software

- The IPCC Inventory Software has been developed by the IPCC TSU. The latest version is 2.17 (1st March, 2016).
- The IPCC Inventory Software implements the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.
- The software covers Tier.1 methods. Tier.2 methods and Wetlands Supplement are planned but not implemented at this moment.
- Inventory Software can assist inventory compilers in using the IPCC Guidelines
  - It can be used for the whole inventory or just individual categories
  - Stand alone software with modest hardware requirements
  - Includes Uncertainty and Key Category Analysis
  - Aids QA/QC
  - FREE

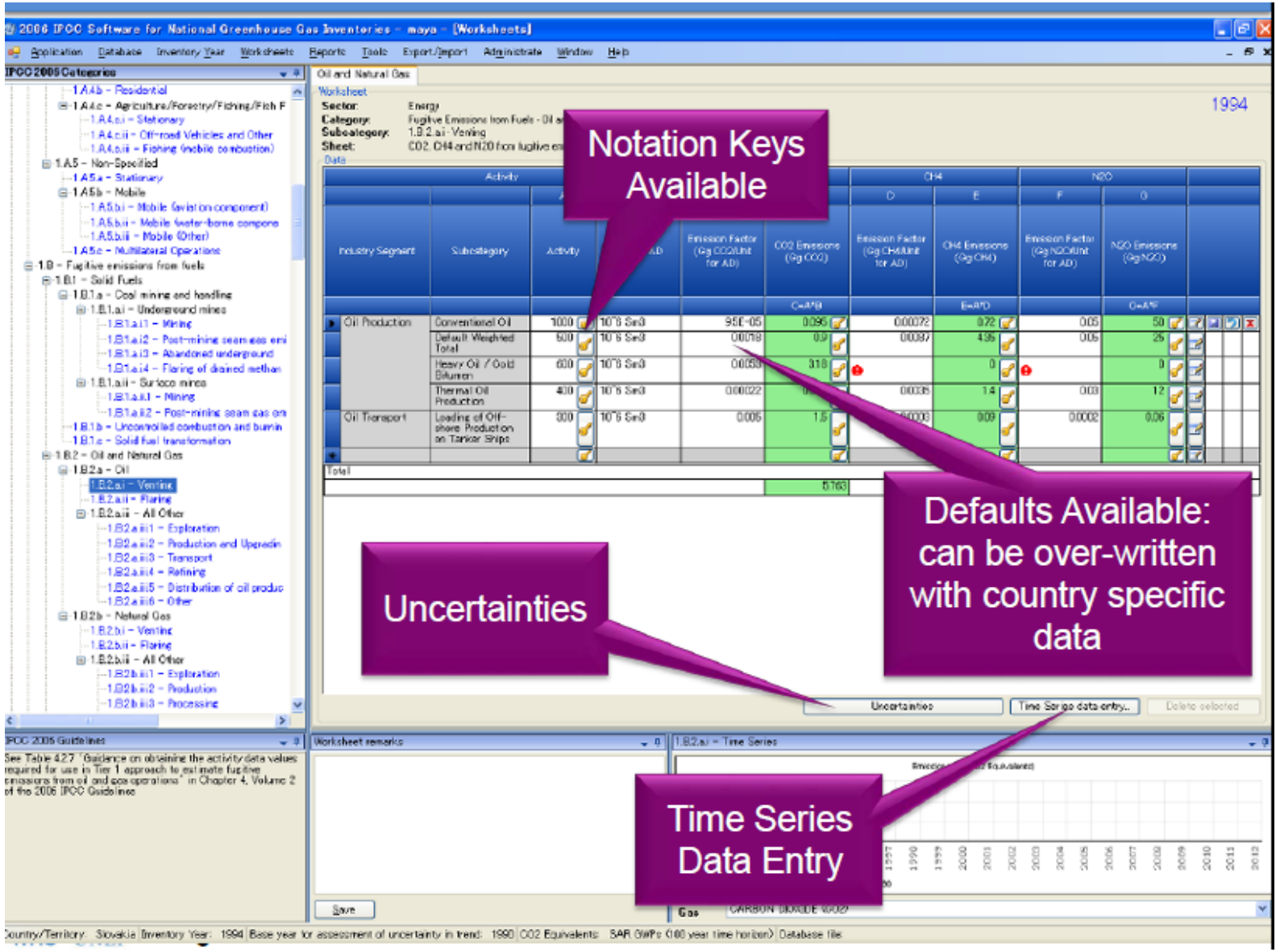
Data Entry Sheet



Source

IPCC-TSU side event, 12.2015

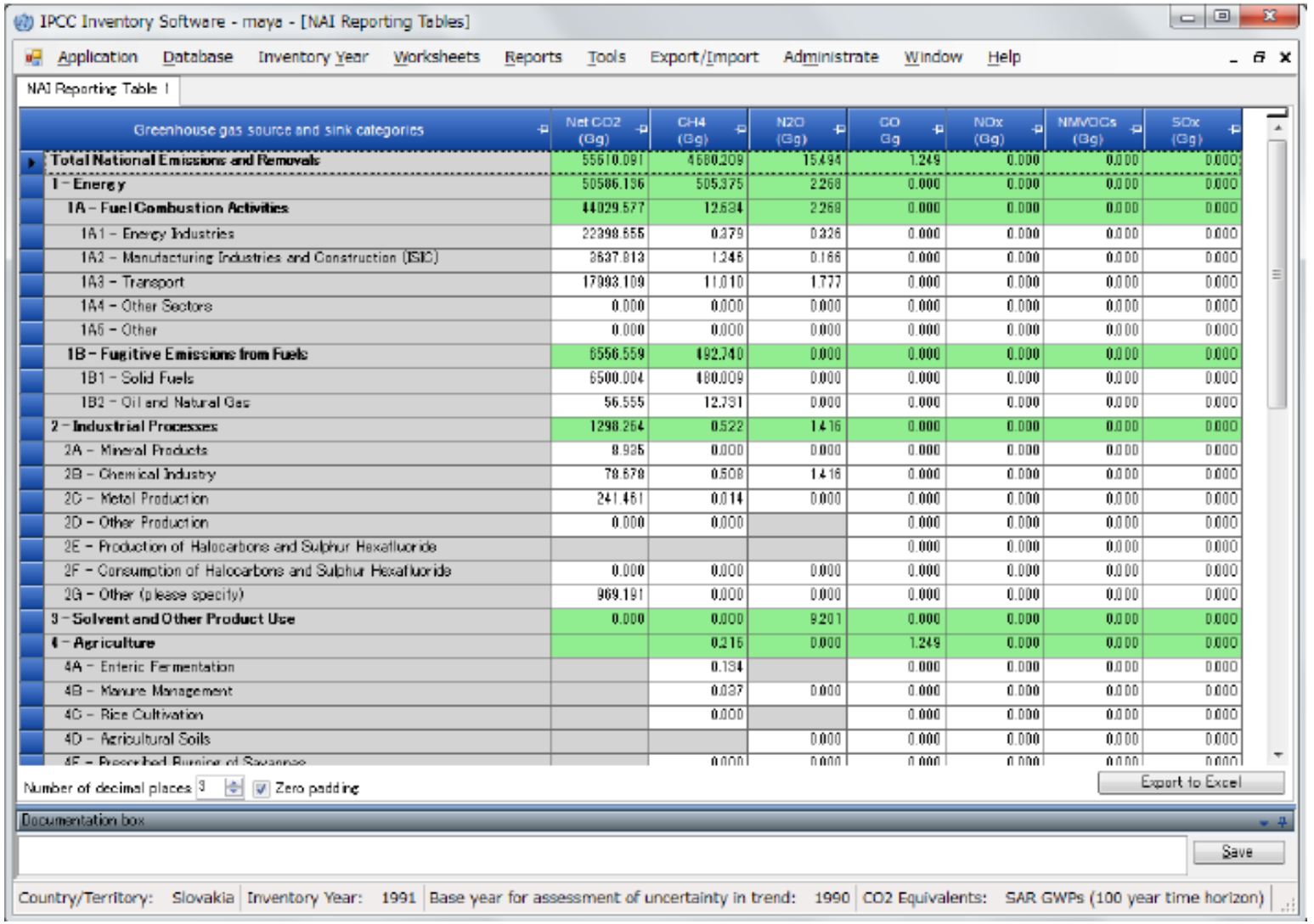
Data Entry Sheet



Source

IPCC-TSU side event, 12.2015

NAI Reporting Table

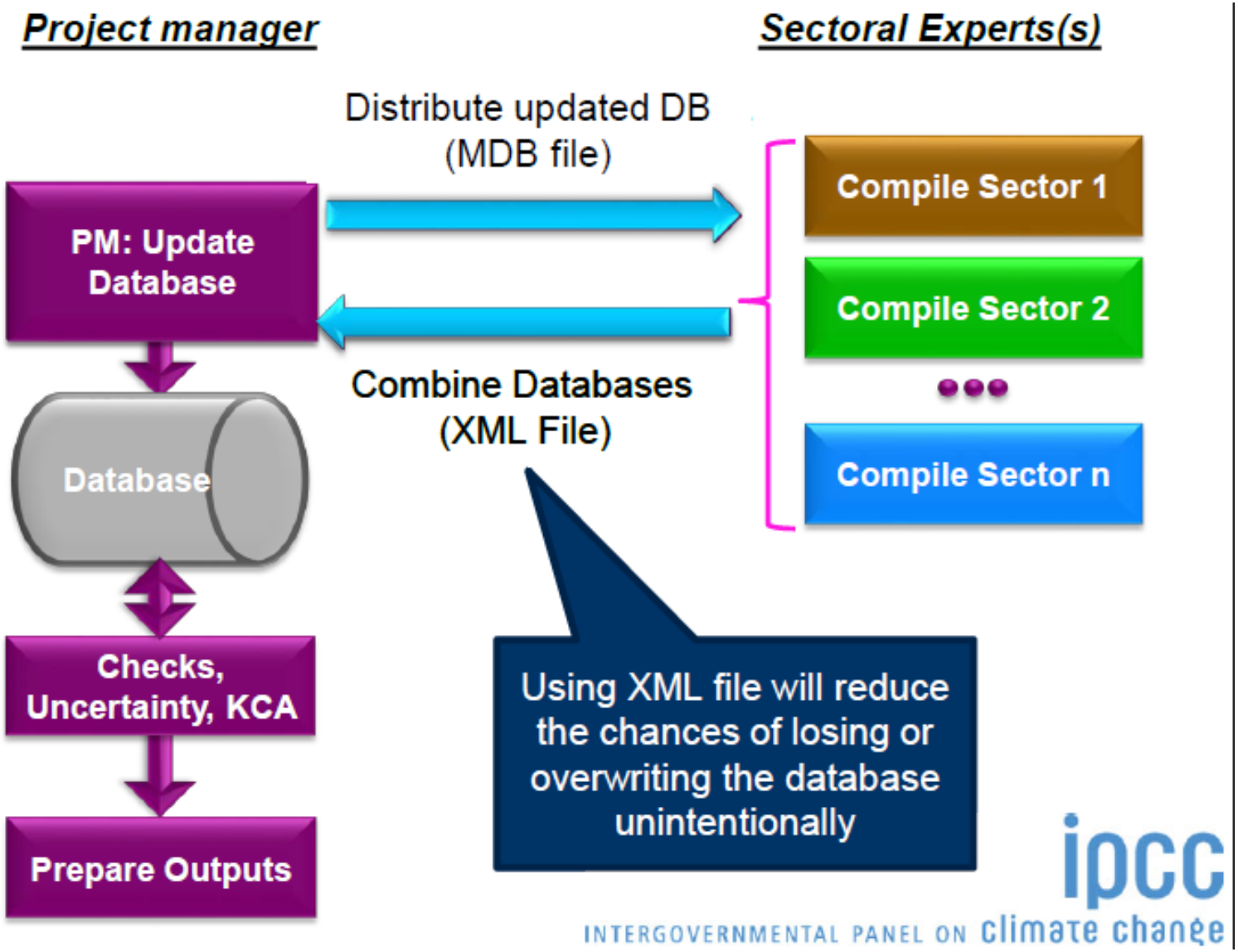


Greenhouse gas source and sink categories	Net CO2 (Gg)	CH4 (Gg)	N2O (Gg)	CO Gg	NOx (Gg)	NMVOCs (Gg)	SOx (Gg)
Total National Emissions and Removals	55670.091	4680.209	154.94	1.249	0.000	0.000	0.000
1 - Energy	50586.136	505.375	2.268	0.000	0.000	0.000	0.000
1A - Fuel Combustion Activities	44029.577	12.634	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 Hexafluorids	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
4F - Prescribed Burning of Savannas		0.000	0.000	0.000	0.000	0.000	0.000

Source

IPCC-TSU side event, 12.2015

Multiple Users



Source

IPCC-TSU side event, 12.2015

IPCC EFDB

Introduction of the IPCC Emission Factor Data Base

Background

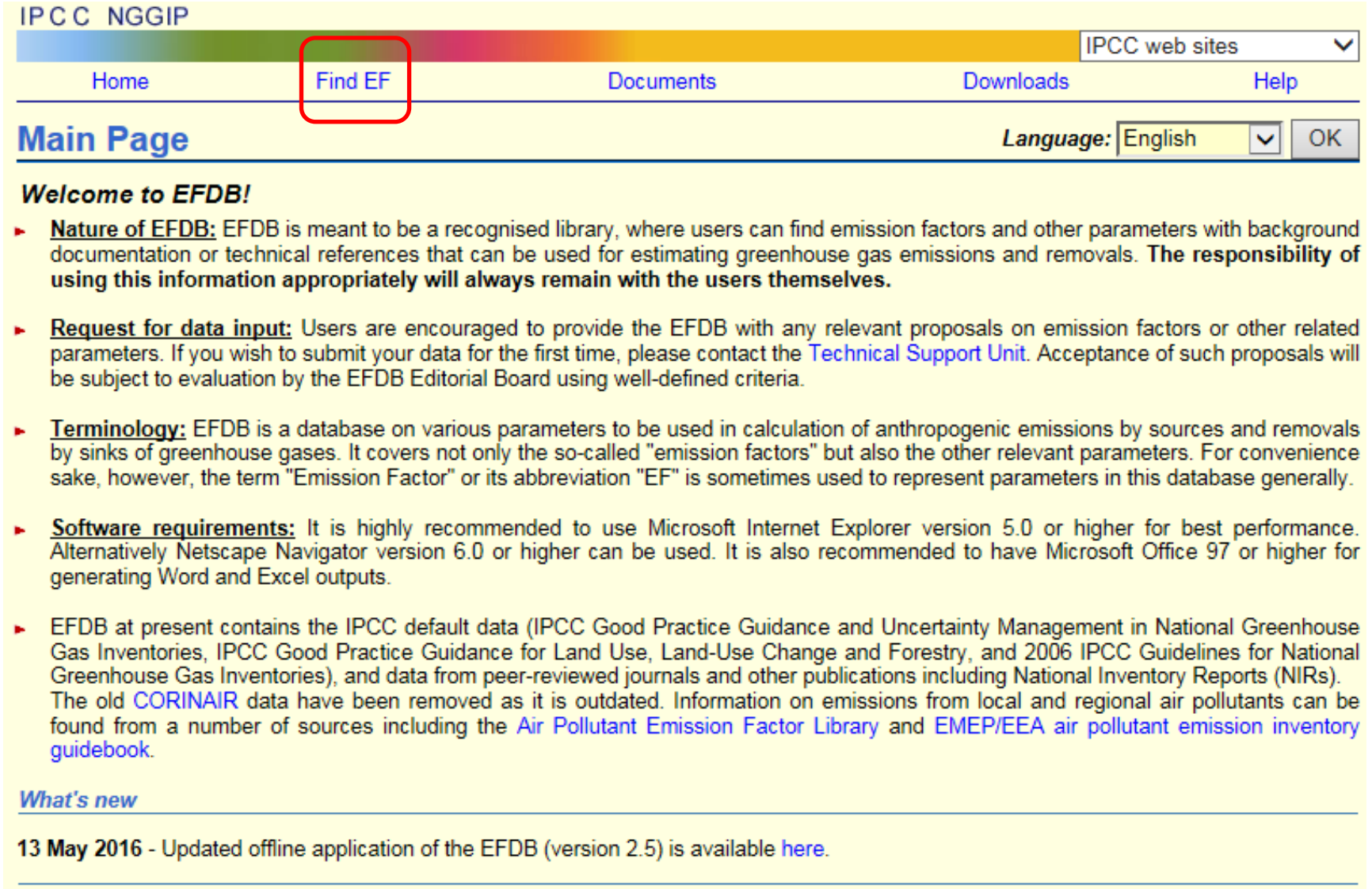
- IPCC Guidelines contain global or regional default values (mostly for Tier 1) based on the best science when guidelines were compiled.
- Higher tier estimates need country-specific factors based on:
  - Situation in country, methods, management etc
  - Latest science and best practice elsewhere
  - Latest mitigation being applied
- However
  - it is expensive to measure all these. It would be more efficient to use appropriate literature or experience in similar situations.
  - Emission factors and other parameters may not be easily accessible..

Introduction of the IPCC Emission Factor Data Base

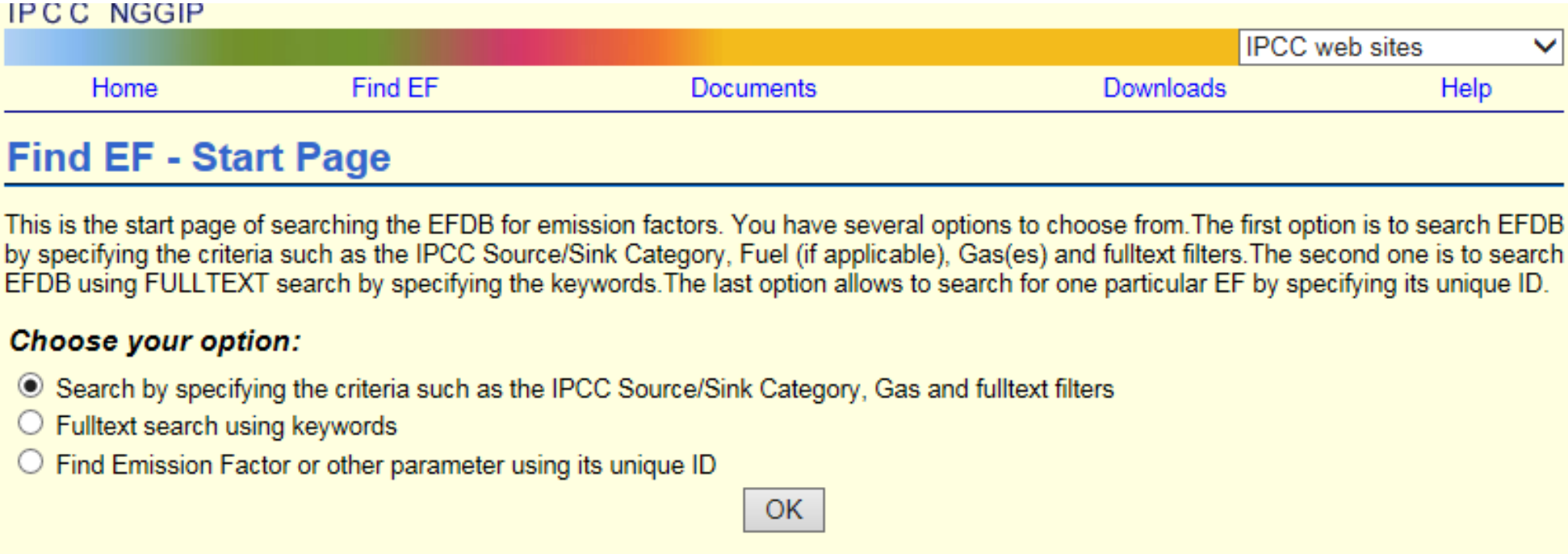
- EFDB is a library
  - Documented Emission Factors (interpreted broadly – all parameters)
    - Peer reviewed
    - Non-peer reviewed (government reports, industry studies etc.)
    - In any language (need English abstract)
  - Available through internet as well as in the form of CDROM
    - http://www.ipcc-nggip.iges.or.jp/EFDB/
  - Data evaluated by Editorial Board

- Emission Factors in EFDB are not equal to the default factor. The user must decide if data is suitable in their specific situation

EFDB snapshot



EFDB snapshot



IPCC NGGIP

Home Find EF Documents

Find EF - Search criteria

Click here for online help.

IPCC Guidelines version: 2006 OK

IPCC Source/Sink Category

- 1: Energy
- 2: Industrial Processes and Product Use
- 3: Agriculture, Forestry, and Other Land Use
- 4: Waste
- 5: Other

Gases

CO2, CH4 & N2O OK

Gas name	Formula	Select gas
CARBON DIOXIDE	CO2	
METHANE	CH4	
NITROUS OXIDE	N2O	
		Apply

IPCC NGGIP

IPCC web sites

Home | Find EF | Documents | Downloads | Help

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Click here for online help.

IPCC Guidelines version: 2006 OK

IPCC Source/Sink Category

Root -> Agriculture, Forestry, and Other Land Use (3) -> Aggregate sources and non-CO2 emissions sources on land (3.C)

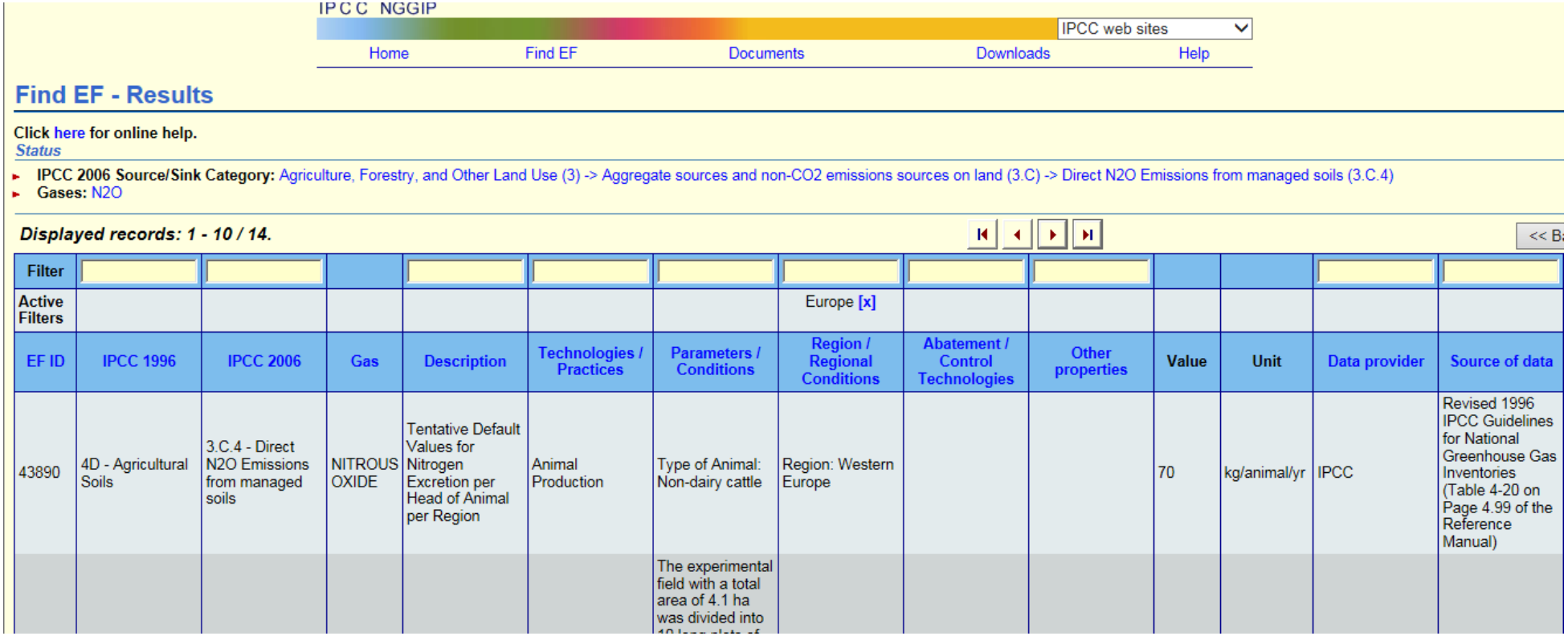
- 3.C.1: Emissions from biomass burning
- 3.C.2: Liming o
- 3.C.3: Urea application o
- 3.C.4: Direct N2O Emissions from managed soils o
- 3.C.5: Indirect N2O Emissions from managed soils o
- 3.C.6: Indirect N2O Emissions from manure management o
- 3.C.7: Rice cultivations o
- 3.C.8: Other (please specify) o

Gases

CO2, CH4 & N2O OK

Gas name	Formula	Select gas
CARBON DIOXIDE	CO2	☐
METHANE	CH4	☐
NITROUS OXIDE	N2O	☐
		Apply

EFDB snapshot



IPCC NGGIP

IPCC web sites

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Status

- **IPCC 2006 Source/Sink Category:** Agriculture, Forestry, and Other Land Use (3) -> Aggregate sources and non-CO2 emissions sources on land (3.C) -> Direct N2O Emissions from managed soils (3.C.4)
- **Gases:** N2O

Displayed records: 1 - 10 / 14.

<< B

Filter													
Active Filters							Europe [x]						
EF ID	IPCC 1996	IPCC 2006	Gas	Description	Technologies / Practices	Parameters / Conditions	Region / Regional Conditions	Abatement / Control Technologies	Other properties	Value	Unit	Data provider	Source of data
43890	4D - Agricultural Soils	3.C.4 - Direct N2O Emissions from managed soils	NITROUS OXIDE	Tentative Default Values for Nitrogen Excretion per Head of Animal per Region	Animal Production	Type of Animal: Non-dairy cattle	Region: Western Europe			70	kg/animal/yr	IPCC	Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (Table 4-20 on Page 4.99 of the Reference Manual)
						The experimental field with a total area of 4.1 ha was divided into							

Preparation of the IPCC Inventory software

Preparation of the IPCC Inventory software

- Please refer “IPCC Inventory Software User Manual Version 2.17”
- Could you set the following information.
  - Country: Moldova
  - Inventory year: 2013
  - Start Inventory year: 1990
  - Common Metrics: AR4
  - Users: Superusers at this moment