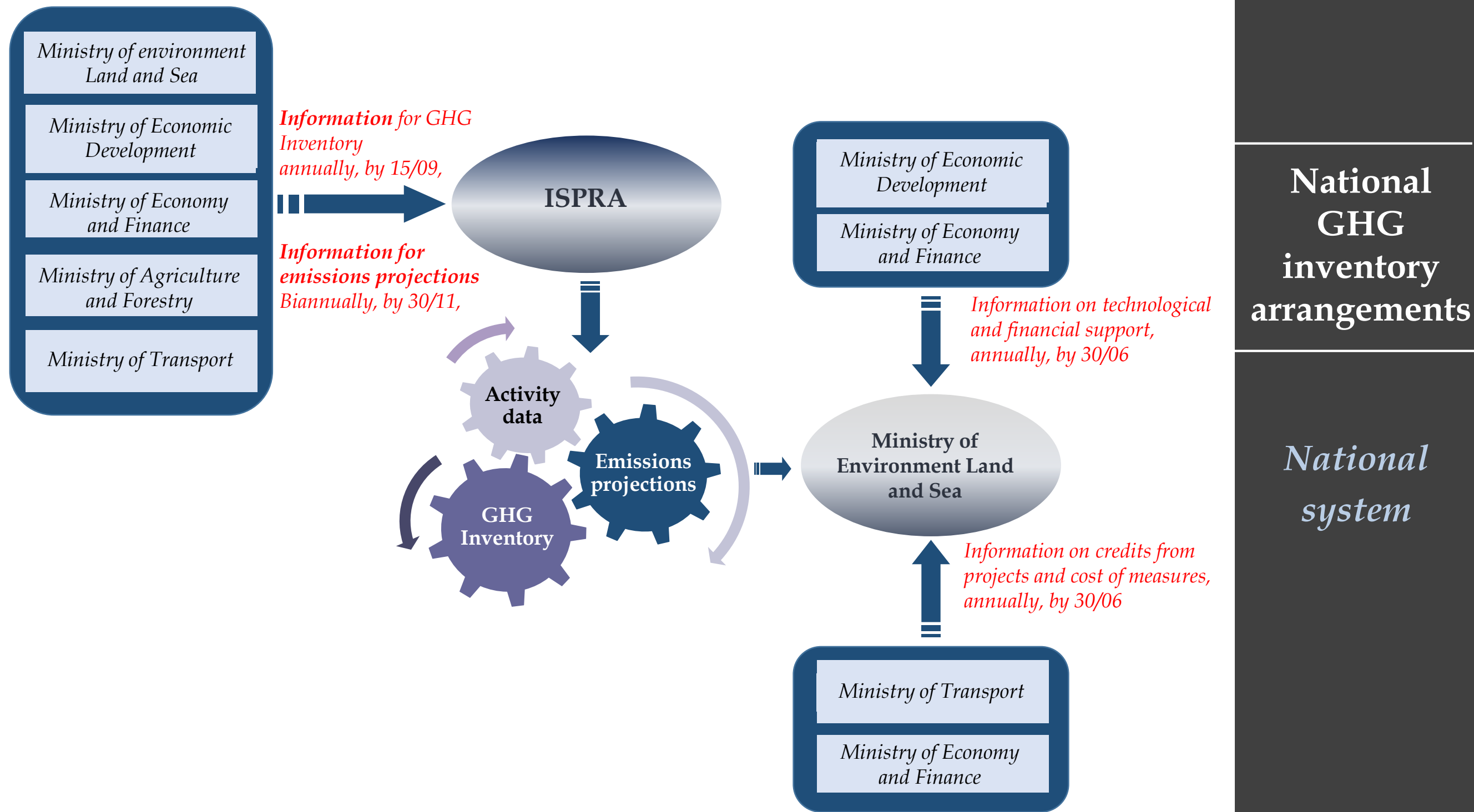




Experience with reporting on quantitative information in GHG inventory

Riccardo De Lauretis

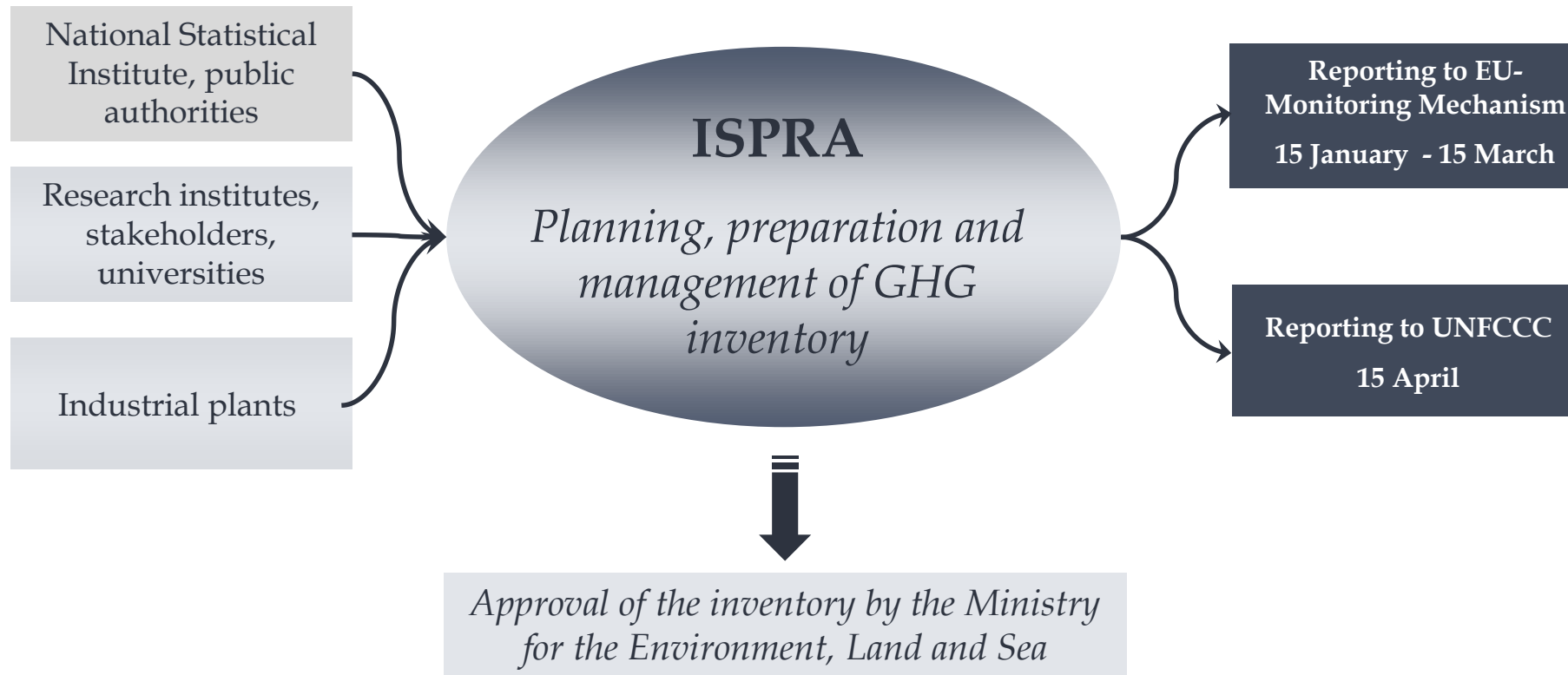
ISPRA - Institute for Environmental Protection and Research



ISPRA is responsible of the national systems system and collect all the information needed to compile the GHG Inventory and for project emissions and removals to be reported in the National Communication and Biennial Report.

In cooperation with Ministry of environment, collects additional data, for the NC/BR, from the competent Ministries on technological and financial support and on credits from international projects.

Data providers



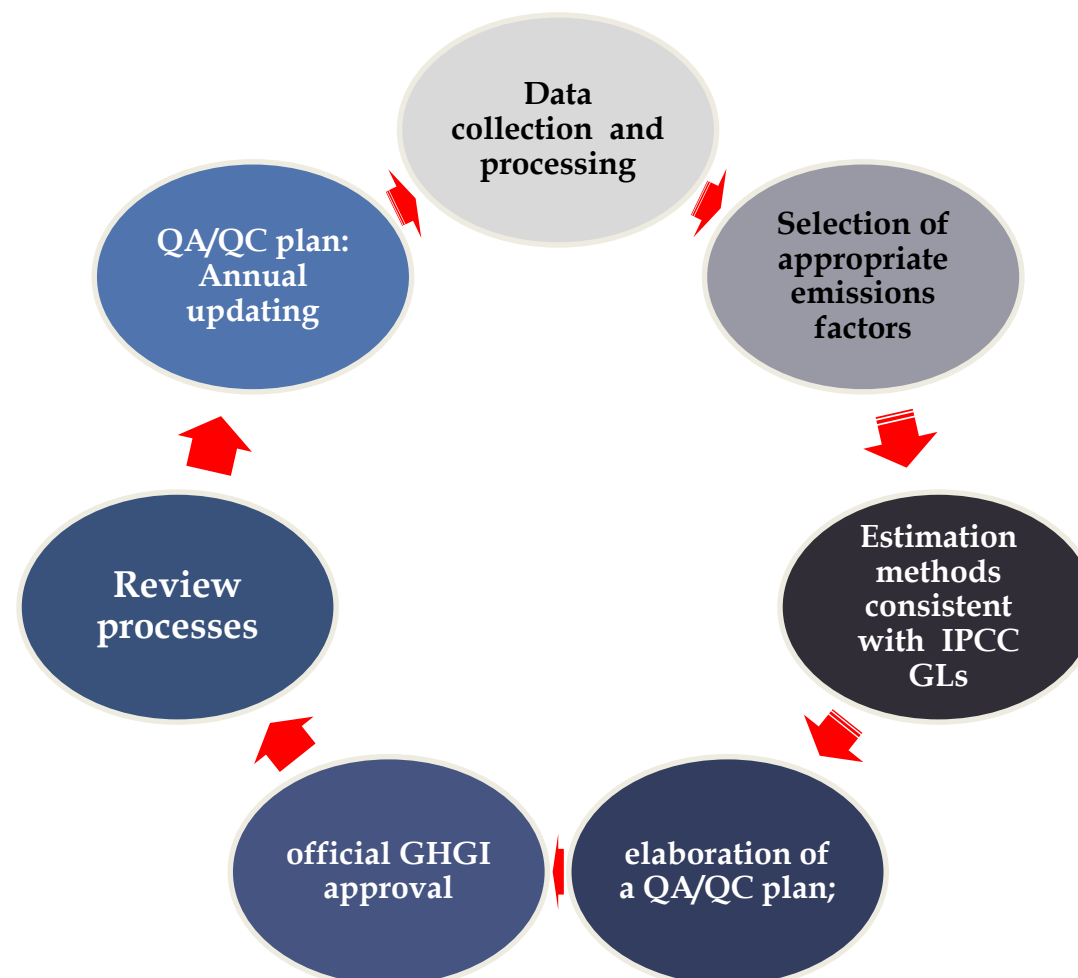
National GHG inventory arrangements

Data management system

Italian GHG inventory team covers all the phases of the process: from data collection to reporting.


The national capacity has grown, in the latest years, training staff and ensuring its sustainability.

The team elaborates the collected data to provides the needed information (disaggregation level, consistency with reporting format, assessment of country specific parameters and emissions factors and uncertainty calculation) .



Italy does not use a unique database to manage the GHG data and to compile the CRF Reporter. To import the GHG estimates into the CRF Reporter, the following procedure is used:

CRF Reporter Inventory Software v6.0.7 | Italy 2019 Inventory #1 Locked



United Nations
Framework Convention on
Climate Change

Administration ▾Inventories ▾Data EntryReporting TablesImport / ExportData Checks ▾Useful Links ▾

Description

- Transfer

- Excel Export - Data Entry

- Sectors/Totals

+ 1. Energy

+ 2. Industrial Processes and Product Use

+ 3. Agriculture

- 4. Land Use, Land-Use Change and Forest Land

4.1 Land Transition Matrix

+ 4(IV) Indirect N2O Emissions from Land Use Change and Forestry

- 4.A Forest Land

- 4.A.1 Forest Land Remaining Forest Land

Please click on one of the links to export data as excel file.

Export selected single grid

Export selected sector / subsector

Export all data entry grids

Compiling the inventory results in a software tool (CRF Reporter)

- fill the relevant excel sheets
- import the excel sheets to populate the CRF Reporter

Description

- Transfer

- Excel Export - Data Entry

+ Sectors/Totals

XML Export

Export reporting tables

Export All QA Checks

Export party profile

My Data Export
























































































Excel / XML - Import

My Data Import

Import CRF Reporter Data
Please select CRF Reporter Data file

Common Reporting Table 4.A

Greenhouse Gas Source and Sink Categories		Activity Data			Implied Carbon-Stock-Change Factors							Changes in Carbon Stock and Net CO ₂ Emissions/Removals from Soils							Net CO ₂ emissions/removals ^{(4) (7)}
Land-use category	Subdivision ⁽¹⁾	Total area ⁽²⁾ (kha)	Area of mineral soil (kha)	Area of organic soil (kha)	Carbon stock change in living biomass per area ^{(3) (4)}			Net carbon stock change in dead wood per area ⁽⁴⁾	Net carbon stock change in litter per area ⁽⁴⁾	Net carbon stock change in soils per area ⁽⁴⁾		Carbon stock change in living biomass ^{(3) (4)}			Net carbon stock change in dead wood ⁽⁴⁾	Net carbon stock change in litter ⁽⁴⁾	Net carbon stock change in soils ^{(5) (6)}		
					Gains	Losses	Net change			Mineral soils ⁽⁵⁾	Organic soils	Gains	Losses	Net change			Mineral soils	Organic soils	
A. Total forest land		9414.64	9414.64	NO	2.47	-1.86	0.61	0.01	0.01	0.03	NO	#####	#####	5752.88	78.38	130.70	238.24	NO	-22734.08
1. Forest land remaining forest land		8082.44	8082.44	NO	2.45	-1.85	0.60	0.01	0.01	NO,NA	NO	#####	#####	4859.16	67.29	112.20	NO,NA	NO	-18475.07
unstocked forest area		214.95	214.95	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
stands		2671.84	2671.84	NO	2.75	-2.13	0.61	0.01	0.02	NA	NO	7346.07	#####	1642.51	23.71	46.42	NA	NO	-6279.68
coppices		4275.28	4275.28	NO	2.41	-1.75	0.66	0.01	0.01	NA	NO	#####	#####	2833.16	38.81	57.48	NA	NO	-10741.30
plantations		149.33	149.33	NO	1.16	-0.71	0.45	0.00	0.01	NA	NO	172.82	-105.95	66.87	0.17	0.85	NA	NO	-248.92
rupicolous and riparian forest		771.04	771.04	NO	2.53	-2.12	0.41	0.01	0.01	NA	NO	1951.82	#####	316.62	4.60	7.46	NA	NO	-1205.16
2. Land converted to forest land ⁽⁸⁾		1332.20	1332.20	NO	2.63	-1.96	0.67	0.01	0.01	0.18	NO	3502.42	#####	893.72	11.09	18.49	238.24	NO	-4259.01
2.1 Cropland converted to forest land		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2.2 Grassland converted to forest land		1332.20	1332.20	NO	2.63	-1.96	0.67	0.01	0.01	0.18	NO	3502.42	#####	893.72	11.09	18.49	238.24	NO	-4259.01
2.3 Wetlands converted to forest land		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2.4 Settlements converted to forest land		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2.5 Other land converted to forest land		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

 Foglio1 (4.A)	 Foglio30 (4.A. 1 Wildfires)	 Foglio25 (4.A. 1 Biomass Burning)	 Foglio61 (4.A. 1 Total Organic Soils)
 Foglio10 (4.A. 1.i stands)	 Foglio31 (4.A. 2)	 Foglio26 (4.A. 1 Biomass Burning)	 Foglio62 (4.A. 1 Total Organic Soils)
 Foglio11 (4.A. 1.i coppices)	 Foglio32 (4.A. 2)	 Foglio27 (4.A. 1 Controlled Burning)	 Foglio63 (4.A. 1. 1 Drained Organic Soils)
 Foglio12 (4.A. 1.i coppices)	 Foglio33 (4.A. 2 Carbon stock change)	 Foglio28 (4.A. 1 Controlled Burning)	 Foglio64 (4.A. 1. 1 Drained Organic Soils)
 Foglio13 (4.A. 1.i plantation)	 Foglio34 (4.A. 2 Carbon stock change)	 Foglio29 (4.A. 1 Wildfires)	 Foglio65 (4.A. 1.2 Rewetted Organic Soils)
 Foglio14 (4.A. 1.i plantatio	 Foglio35 (4.A. 2. 1)	 Foglio3 (4.A. 1)	 Foglio66 (4.A. 1.2 Rewetted Organic Soils)
 Foglio15 (4.A. 1.i rupicolous	 Foglio36 (4.A. 2. 1)	 Foglio30 (4.A. 1 Wildfires)	 Foglio67 (4.A. 1.3 Other Organic Soils)
 Foglio16 (4.A. 1.i rupicolou	 Foglio37 (4.A. 2.2)	 Foglio31 (4.A. 2)	 Foglio68 (4.A. 1.3 Other Organic Soils)
 Foglio17 (4.A. 1 Direct N2O	 Foglio38 (4.A. 2.2)	 Foglio32 (4.A. 2)	 Foglio69 (4.A. 2 Total Mineral Soils)
 Foglio18 (4.A. 1 Direct N2C	 Foglio39 (4.A. 2.3)	 Foglio33 (4.A. 2 Carb	 Foglio7 (4.A. 1.i unstocked forest area)
 Foglio19 (4.A. 1 Inorganic N	 Foglio4 (4.A. 1)	 Foglio34 (4.A. 2 Car	 Foglio70 (4.A. 2 Total Mineral Soils)
 Foglio2 (4.A)	 Foglio40 (4.A. 2.3)	 Foglio35 (4.A. 2. 1)	 Foglio71 (4.A. 2. 1 Rewetted Mineral Soils)
 Foglio20 (4.A. 1 Inorganic I	 Foglio41 (4.A. 2.4)	 Foglio36 (4.A. 2. 1)	 Foglio72 (4.A. 2. 1 Rewetted Mineral Soils)
 Foglio21 (4.A. 1 Organic N F	 Foglio42 (4.A. 2.4)	 Foglio37 (4.A. 2.2)	 Foglio73 (4.A. 2.2 Other Minaral Soils)
 Foglio22 (4.A. 1 Organic N	 Foglio43 (4.A. 2.5)	 Foglio38 (4.A. 2.2)	 Foglio74 (4.A. 2.2 Other Minaral Soils)
 Foglio23 (4.A. 1 Mineralizati	 Foglio44 (4.A. 2.5)	 Foglio39 (4.A. 2.3)	 Foglio8 (4.A. 1.i unstocked forest area)
 Foglio24 (4.A. 1 Mineraliza	 Foglio45 (4.A. 2 Direct N2i	 Foglio4 (4.A. 1)	 Foglio9 (4.A. 1.i stands)
 Foglio25 (4.A. 1 Biomass Bur	 Foglio46 (4.A. 2 Direct N.	 Foglio40 (4.A. 2.3)	
 Foglio26 (4.A. 1 Biomass Bi	 Foglio47 (4.A. 2 Inorganic	 Foglio41 (4.A. 2.4)	
 Foglio27 (4.A. 1 Controlled f	 Foglio48 (4.A. 2 Inorgani	 Foglio42 (4.A. 2.4)	
 Foglio28 (4.A. 1 Controlled	 Foglio49 (4.A. 2 Organic N	 Foglio43 (4.A. 2.5)	
 Foglio29 (4.A. 1 Wildfires)	 Foglio5 (4.A. 1 Carbon sto	 Foglio44 (4.A. 2.5)	
 Foglio3 (4.A. 1)	 Foglio50 (4.A. 2 Organic		
	 Foglio51 (4.A. 2 Mineraliza		
	 Foglio52 (4.A. 2 Mineraliz		

One CRF table, with 4 subdivisions, results in 75 sheets in the export file from the CRF Reporter!

Compiling the inventory results in a software tool (CRF Reporter)

The IPCC 2006 Guidelines basically keep the same methodological approach of the 1996 Guidelines, updating emission factors and parameters to be used in the estimation of GHG emissions and removals, with the following key exceptions.

Transition to the use of the 2006 Guidelines

Energy

- Treatment of CO₂ capture and storage (CCS)
- CH₄ from abandoned coal mines
- Catalytic converters using urea
- Uncontrolled combustion and burning of coal deposits

IPPU

- new categories (i.e. production of lead, zinc, titanium dioxide and liquid crystal display (LCD) manufacturing; caprolactam, glyoxal and glyoxylic acid production; petrochemical and carbon black production
- new gases: NF₃, SF₅CF₃, halogenated ethers, sulphur hexafluoride and per-fluorocarbons from other product use

Agriculture

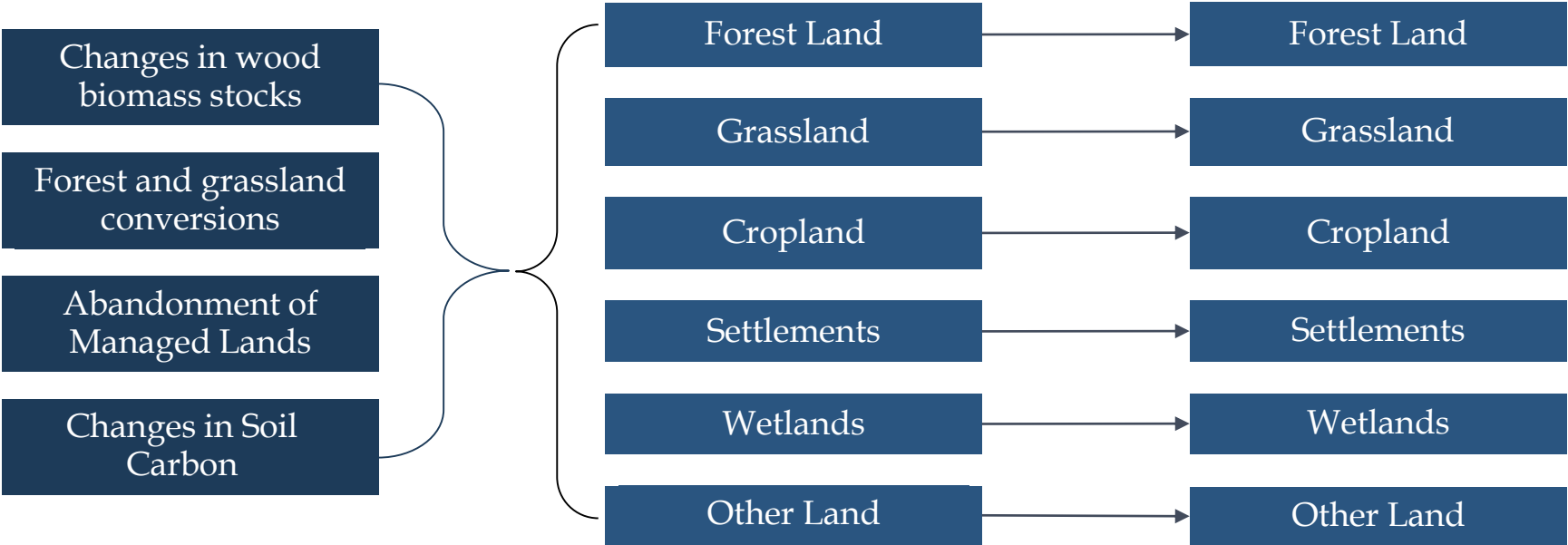
- Indirect NO₂ from manure management
- CO₂ emissions from urea application

Waste

- Revised methodology for methane from landfills, guidance on carbon accumulation in landfills, guidance on biological treatment and open burning of waste
- The “tier 0” methodology is no longer in use
- Added: uncategorized waste disposal sites, biological treatment of solid waste

1996 Guidelines - LUCF

GPG-LULUCF 2003



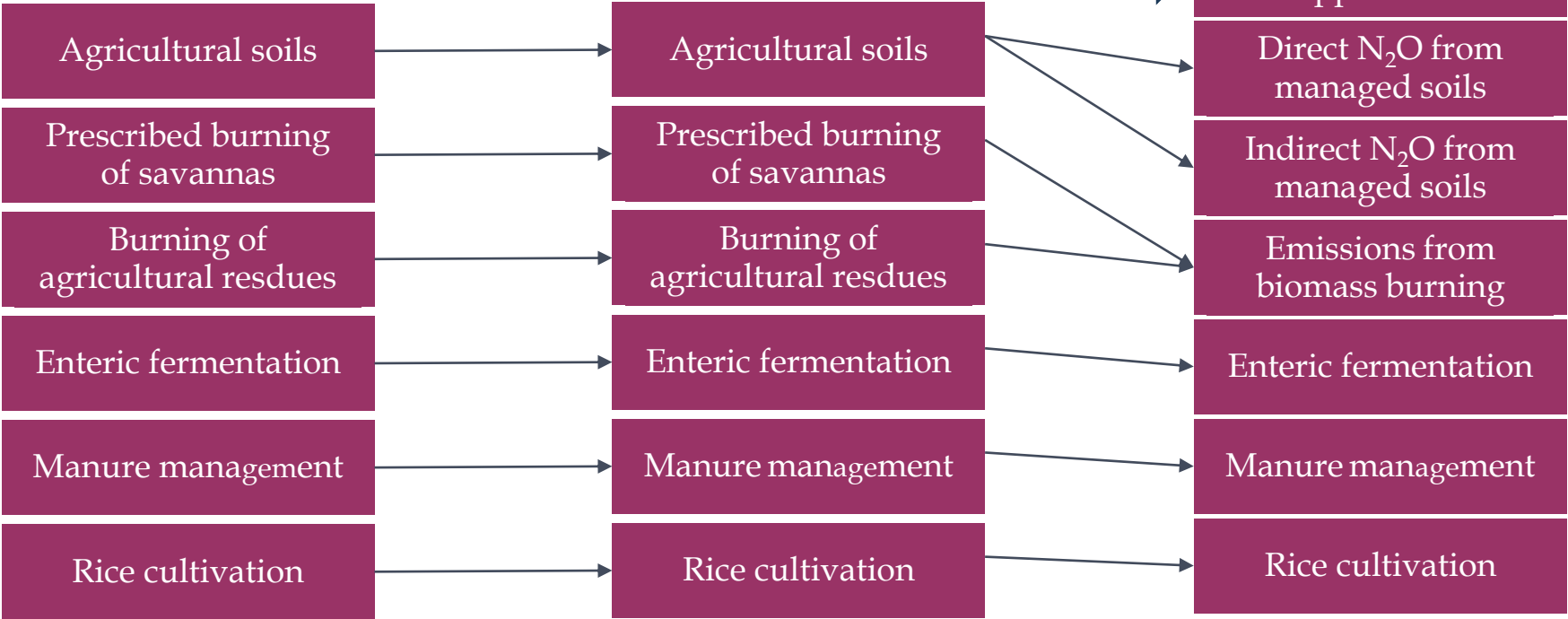
Transition to the use of the 2006 Guidelines

2006 Guidelines (AFOLU)

LULUCF

1996 Guidelines

GPG 2000

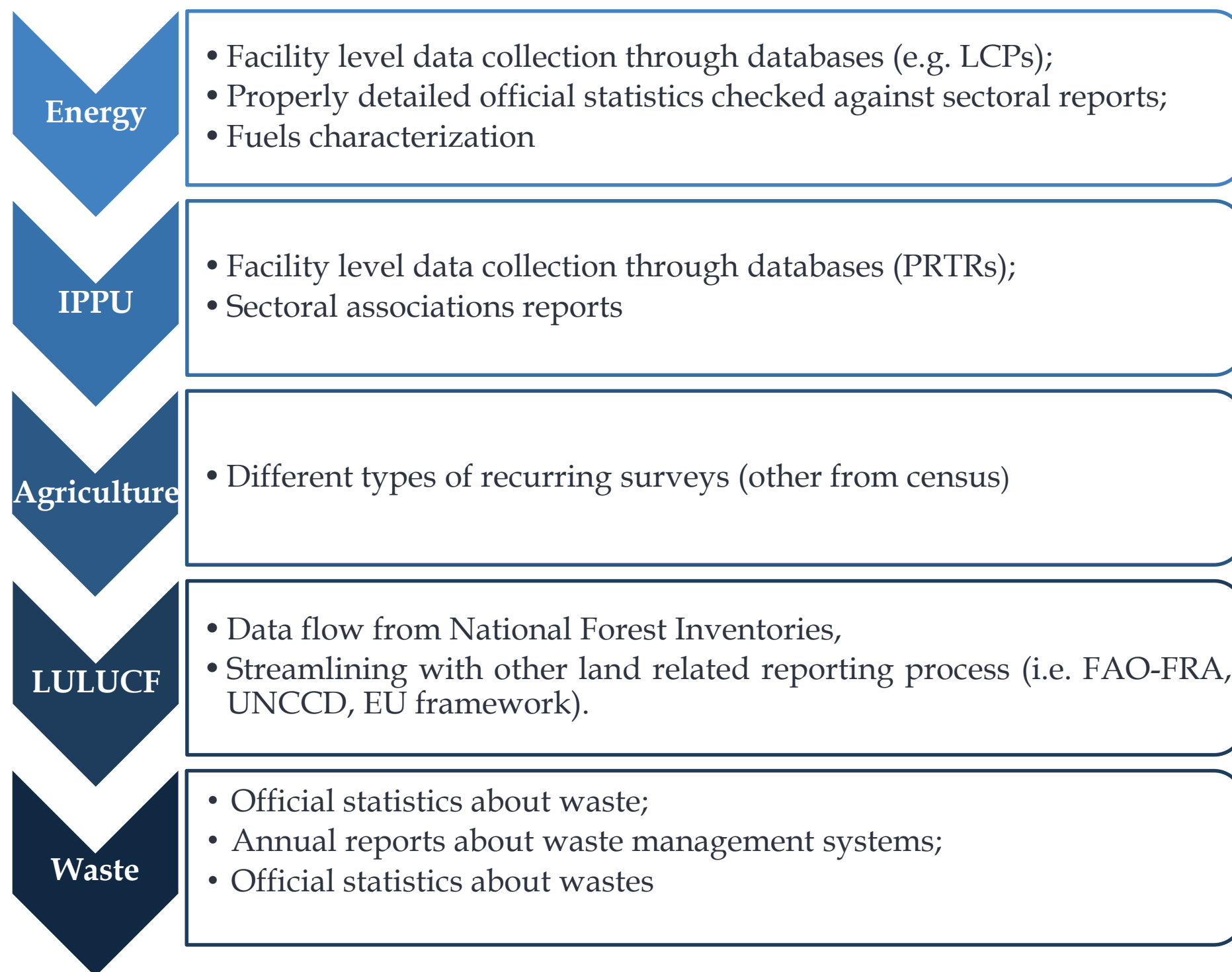


Managed land is used in these guidelines as a proxy for identifying anthropogenic emissions by sources and removals by sinks

All carbon pools are considered; assessment methods for all land use categories.

Provision of methods regarding harvested wood products (HWP)

Tools can also be a result of national legislation strengthening/improving amount and the detail of data collections



**Transition to
the use of the
2006
Guidelines**

Thank you

