



# Knowledge Innovation Project on an Integrated System of Natural Capital and Ecosystem Services Accounting (KIP INCA) – update on progress

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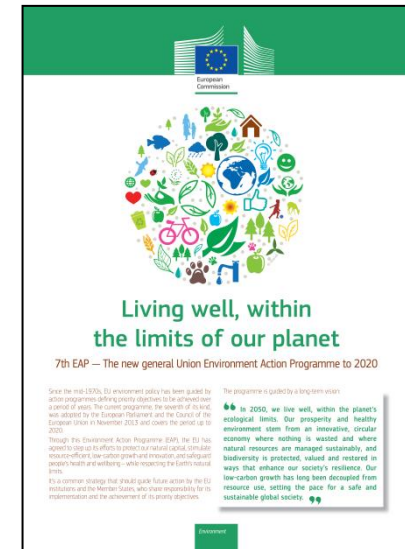
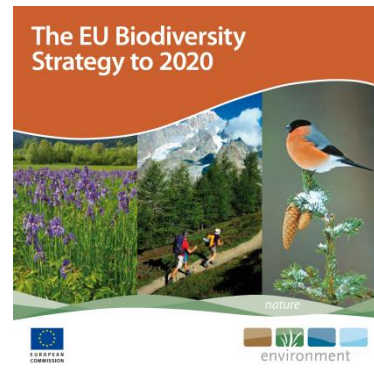
Eurostat

**12<sup>th</sup> meeting of the UN Committee of Experts  
on Environmental-Economic Accounting**

**19 - 21 June 2017**

# Policy context

- Sustainable Development Goals
- EU 7<sup>th</sup> Environmental Action Plan
- EU Biodiversity strategy to 2020
- EU Action Plan for nature, people and the economy





European Commission

# SDGs

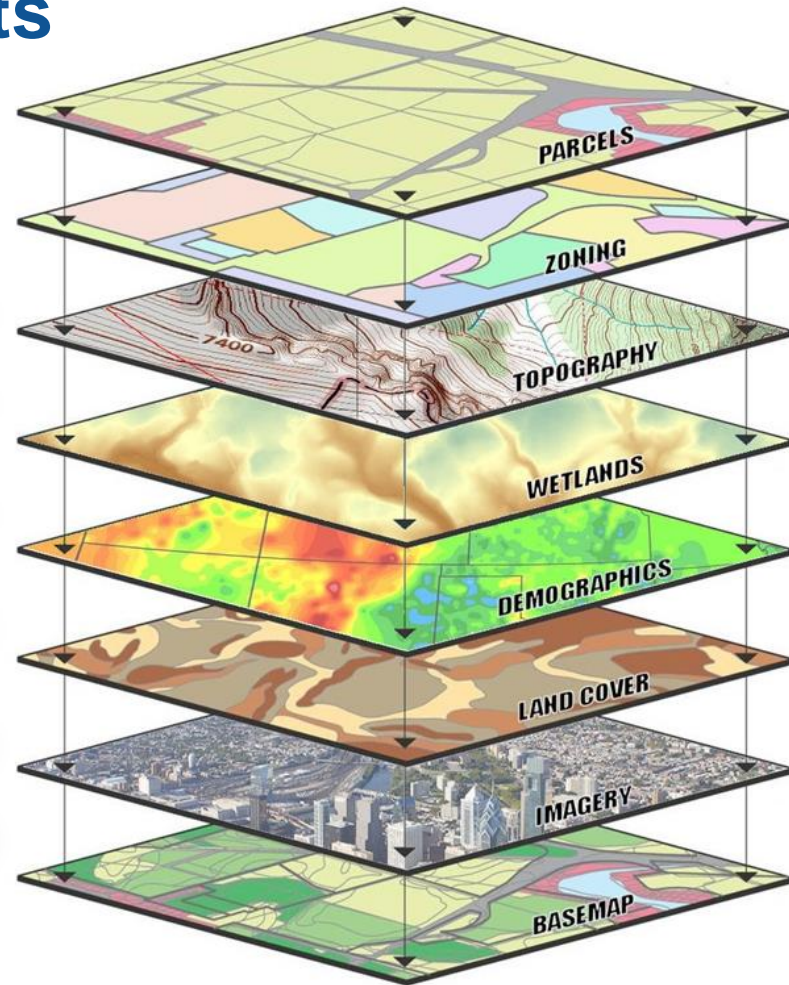
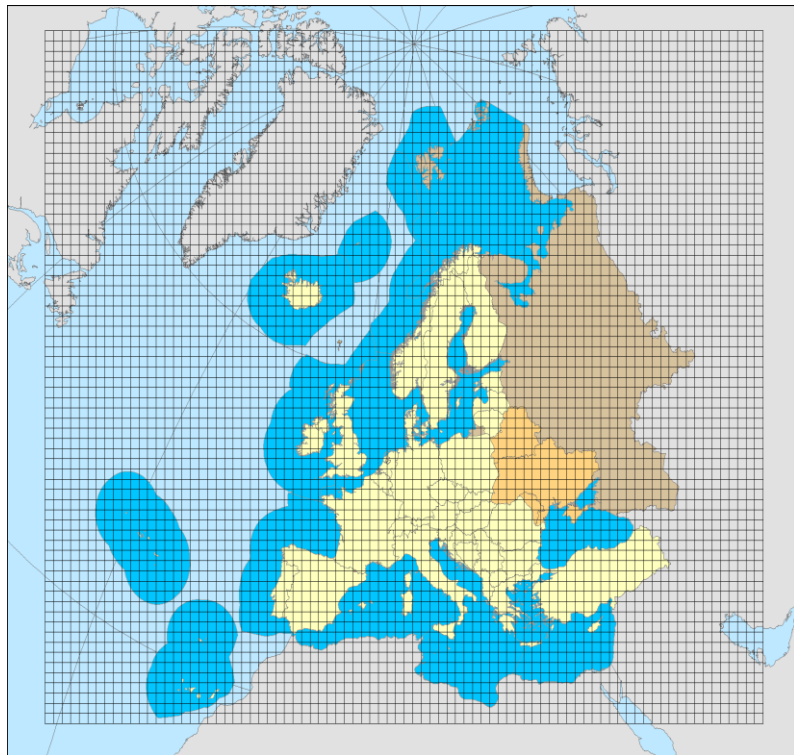


# Project KIP INCA

Building on existing EU-wide exercise and EU MS experience, KIP INCA aims to:

- **Address EU policy needs** linked to ecosystems and natural capital, and strengthen the knowledge base for the implementation of the 7<sup>th</sup> EAP;
- **Integrate existing EU data sources** and MS reporting exercises; identify gaps and needs for adjustment;
- Further **harmonise ecosystem accounting activities** across EU MS;
- **Test and advance international environmental accounting** guidelines (SEEA EEA)

# Combining different data sets



**Eurostat :**

Expertise in geospatial-statistical data integration and knowledge of SEEA

**KIP INCA  
partners**

**EEA:**

The main data processing partner, principal information provider on the state of the EU environment

**DG Environment:**

Provides policy context, manages MAES and is the principal user of KIP INCA outputs



**DG Research and Innovation:**

Coordination between KIP INCA and EU research activities

**EC Joint Research Centre:**

Operation of information systems, expertise in the modelling of ecosystem services

# KIP INCA completed Phase 1 and in July 2016 got approval for Phase 2

- Main achievements of Phase 1 (09/15 – 06/16):

- Building a partnership
- Assessment of policy needs
- Inventory and gap analysis of existing data and tools
- Preliminary accounts (ecosystem extent, some services)
- A detailed case study – Limburg province (NL)
- Proposal for Phase 2 (in 3 levels of ambition)

- Details of achievements and next steps:

- Report on KIP INCA Phase 1  
([http://ec.europa.eu/environment/nature/capital\\_accounting/pdf/KIP\\_INCA\\_final\\_report\\_phase-1.pdf](http://ec.europa.eu/environment/nature/capital_accounting/pdf/KIP_INCA_final_report_phase-1.pdf))



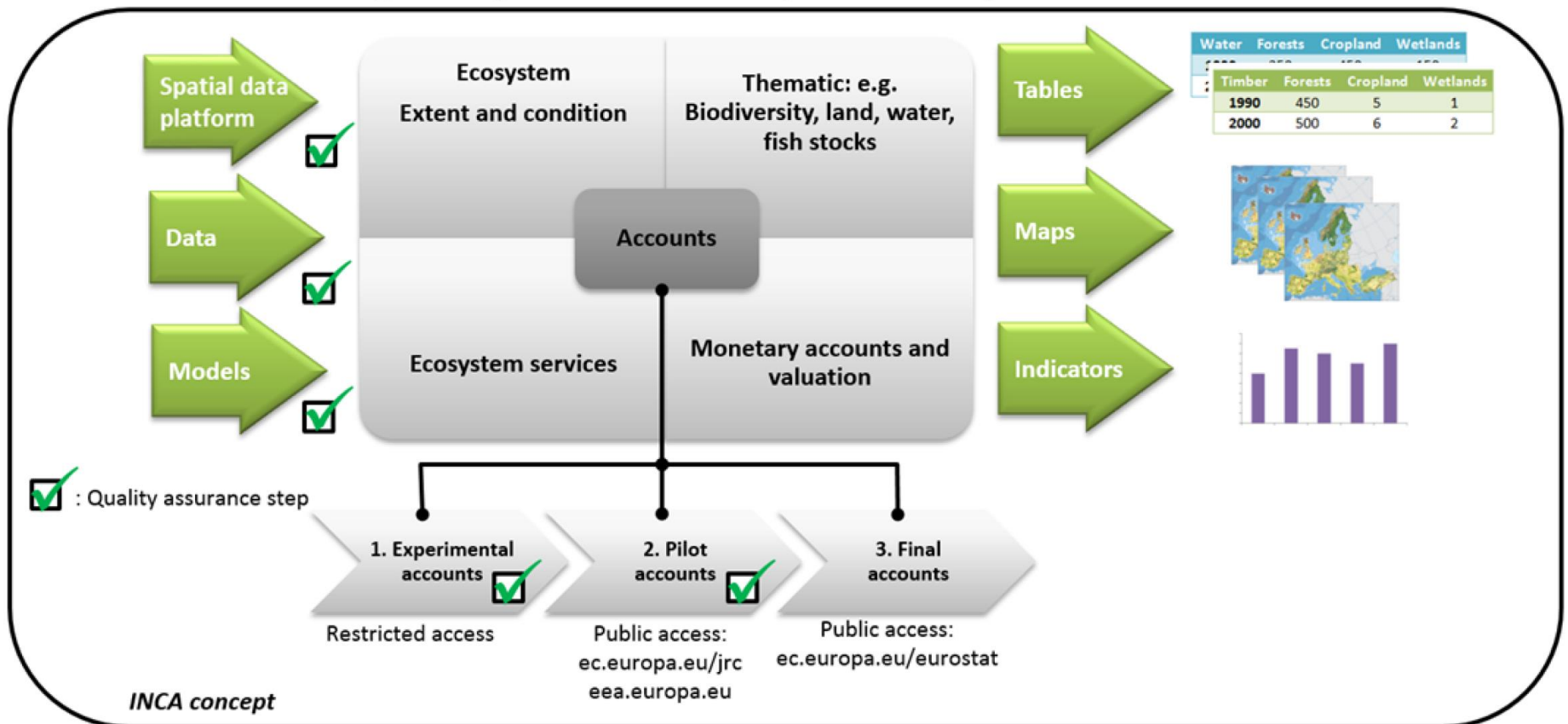
## Phase 2 (until 2020)

- **Proposal – level of ambition 2:**
  - Dedicated **grant programme for researchers with administrations** (Horizon 2020) and **NSIs** (Eurostat grants);
  - **Enhanced ecosystem extent and ecosystem condition accounts;**
  - **Physical accounts for a comprehensive set of ecosystem services** (provisioning of crops, timber and fish; air filtration, water purification, carbon sequestration, recreation, simplified accounts on flood protection);
  - **Monetary accounts for priority services** (e.g. pollination, recreation, water purification);
  - **Advancing work on marine ecosystem services;**
  - **Experimental work on monetary ecosystem asset accounts, ecosystem capacity accounts and integrated accounts.**



# Proposed INCA data architecture

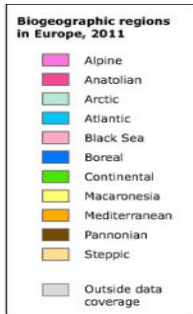
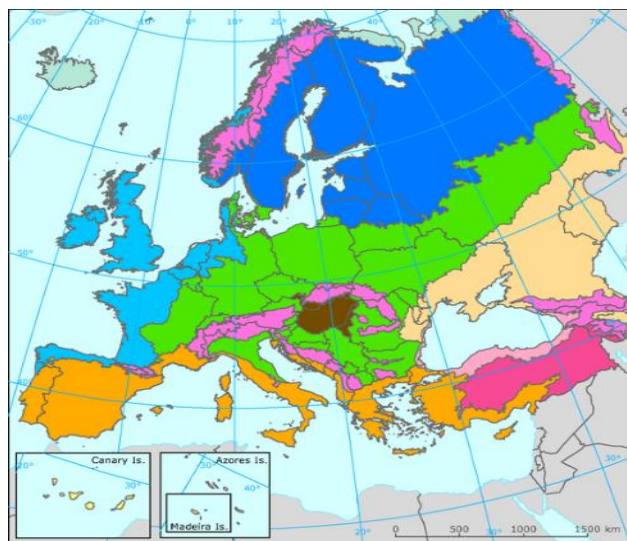
## INCA: Integrated System of Natural Capital and Ecosystem Services Accounts



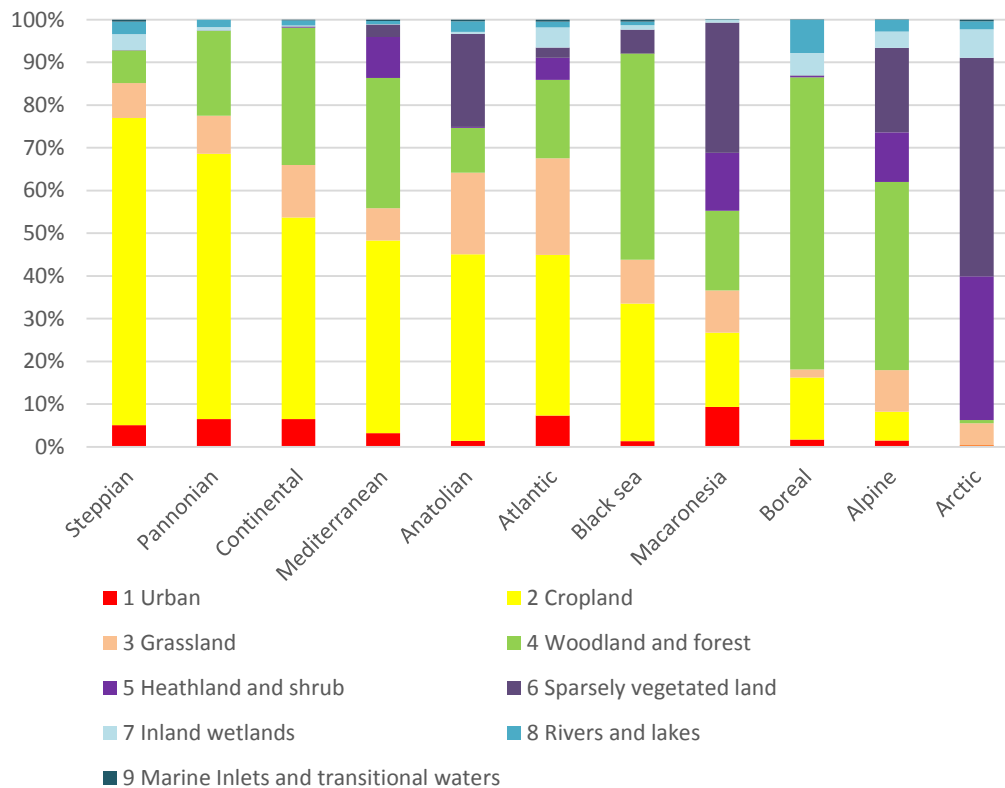


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# Mapping ecosystem extent (example: by biogeographic regions)

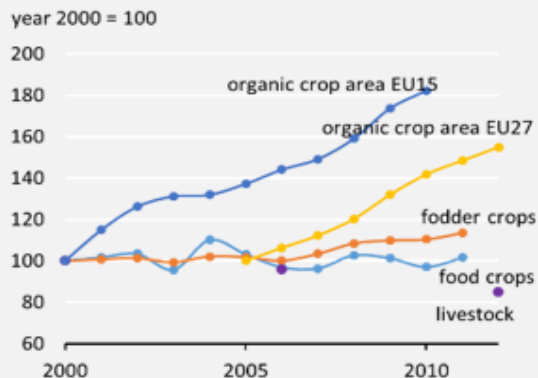


## Percentage of MAES ecosystem type per Biogeographic region in 2012

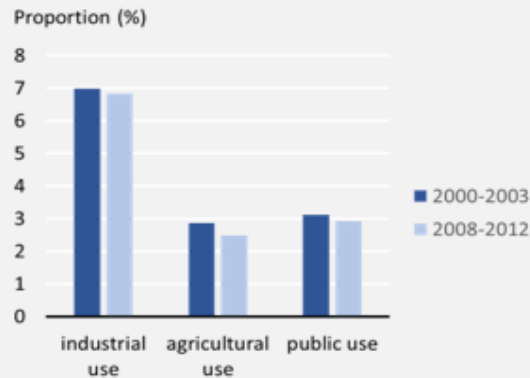


Area in KM2	MAES ecosystem types									Total
	1 Urban	2 Cropland	3 Grassland	4 Woodland and forest	5 Heathland and shrub	6 Sparsely vegetated land	7 Inland wetlands	8 Rivers and lakes	9 Marine Inlets and transitional waters	
<b>Alpine</b>										
Ecosystem extent 2006	9,364	43,982	63,075	286,073	75,773	128,210	24,596	18,235	72	649,380
Reductions to 2006 ecosystem extent	28	79	59	3,590	13	65	6	2	0	3,841
Additions to 2006 ecosystem extent	178	26	46	3,478	3	104	1	6	0	3,841
Stable ecosystem stock	9,336	43,902	63,016	282,483	75,760	128,146	24,591	18,233	72	645,539
Net additions to ecosystem extent	150	-53	-13	-112	-10	39	-5	4	0	0
Net additions as % of 2006	1.60	-0.12	-0.02	-0.04	-0.01	0.03	-0.02	0.02	0.00	0.00
Ecosystem extent 2012	9,514	43,928	63,062	285,961	75,763	128,249	24,591	18,239	72	649,380
<b>Anatolian</b>										
Ecosystem extent 2006	5,370	183,635	80,823	43,928	833	91,867	1,805	10,154	1,686	420,102
Reductions to 2006 ecosystem extent	150	525	399	171	4	200	31	43	1	1,525
Additions to 2006 ecosystem extent	594	296	93	211	0	12	19	294	6	1,525
Stable ecosystem stock	5,221	183,110	80,424	43,757	829	91,666	1,774	10,111	1,684	418,577
Net additions to ecosystem extent	444	-229	-306	41	-4	-188	-13	251	5	0
Net additions as % of 2006	8.27	-0.12	-0.38	0.09	-0.49	-0.20	-0.71	2.47	0.28	0.00
Ecosystem extent 2012	5,815	183,407	80,517	43,968	829	91,678	1,793	10,405	1,691	420,102

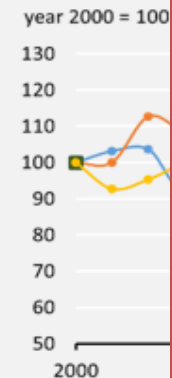
# Food and fodder



# Water



# Material energy



JRC SCIENCE AND POLICY REPORT

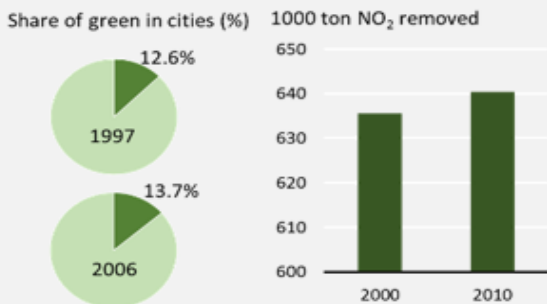
## Mapping and Assessment of Ecosystems and their Services

*Trends in ecosystems and ecosystem services in the European Union between 2000 and 2010*  
Draft – 27-02-2015

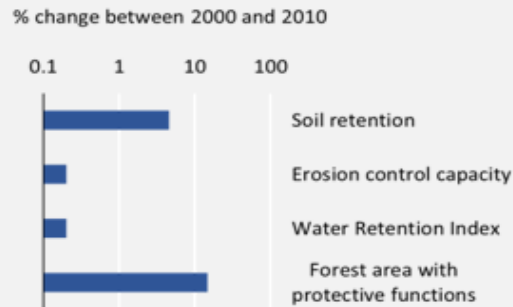
Joachim Maas, Nina Fabrega, Grazia Zulian, Ana Barbosa Pilar Yzquierdo, Eva Jütt, Chiara Polce, Ine Vandecasteele, Inés Mari Rivera, Carlos Guerra, Carolina Peppia Carallo, Sara Vallejo, Claudia Baranzelli, Ricardo Barranco, Filipe Batista e Silva, Chris Jacobo-Crispin, Marco Trombetti, Carlo Lavalle

2015

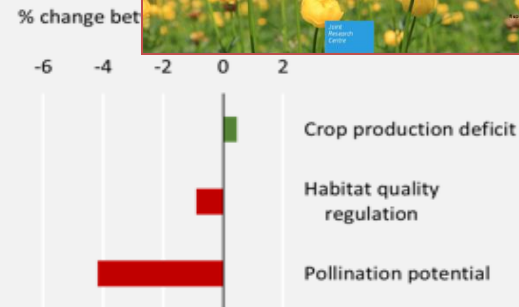
# Air quality regulation (in cities)



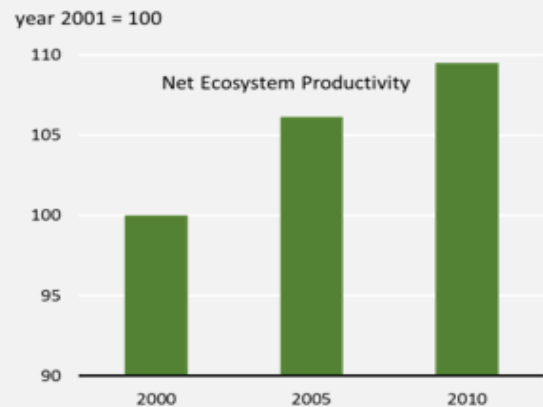
# Erosion control and water regulation



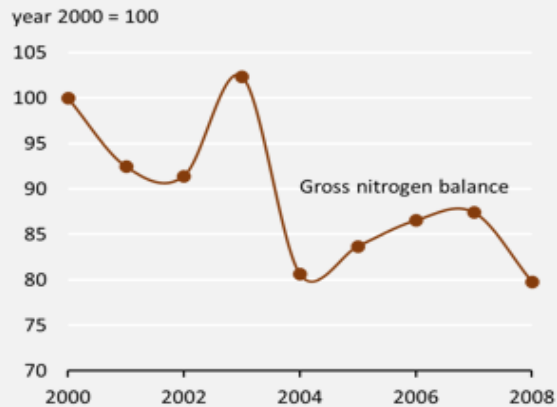
# Habitat pollinat



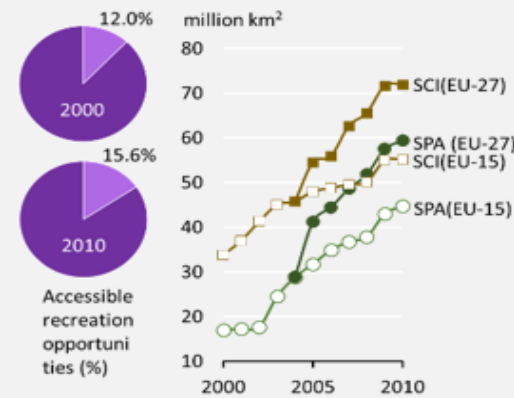
# Climate regulation



# Soil formation and composition



# Recreation





European  
Commission

**Thank you!**