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# Acting on indirect drivers: Experience from the EU

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# Biodiversity related EEA activities

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- State and Outlook reporting (2005, 2010 in preparation)
- SEBI indicator development
- Natura2000 reporting (designation and conservation status)
- Baseline supporting post 2010 targets
- Accounting methodology
- EURECA (European Ecosystem Assessment 2012)
- Spatial analyses (e.g. HNV farmland)
- Forward-looking studies (e.g. PRELUDE)



# This presentation

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- **CBD proposed targets indirect drivers**
- Conceptual aspects
- EU policy framework
- Example high nature value farmland (cf. Satoyama initiative)
- **Conclusions**



# Indirect driver targets

(CBD draft strat plan)

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- Everyone is aware of the value of biodiversity and what steps they can take to protect it.
- The values of biodiversity, ... are recognized and reflected by all countries in their ... policies and strategies... and by the private sector.
- Subsidies harmful to biodiversity are eliminated.
- Government and stakeholders at all levels ... implement sustainable plans to increase efficiency, reduce waste, and maintain the use of resources within ecological limits.



# Indirect divers?

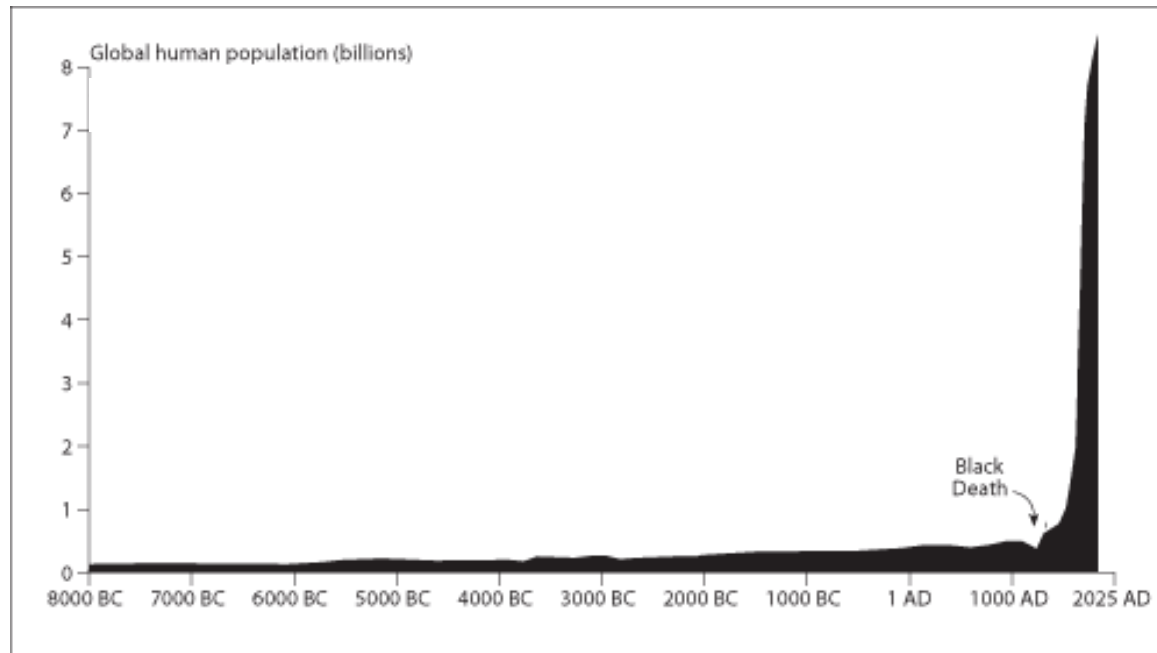
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- Population change
- Lifestyle changes
- Consumption pattern
- Production/trade patterns
- Technological development
- Climate change
- Governance (incl. spatial planning)



# Human population growth

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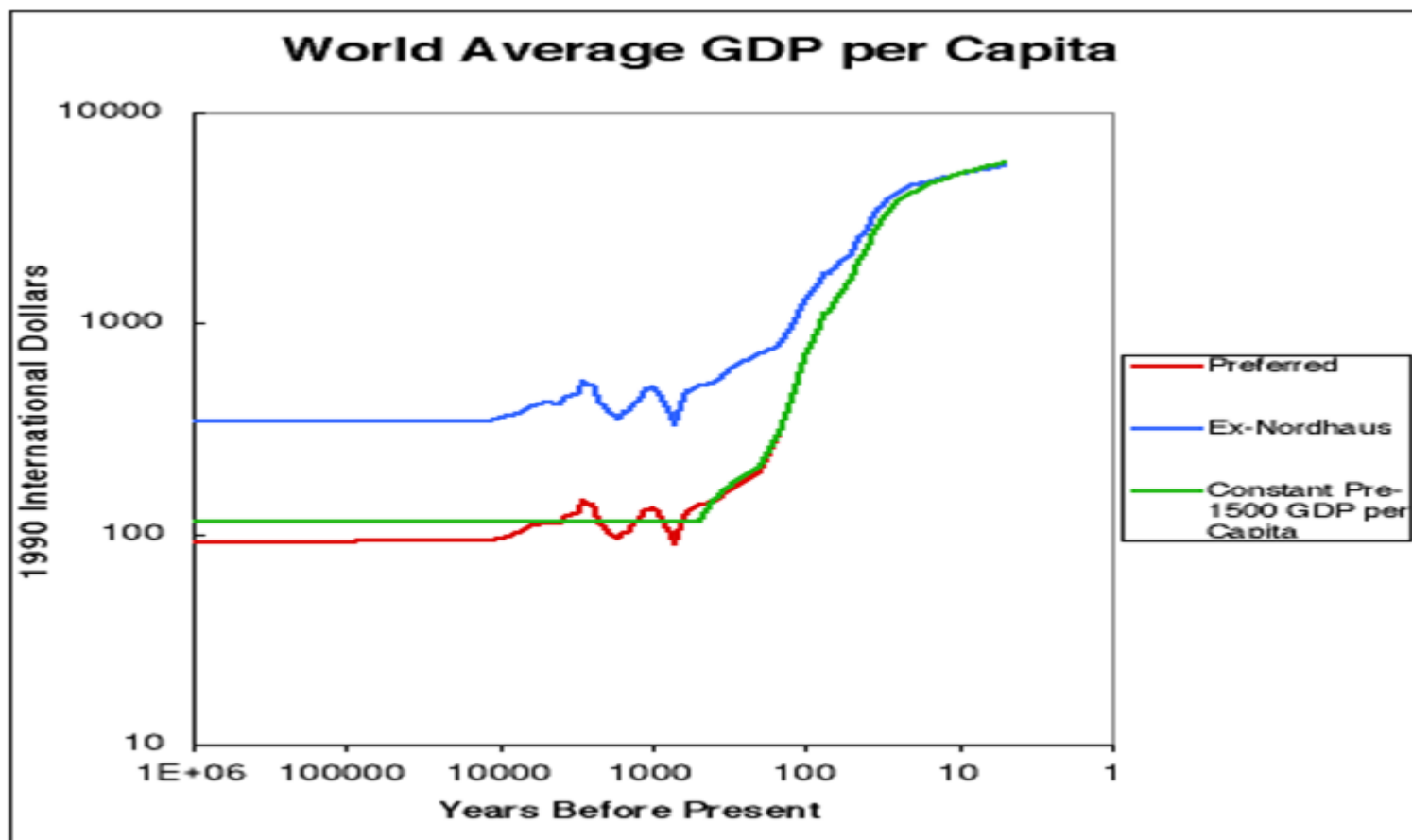


Source: G.G. Marten, 2001. Human Ecology - Basic Concepts for Sustainable Development

<http://www.gerrymarten.com/human-ecology/chapter03.html>



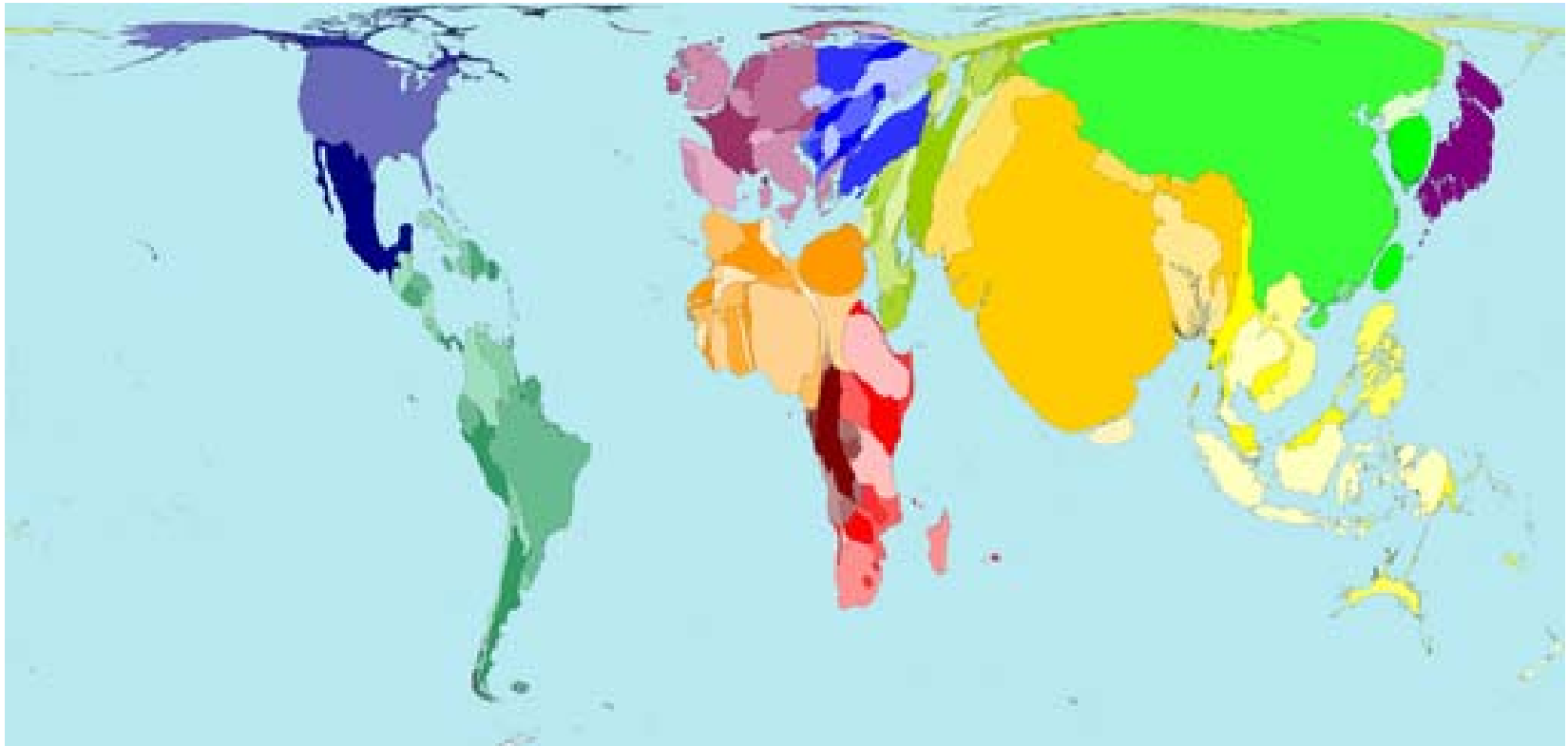
# World GDP history



Source: J. Bradford DeLong, 1998. Department of Economics, U.C. Berkeley.  
[http://www.j-bradford-delong.net/TCEH/1998\\_Draft/World\\_GDP/Estimating\\_World\\_GDP.html](http://www.j-bradford-delong.net/TCEH/1998_Draft/World_GDP/Estimating_World_GDP.html)

# Population 2050

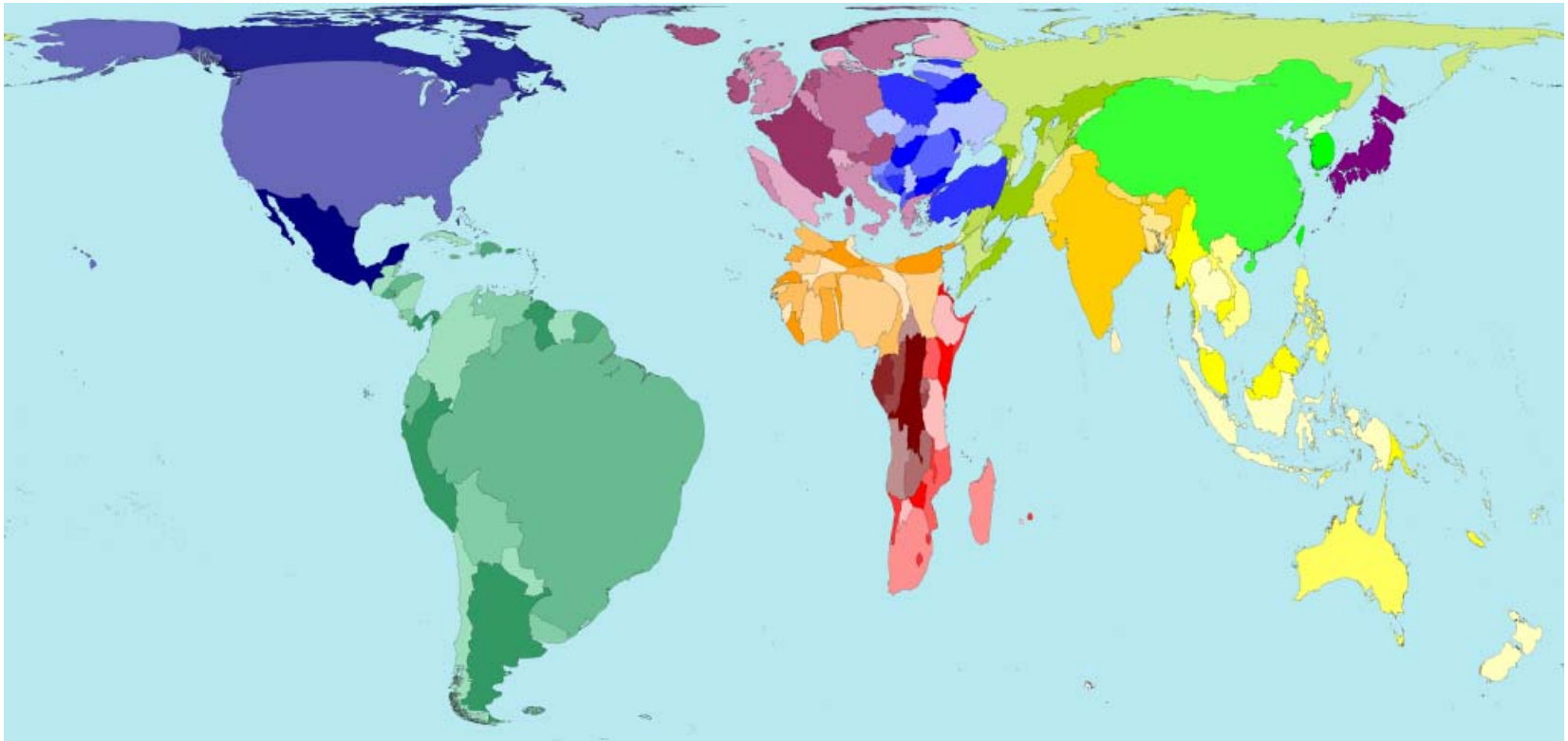
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Source: <http://www.worldmapper.org/>

# Biocapacity renewable bioproduction

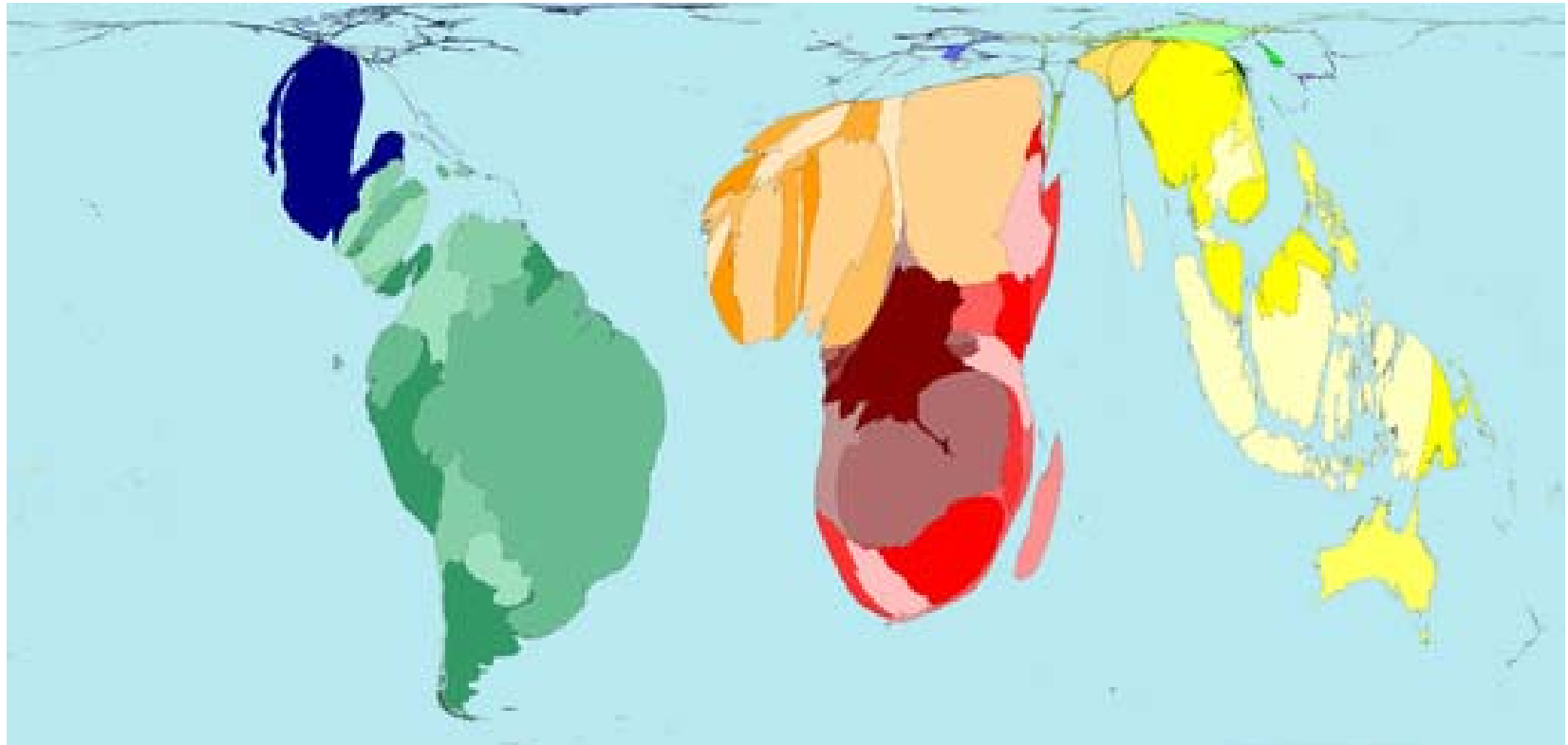
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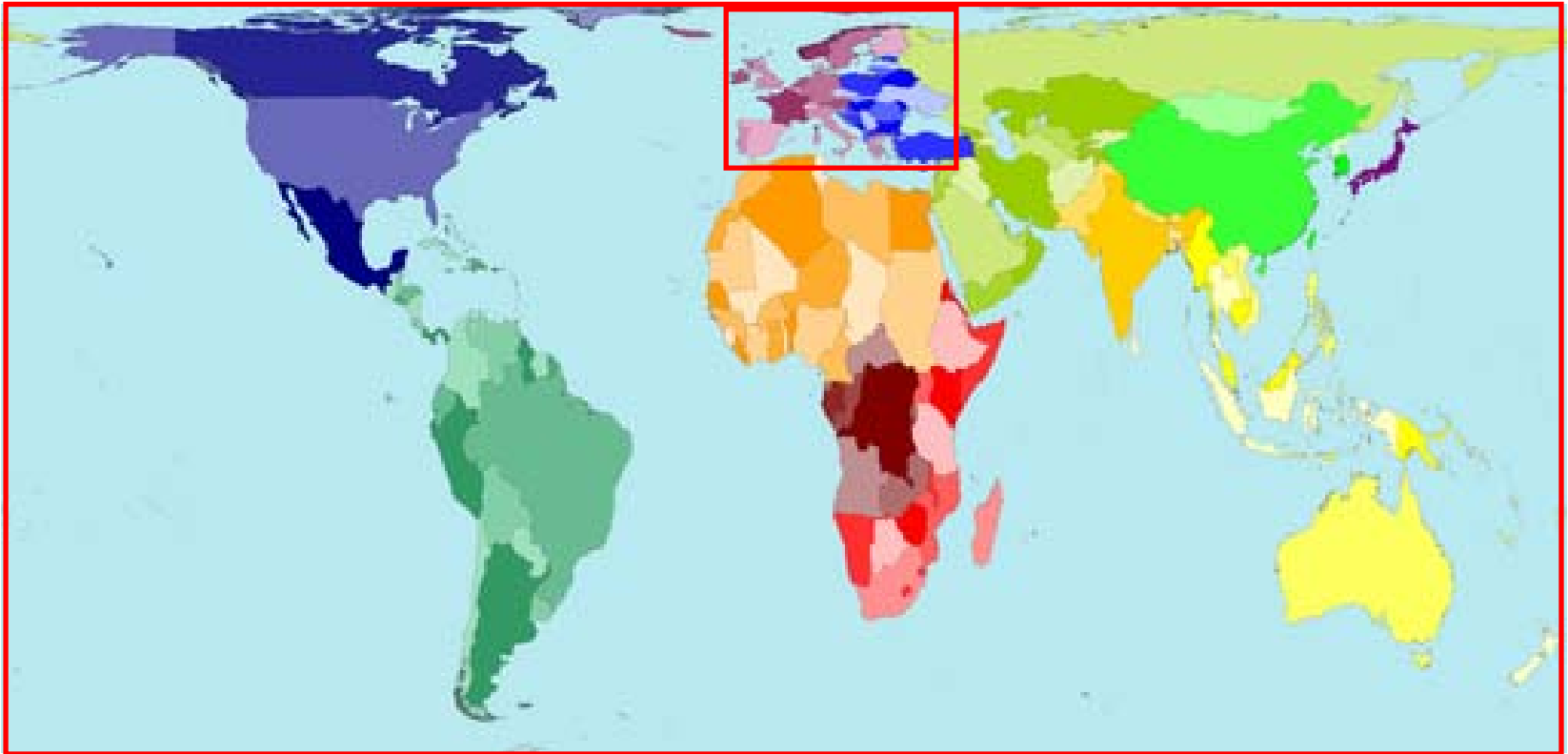
Source: <http://www.worldmapper.org/>

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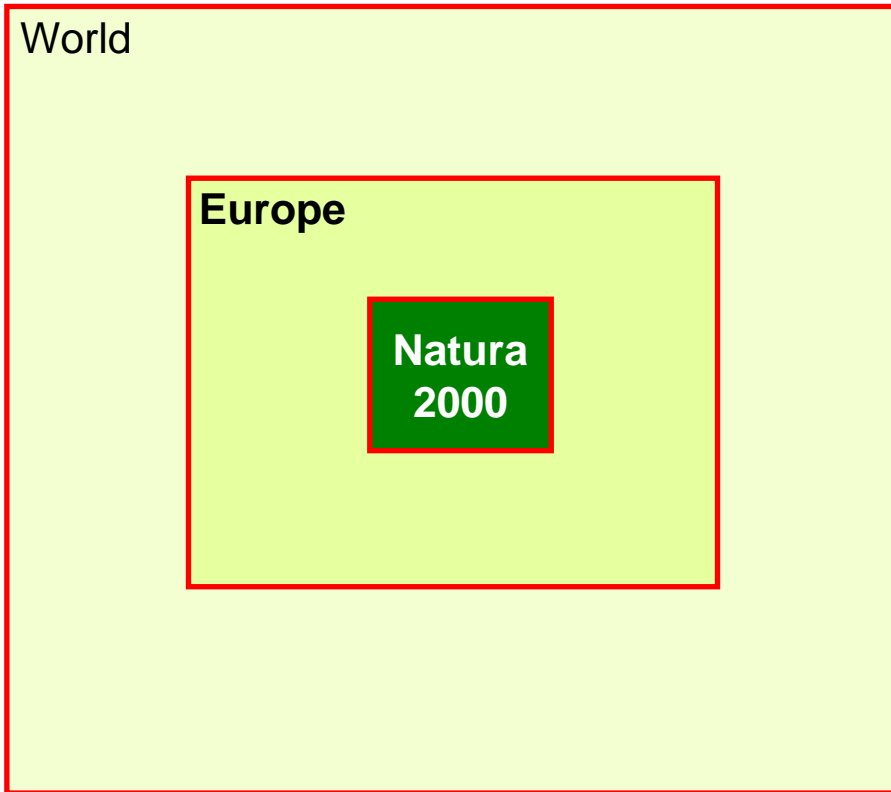
# Forest loss 1990-2000



Source: <http://www.worldmapper.org/>



Source: <http://www.worldmapper.org/>



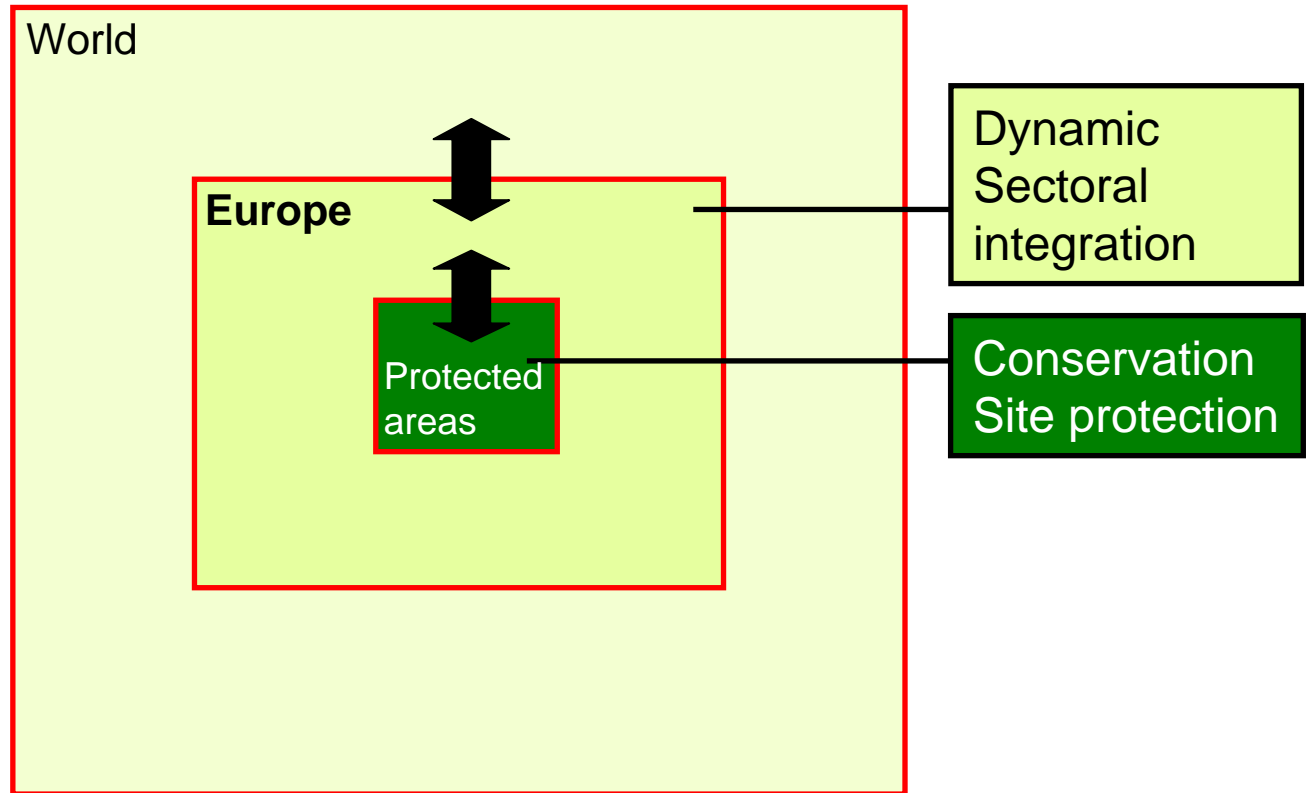
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**Target setting is crucial:**

**Spatial scale**

**Units of measurement**

**Timeframe**



# 6<sup>th</sup> Environment Action Programme

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- Period 2002-2012
- Four priority areas:
  - Climate change
  - Biodiversity
  - Natural resources and waste
  - Environment and health
- Biodiversity Action Plan



# Biodiversity action plan

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- Species and habitats protection (e.g. creating network of protected areas Nature2000)
- Sectoral integration (e.g. transport, energy, agriculture)
- Raising public awareness
  
- **Biodiversity Communication 2009:**
- Increased focus on interlinkages (climate change, resource use), ecosystem services and economic valuation and instruments (following TEEB)





- EU legislation on environment works when properly implemented
- Most success achieved for easily managed point sources of pollution
- Diffuse sources of pollution from economic sectors now the major challenge
- Land use, consumption and trade patterns most threaten environmental progress
- Our “footprint” from consumption and trade is more than double our biological capacity

# HNV farmland - project history

- **Joint Message - 2004**
  - Estimate of HNV farmland distribution
  - Analysis of policy targeting
- **Update of HNV farmland map - 2009**
  - on the basis of European datasets
  - enhanced by national datasets
  - regional workshops involving national experts
- **CAP expenditure analysis - 2010**
  - Update of policy targeting analysis
  - Analysis of biodiversity trends and farming systems
  - Regional cases studies
  - Policy recommendations



# What is HNV farmland?

## Some examples

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Mosaic of small-scale extensive farmland (pasture, meadows)



Grazed uplands and moors

Dehesa / montado mosaic of grazed woodland, arable

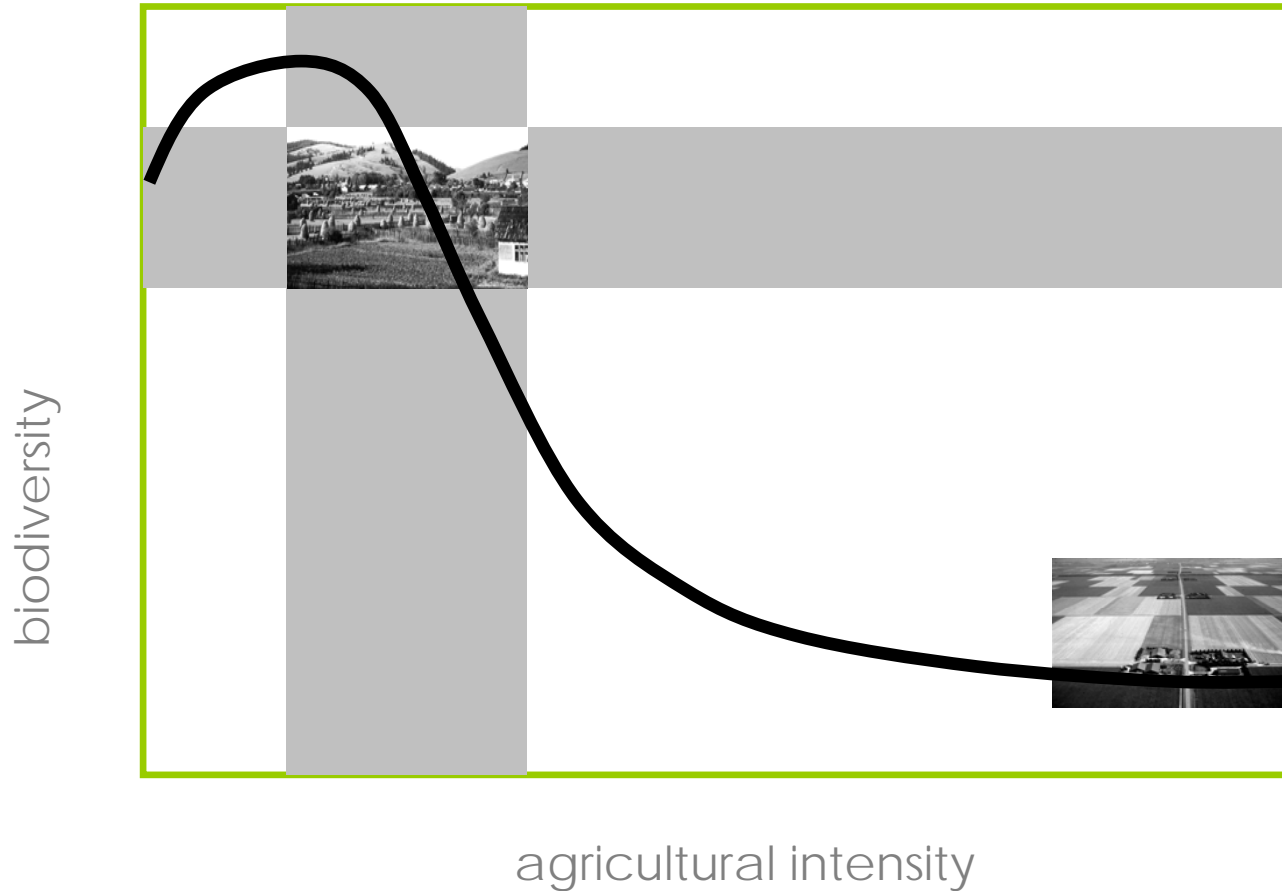


Steppic grasslands



# What is HNV farmland?

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# Why is HNV farmland important?

Policy background

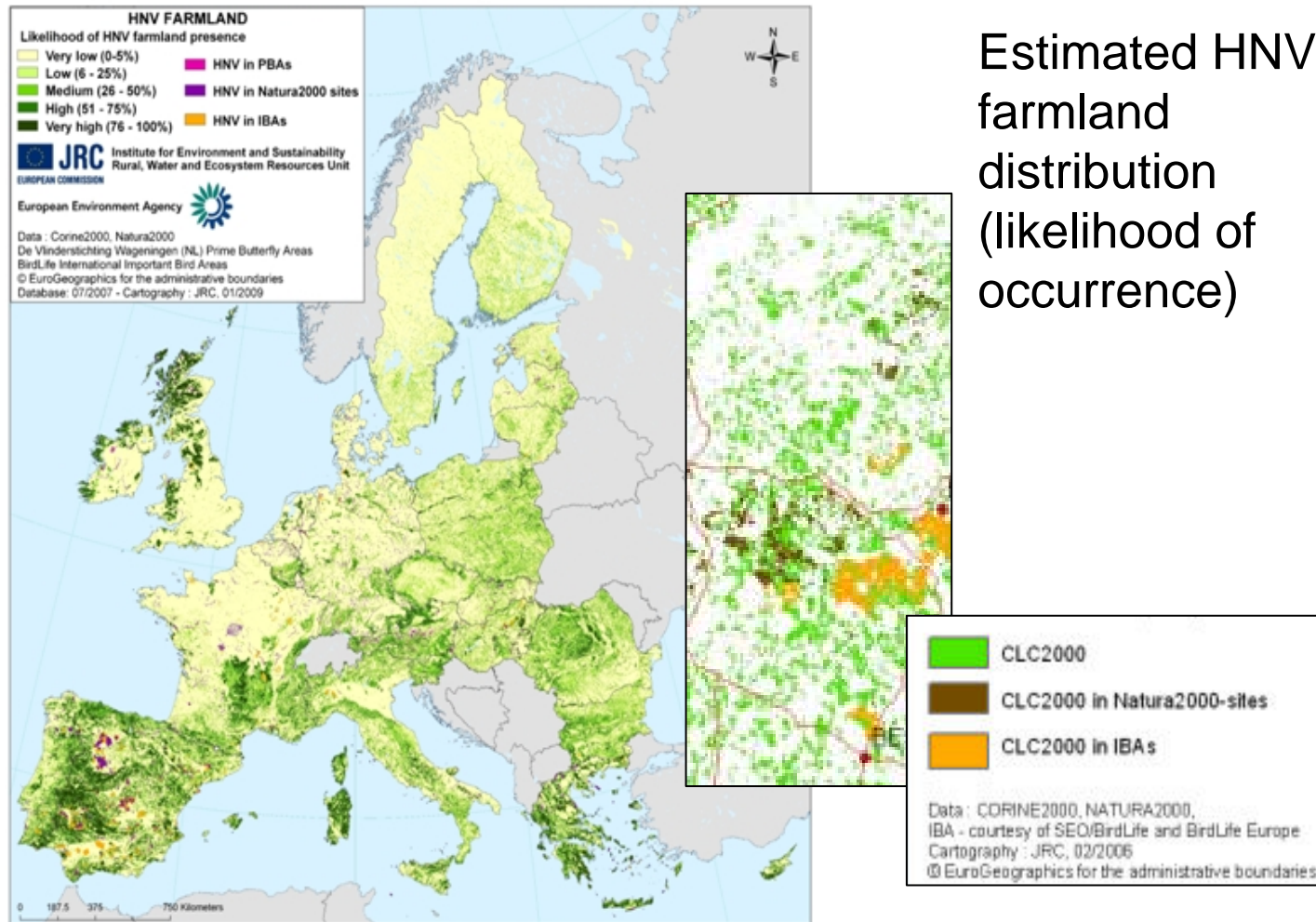
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Explicit targets:

- **EU 6th Environment Action Program**
  - Biodiversity decline to be halted by 2010
- **EU Regulation on Rural Development**
  - Support to ‘the conservation of high nature value farmed environments which are under threat’
- **Kyiv Declaration European Environment Ministers**
  - Identification of HNV areas by 2006
  - Biodiversity-sensitive management and subsidies by 2008



# Where does HNV farmland occur?



# What are the main trends?

- 5% - 10%
- 10% - 30%
- more than 30%

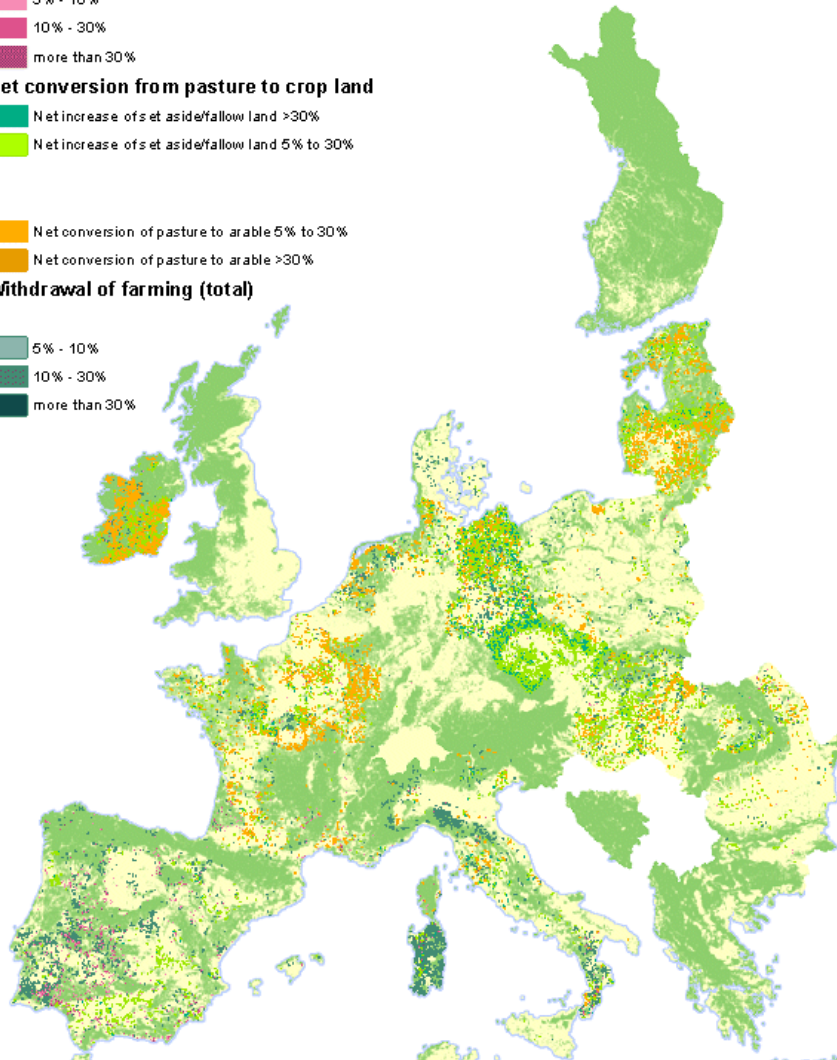
## Net conversion from pasture to crop land

- Net increase of set aside/fallow land >30%
- Net increase of set aside/fallow land 5% to 30%

- Net conversion of pasture to arable 5% to 30%
- Net conversion of pasture to arable >30%

## Withdrawal of farming (total)

- 5% - 10%
- 10% - 30%
- more than 30%

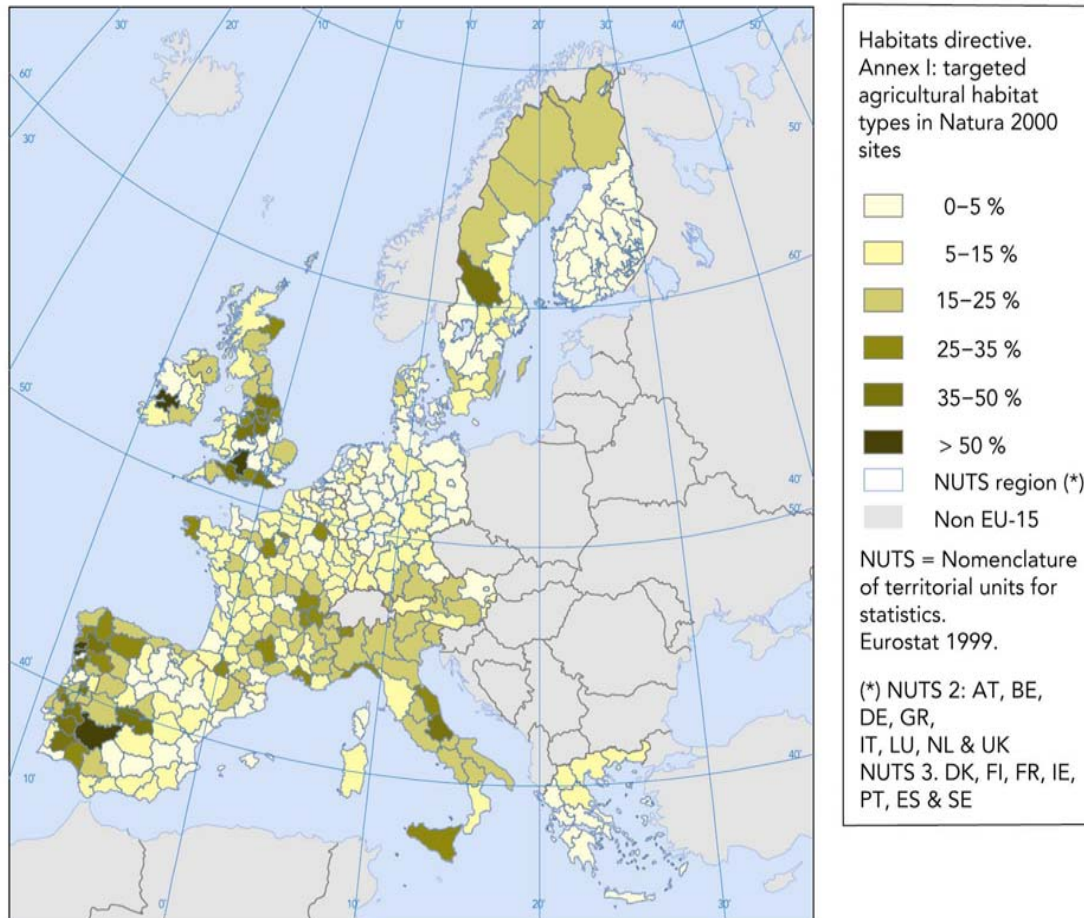


Changes in  
agriculture 1990-  
2000



# What are we doing about it?

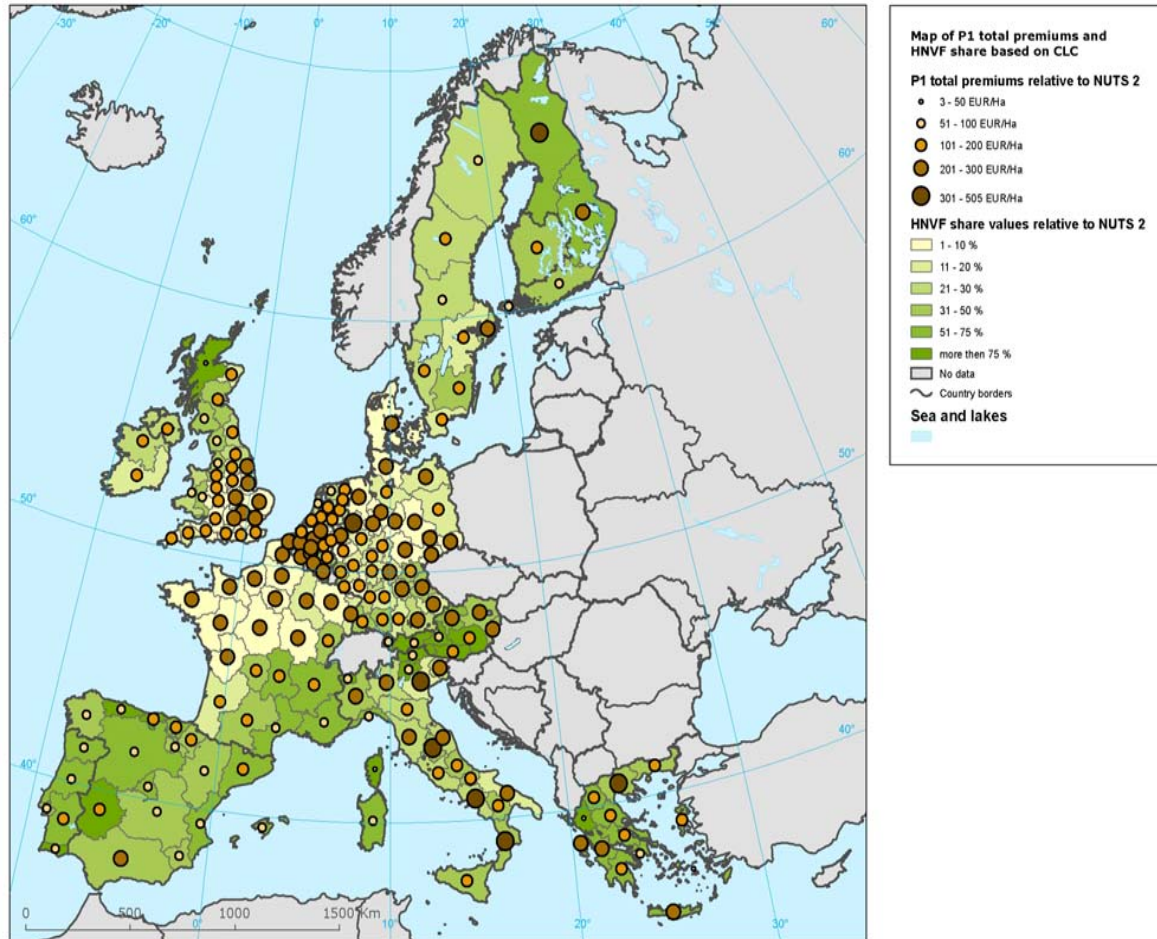
Site protection under habitats and birds directives



- **28** out of **198** habitat types require extensive agricultural management
- **20%** of HNV areas is covered by protected areas under Natura2000

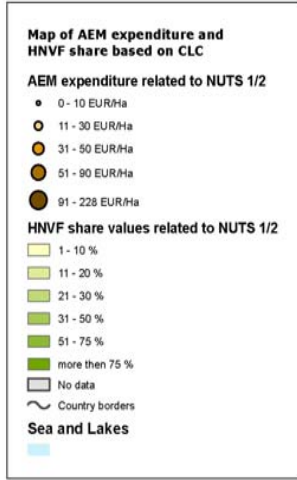


# What are we doing about it?



Total agricultural support Pillar 1 2005 data

# What are we doing about it?

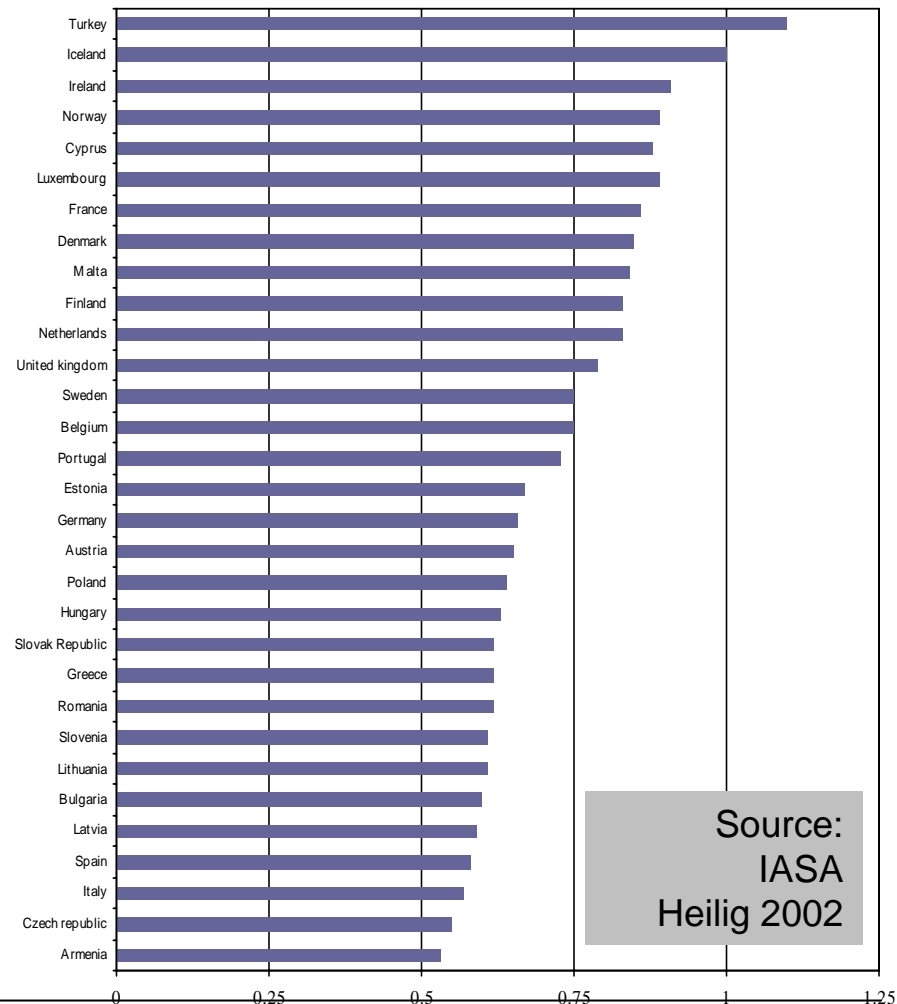
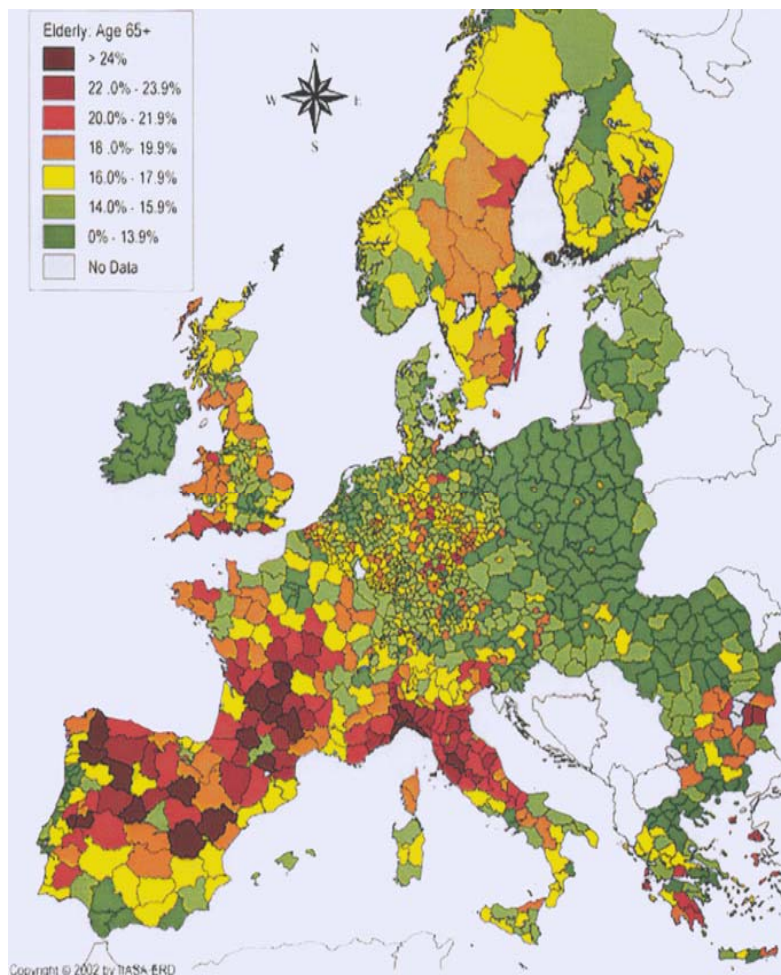


Agri-  
environment  
schemes

average  
expenditure  
2000-2006

# What is the future?

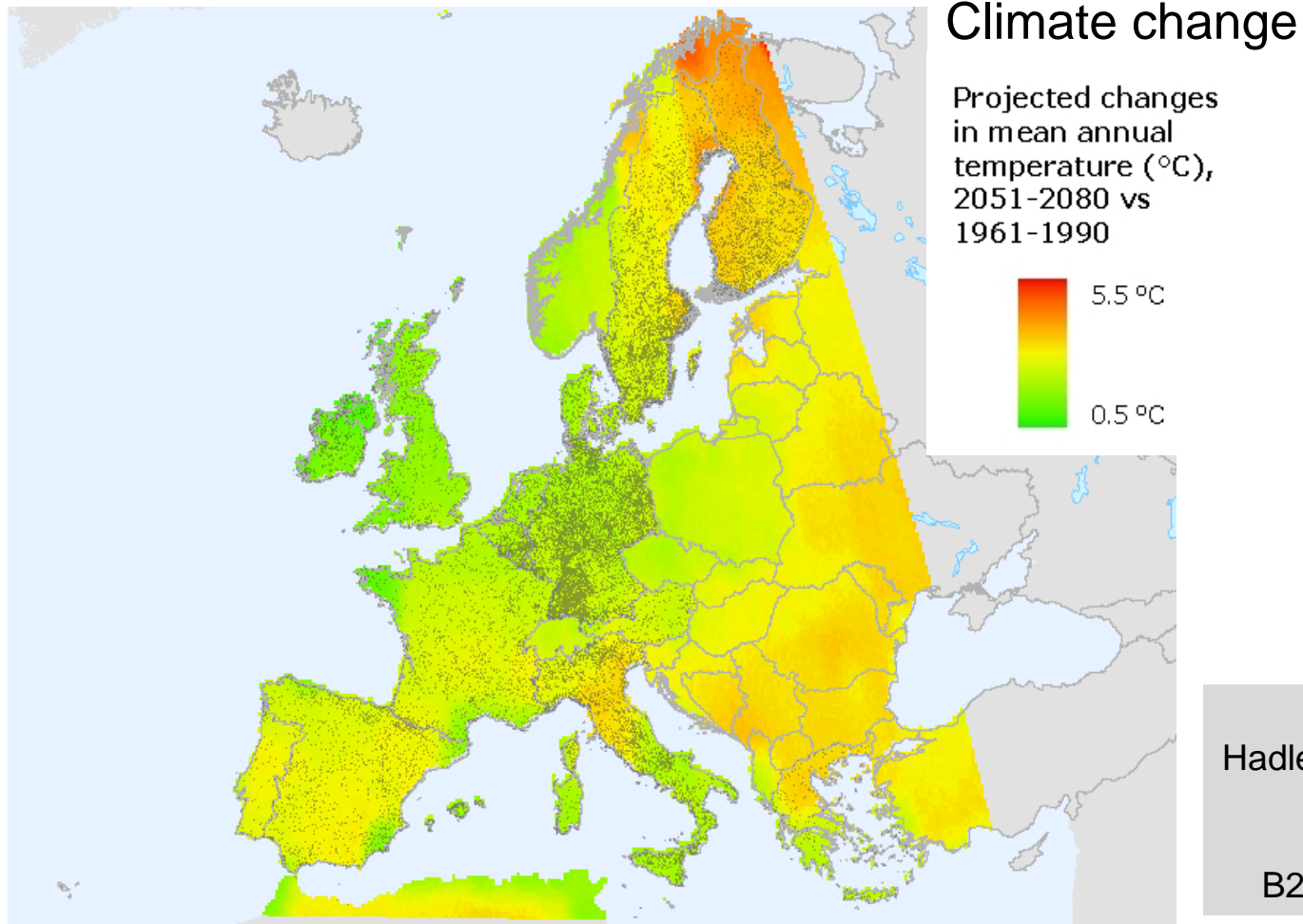
## demography



Net Reproduction Rate



# What is the future?



# Conclusions

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- HNV farmland makes up about **30%** of the utilised agricultural area in the EU-27
- The **conservation status is insufficiently known**, but case studies indicate **serious biodiversity decline**
- Site protection covers only **20%** of HNV farmland
- Targeting of HNV farmland areas by agricultural support appears **suboptimal**. The most productive farming systems and areas still benefit the most.
- The 2010 biodiversity target has **not** been reached.



# Reflections

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- The geographical targeting of CAP payments should be **reconsidered** in view of the changed rationale of the Common Agricultural Policy
- HNV farmland conservation should be tackled within a wider policy on **ecosystem services**.
- Socio-economic considerations should be taken into account - drivers of **long-term context change**
- Even with policy adjustments, a certain loss of HNV farmland is **unavoidable**.
- **Trade-offs**



# Indirect driver targets

(CBD draft strat plan)

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- Everyone is aware of the value of biodiversity and what steps they can take to protect it. **Biodiversity value is scale and stakeholder dependent.**
  - The values of biodiversity, ... are recognized and reflected by all countries in their ... policies and strategies... and by the private sector. **Biodiversity conservation is not one-directional. Many options with different trade-offs exist.**
  - Subsidies harmful to biodiversity are eliminated. **This requires an explicit and supported biodiversity target.**
  - Government and stakeholders at all levels ... implement sustainable plans to increase efficiency, reduce waste, and maintain the use of resources within ecological limits. **The latter requires accepted thresholds and a spatially explicit strategy.**
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