

# How can bilateral donors be “carbon smart” ?

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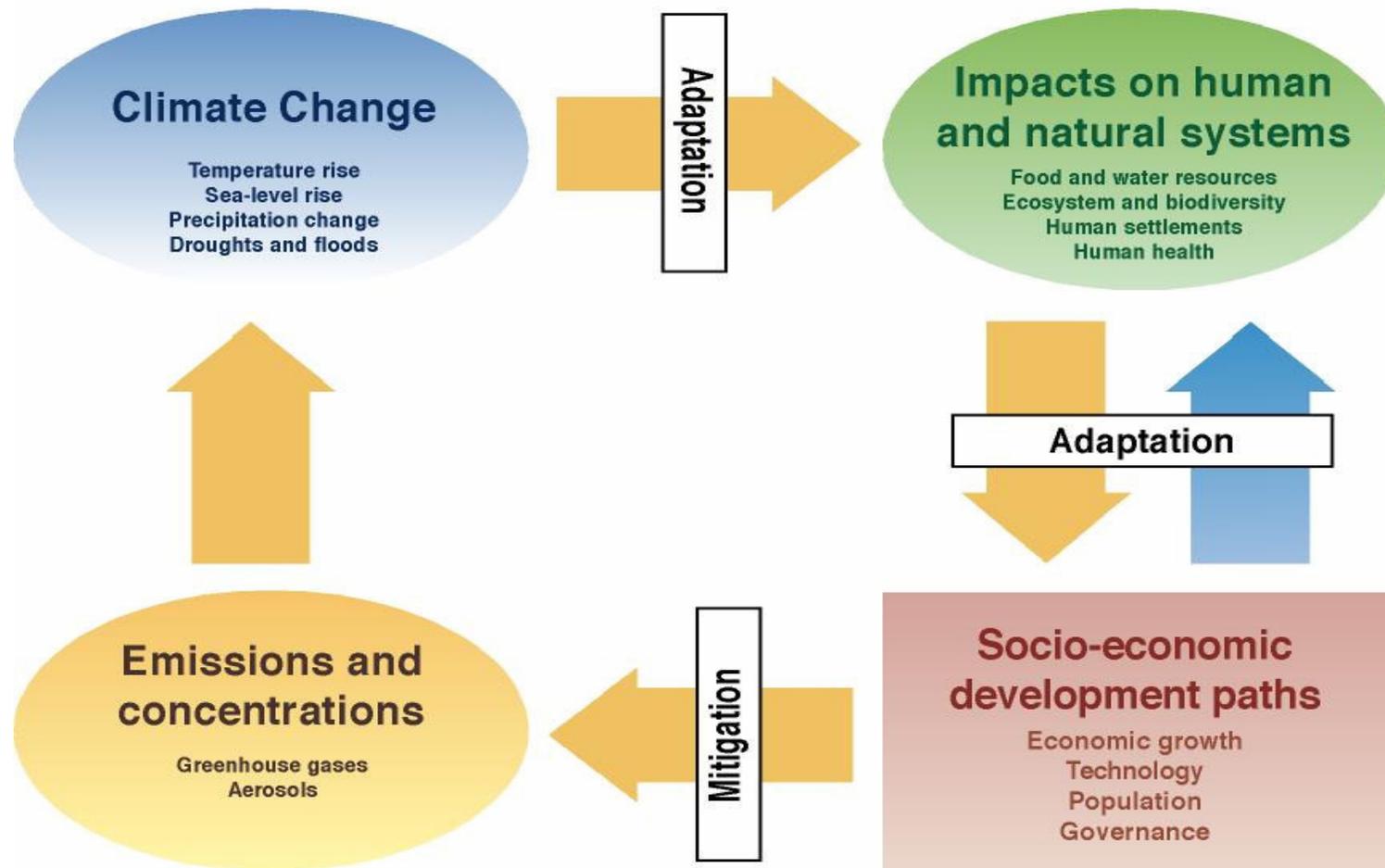
# Outline

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- The climate change – development nexus
- Measuring the carbon footprint as a way to mainstream climate change in donors' strategies
- Summary and questions
- Examples from the French Development Agency (AFD) portfolio

# Climate change and development are intrinsically linked

FIGURE 1.1  
SPM - 1



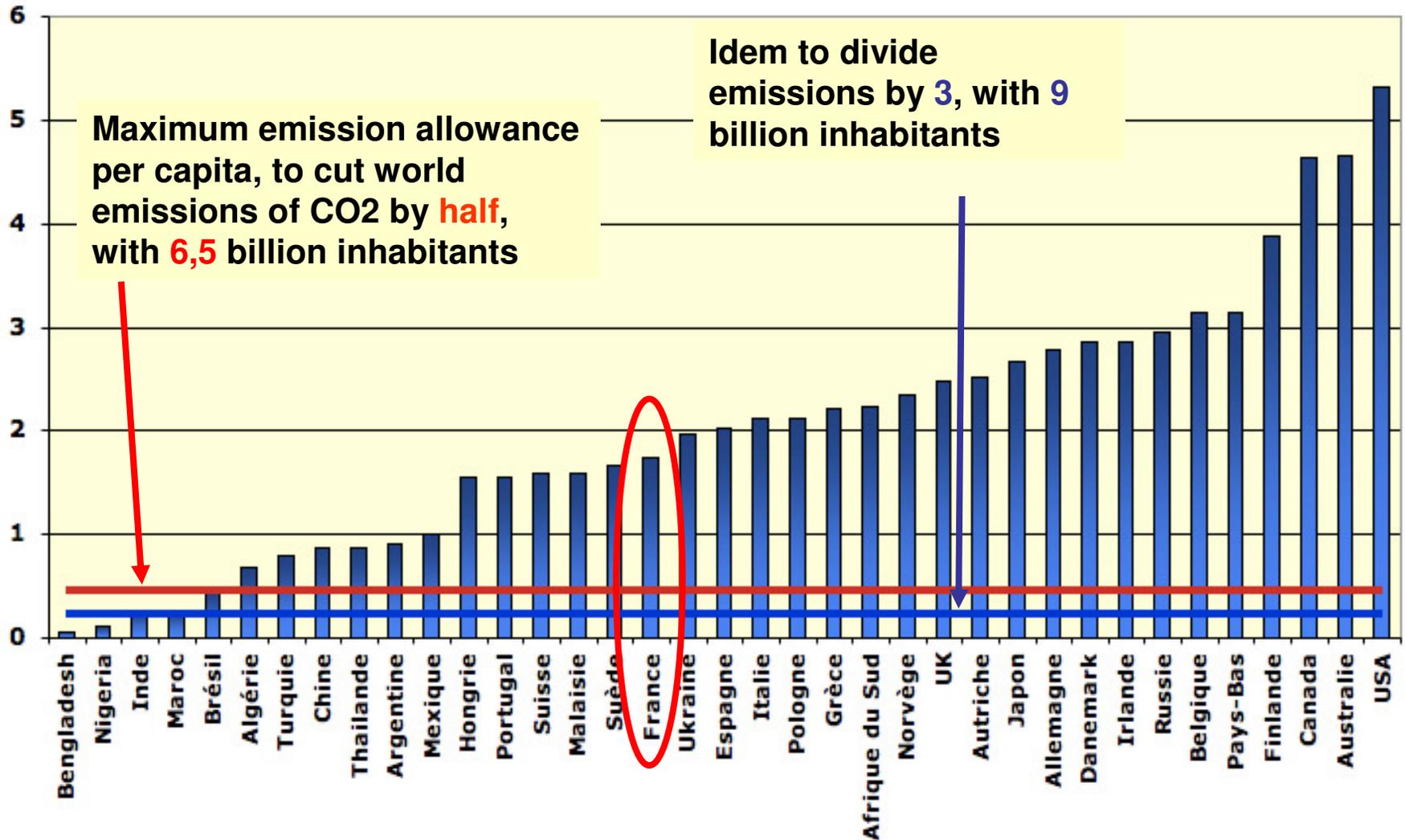
# Adaptation

- Do we need another « concept » such as adaptation?
  - « Sustainable development » requires adaptation: any development pattern that would ignore adaptation would not be sustainable in the face of climate change
  - Political economy argument: the « concept » of adaptation helps focus on a crucial issue. It may promote understanding and knowledge creation, stir innovation and help mobilize new funding
    - Concern about additionality
    - Concern about a partial approach to development issues: a new « fashion »?

# Mitigation and development

- An important issue, not only for emerging countries but also for the poorest countries
  - Costs savings (energy efficiency)
  - Savings on natural resources
  - Innovative processes
    - No-till agriculture
    - Biodiversity conservation (e.g. preservation of forests)
- Poor developing countries also have a role to play in the necessary global collective action

# Magnitude of the effort

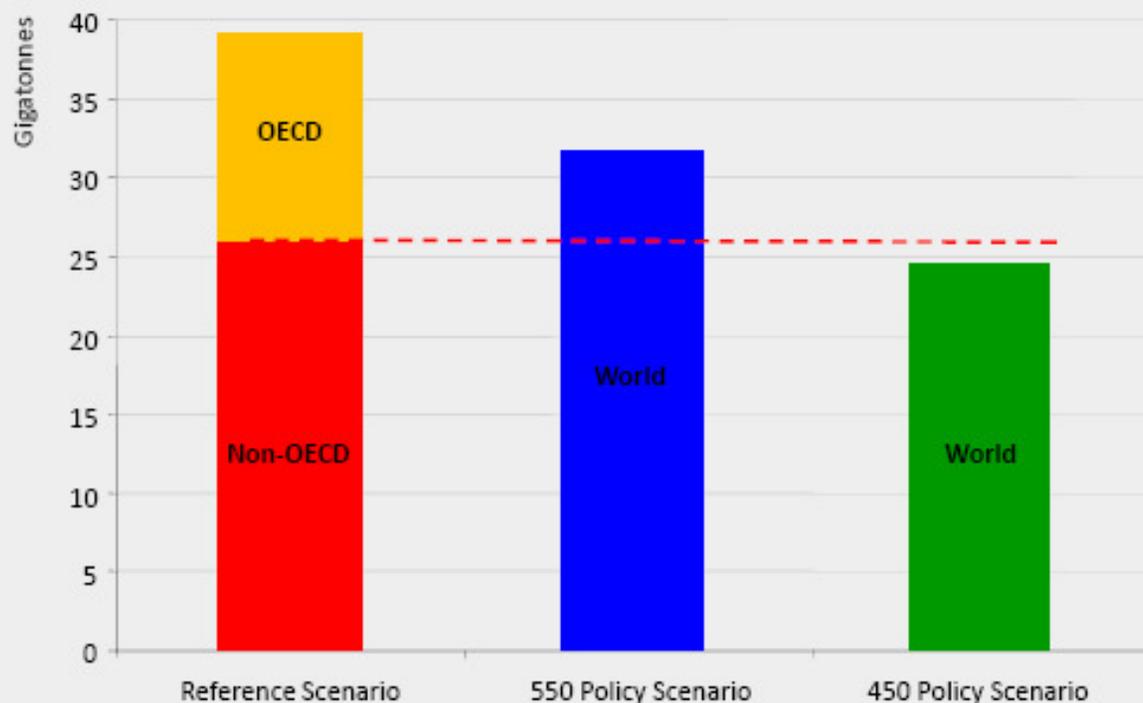


Carbon emissions per capita in 2003 and « maximal emission allowances without disrupting climate ». Source UNFCCC for per capita emissions.

# Change energy, not climate

## World energy-related CO<sub>2</sub> emissions in 2030 by scenario

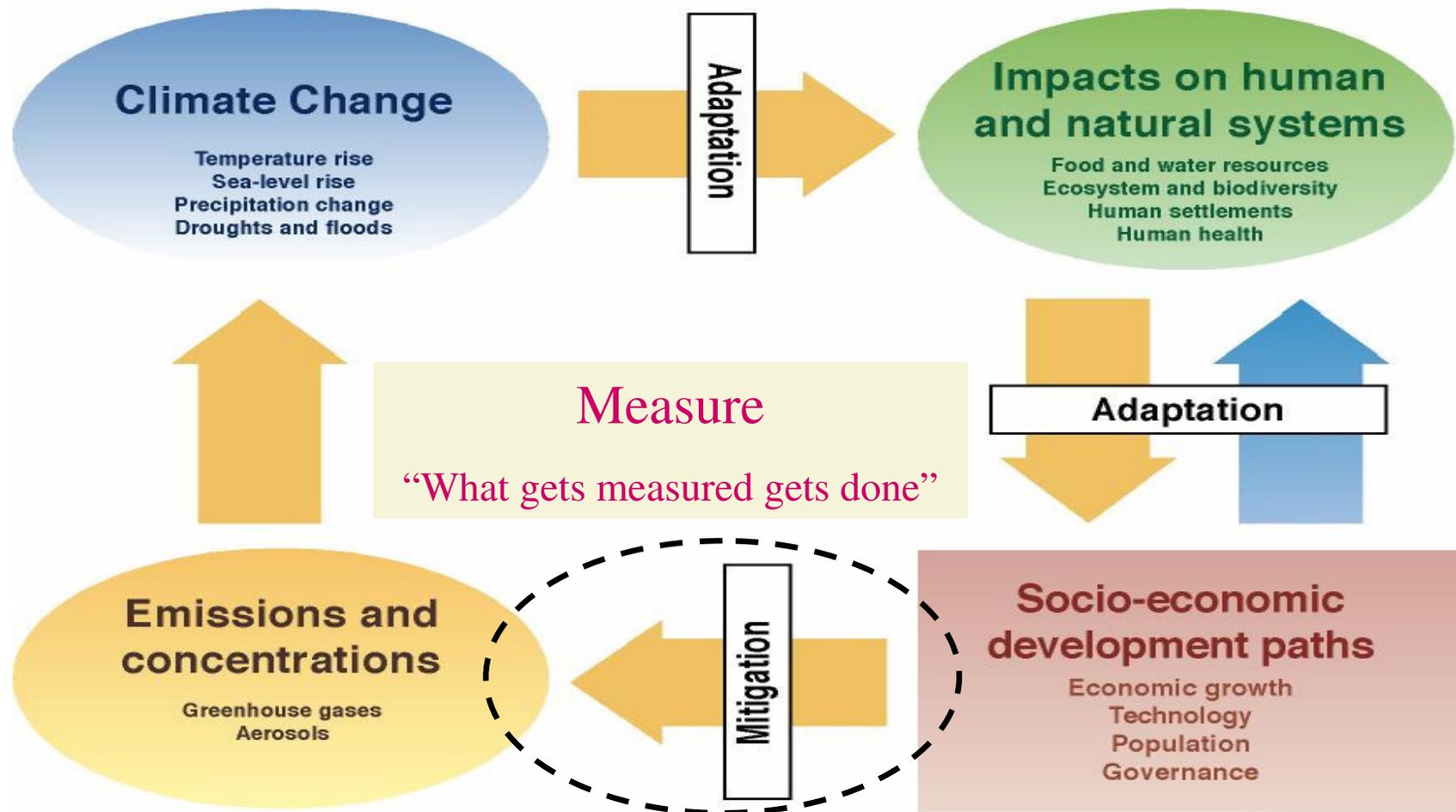
World  
Energy  
Outlook  
2008



*OECD countries alone cannot put the world onto a 450-ppm trajectory, even if they were to reduce their emissions to zero*

# Measurement as a potential disconnect

FIGURE 1.1  
SPM - 1



# Methodology

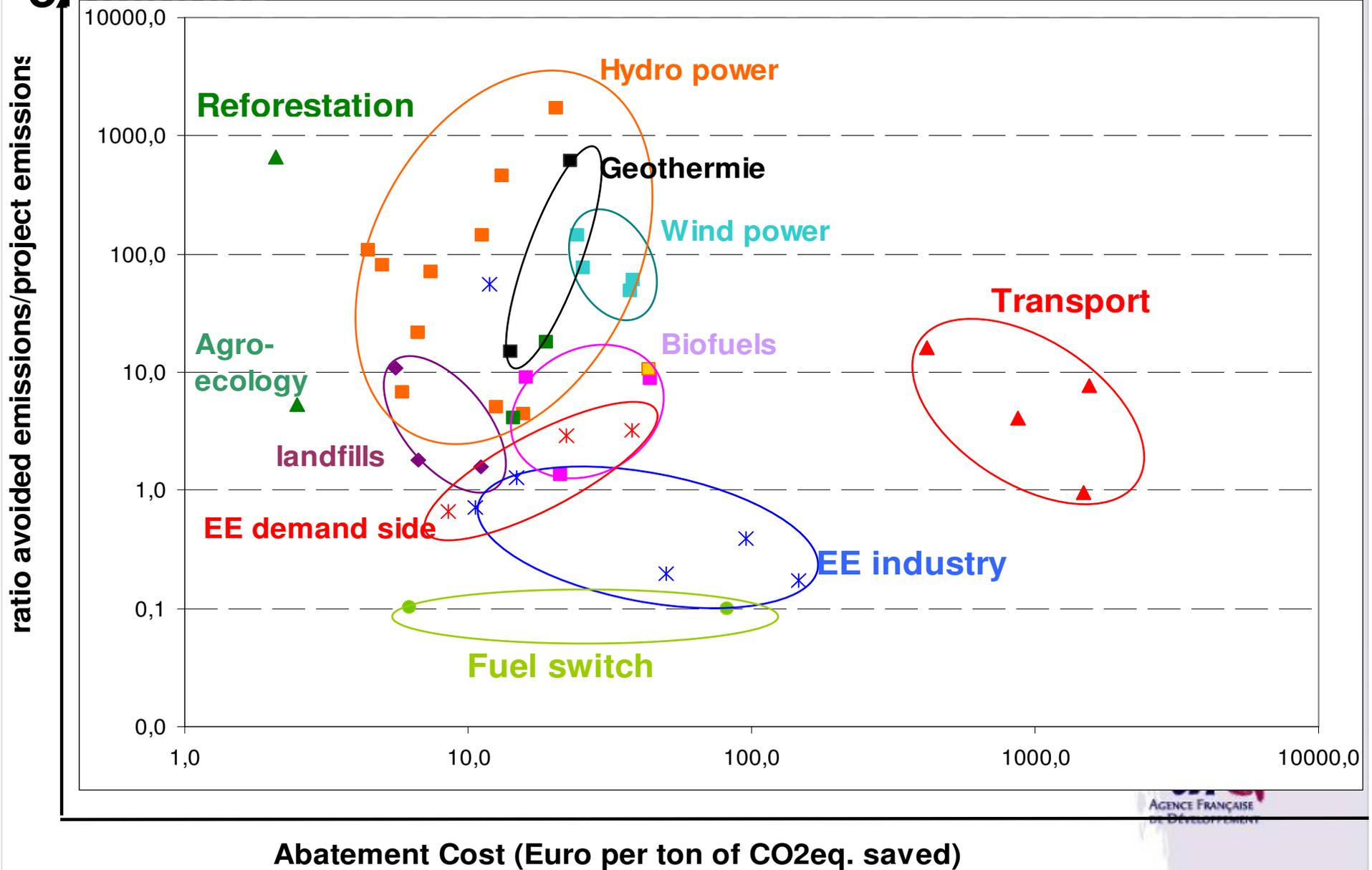
- Project per project basis, focus on projects which emit GHG (criteria above 100 kilotons of CO<sub>2</sub>)
- Only emissions induced by the project are considered
  - 4 project categories : negligible, lump-sum, proportional and specific (case by case) impacts.
- Emissions are not weighted by AFD proportional participation in financing (all emissions are counted)
- Emissions of the construction phase (including those of the main inputs: cement, steel...); of maintenance and of the operating phase, e.g. traffic.
- Emissions considered over the project lifetime (standardized), presented as yearly averages
- Only projects are concerned at this stage. A next step is to include intermediated finance and budget support in the carbon footprint measurement exercise.

# Carbon savings and development finance

- For a development agency interested in promoting growth and in contributing to the fight against climate change (global public good mandate), it is useful to distinguish between:
  - Emission reductions, when carbon emissions after the implementation of a project are lower than actual emissions before implementation (gains in energy efficiency, re-forestation...)
  - Avoided emissions when project implementation leads to lesser carbon emissions than the most likely alternative (renewable energies, avoided de-forestation)
- Now, the dilemma is the following:
  - GIEC prescription of halving emissions by 2050 points toward emission reductions. Avoided emissions simply bend the relationship between growth and CO<sub>2</sub> emissions
  - Sustainable development finance requires focusing on avoided emissions
- The solution to the dilemma supposes that growth in CO<sub>2</sub> emissions in developing countries be more than

# Practical results

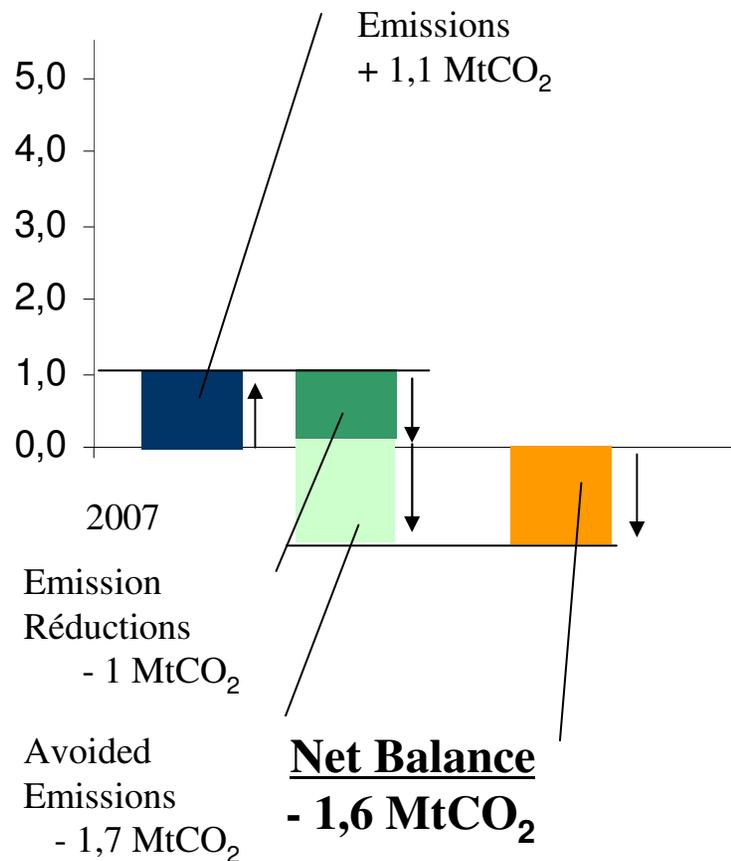
## Mitigation: tool for decision making, e.g. project efficiency



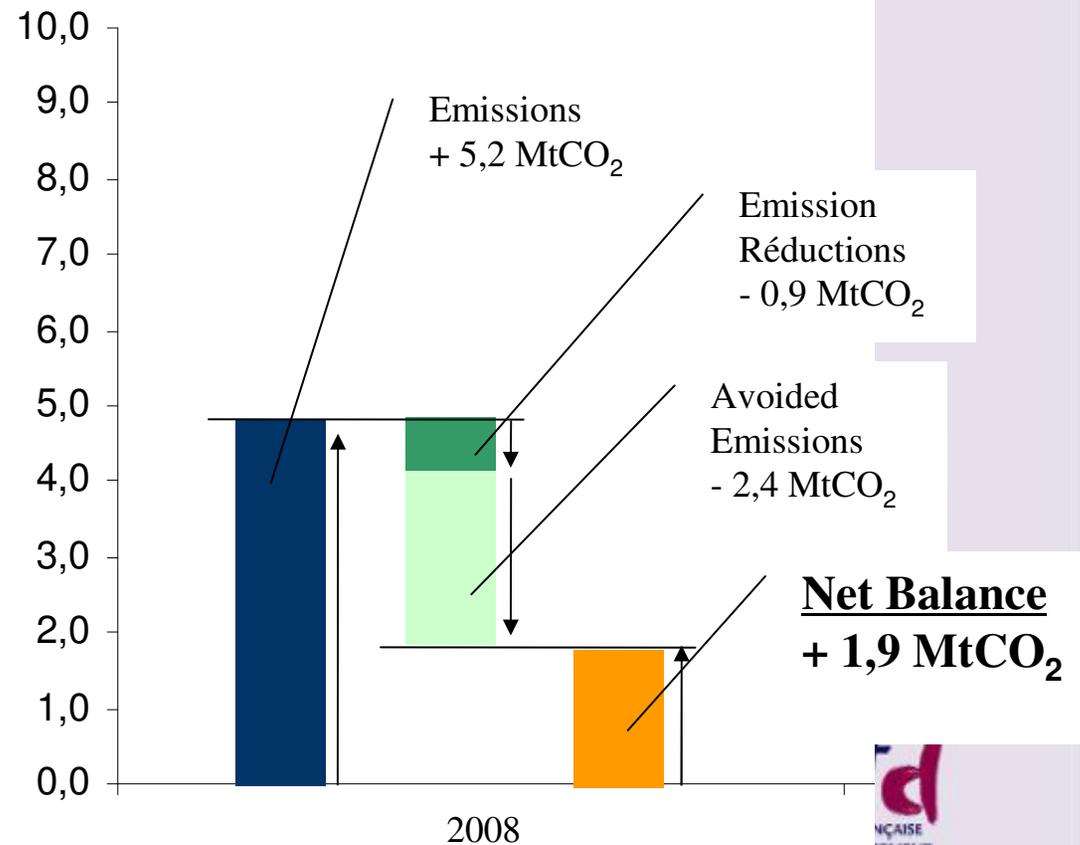
# Practical results

## Global carbon footprint : tool for decision making

- 2007 net CO<sub>2</sub> balance

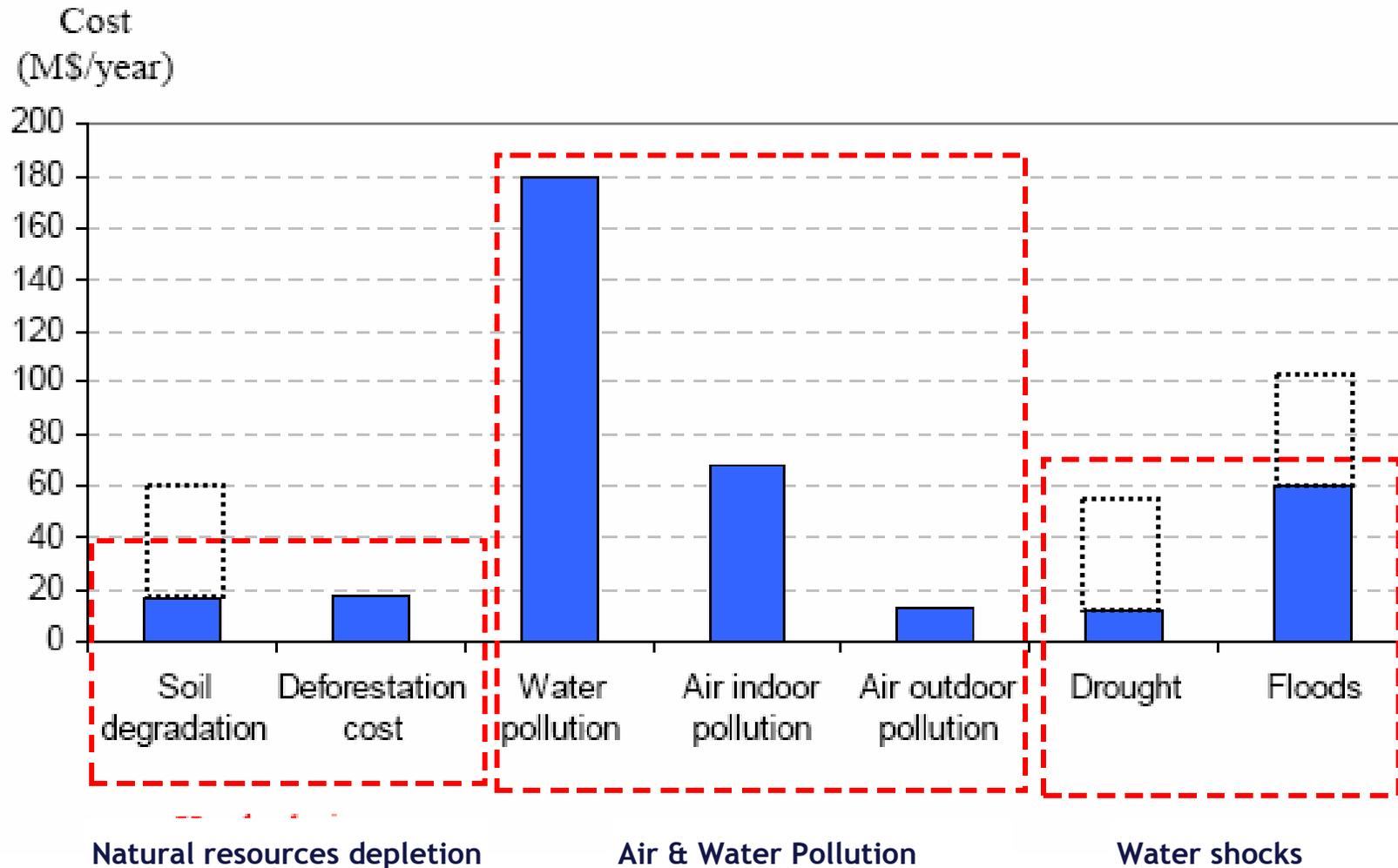


- 2008 net CO<sub>2</sub> balance



## MOZAMBIQUE

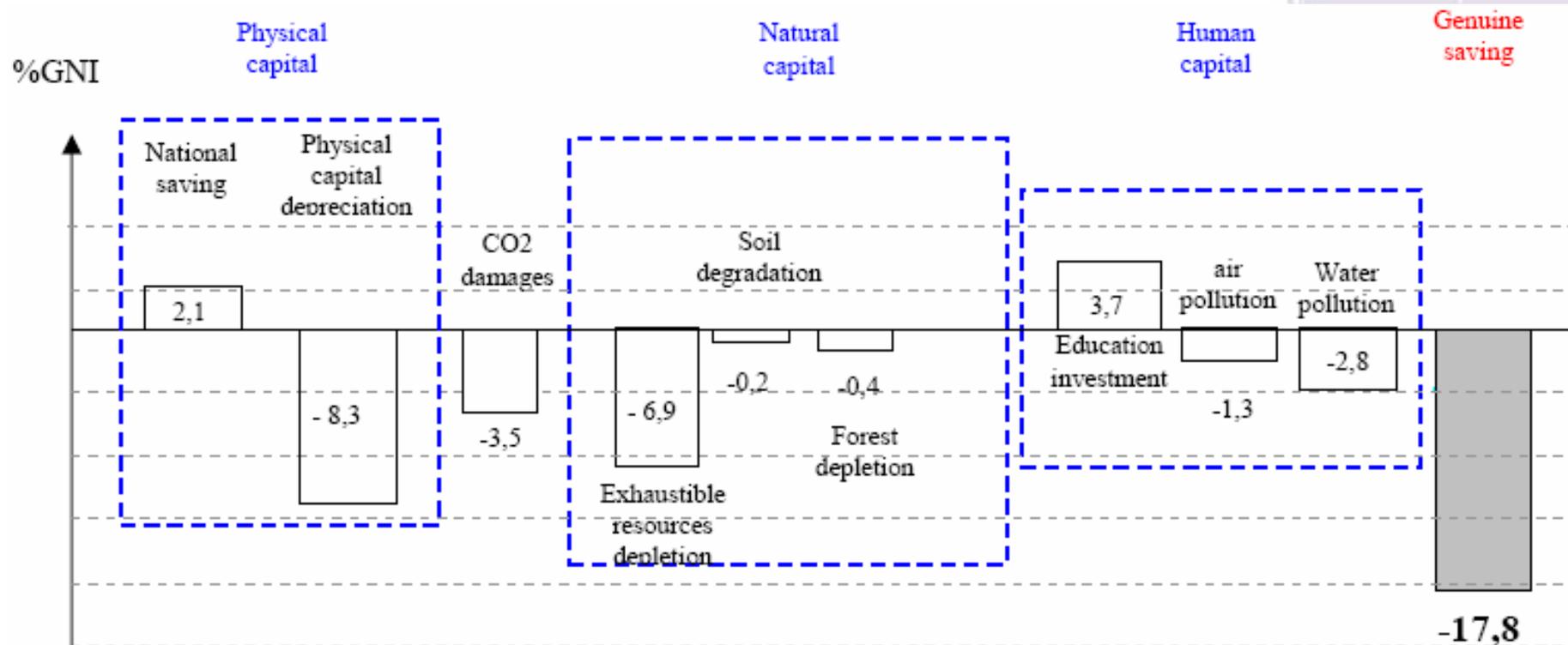
### PRELIMINARY RESULTS: COST OF ENVIRONMENTAL DEGRADATION



 Cost of adaptation to climate change (will be provided by another study)

# MOZAMBIQUE

## PRELIMINARY RESULTS: ADJUSTED NET SAVINGS



**Mozambique GNI growth in 2007: 7.3 %**

# Summary and questions

- **Using the carbon footprint tool is a powerful way to mainstream climate change into a donor agency operational strategies**
- **AFD impact on mitigation is shown to be significant (offset 1 million new cars emissions)**
- **Calculating emissions, emission reductions and avoided emissions provides feedback and leads to difficult questions**
  - **Should AFD and donor agencies be “carbon neutral”? If not, should they target a given volume of emissions?**
  - **How can their strategies be made compatible with IPCC findings and recommendations?**
  - **How to communicate externally on their carbon footprint?**
  - **What carbon strategy for donors to allow them to effectively and efficiently channel part of the financial resources mobilized for adaptation and mitigation toward sustainable development finance ?**

# Example from AFD's portfolio

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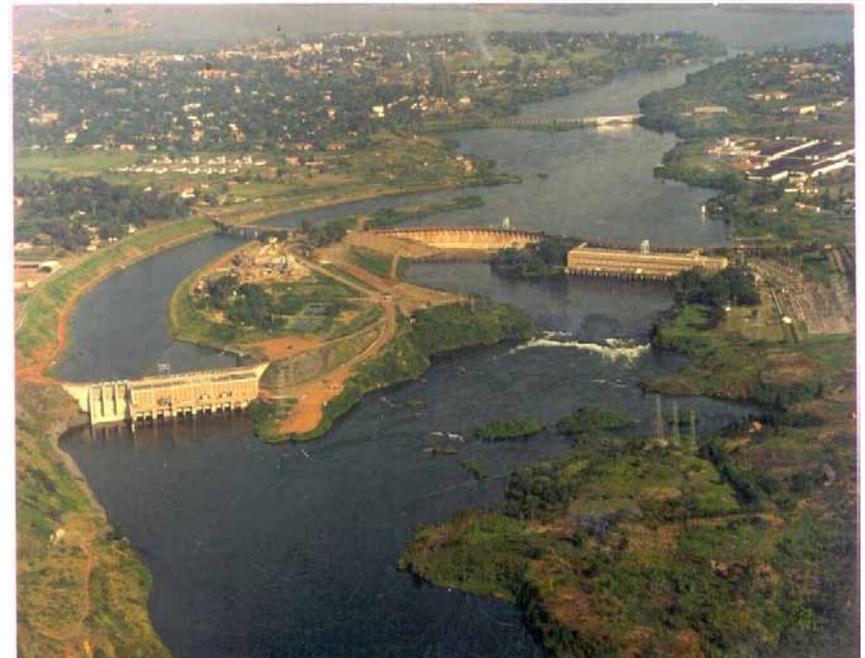
- Convergence between development and emissions limitation
- Cf: set up a low carbon economy
- Example of a cement factory in Turkey: use of dried sewage mud from neighboring municipality as fuel.
- Reduction of coal consumption
  - Solving the problem of sewage mud treatment
  - 46 000 tCO<sub>2</sub> avoided a year



# Example from AFD's portfolio

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- Financing the fight against climate change at market conditions, through the private sector
- Cf: US\$ 300bn of financing needed in 2030, 80% from private sector
- Example of a dam in Uganda
  - Private partner
  - Development of renewable energy in Africa
  - Clean and sustainable energy
  - 1MtCO<sub>2</sub> avoided a year



# Example from AFD's portfolio

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- Financing the fight against climate change through the public sector
- Cf: leverage effect when influencing local or national public policies
- Example of a project to expand public transport facilities (Rapid bus transit system) in Curitiba, Brazil
  - Loan to the municipality
  - Reinforcement of municipal policy to control emissions
  - 40 000 tCO<sub>2</sub> avoided a year



# Example from AFD's portfolio

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- Supporting innovative national policies in line with the « Bali Roadmap »
- Example of a US\$ 200M loan to the Indonesian government to support their national climate plan (avoided deforestation, reforestation, energy efficiency, renewable energy sources)
  - Important leverage effect
  - Implementing concrete actions
  - Later loans conditioned on a performance matrix with indicators of results
  - No global carbon footprint available yet for such programs



# Example from AFD's portfolio

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- Financing mitigation *and* adaptation
- No-till farming systems:
  - Limitation of soil use as well as inputs (fertilizers)
  - Carbon storage into the ground
  - Soil resilience improvement (erosion, etc)
- Example of agro-ecology projects in Madagascar, 30 000 tCO<sub>2</sub> avoided every year



No tillage

Tillage

## Example from AFD's portfolio

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- Use of concessional lending to the private sector in exchange for sustainable forest exploitation
- Cf: deforestation and forest degradation responsible for 20% of GHG global emissions
- Carbon capture in forests
- Projects to support sustainable forest management in Congo basin
- 60% of forest concessions are now exploited according to a sustainable management plan
- (In Gabon), extension of the project toward smaller companies using concessional credit lines through local banks.

## A particular carbon footprint



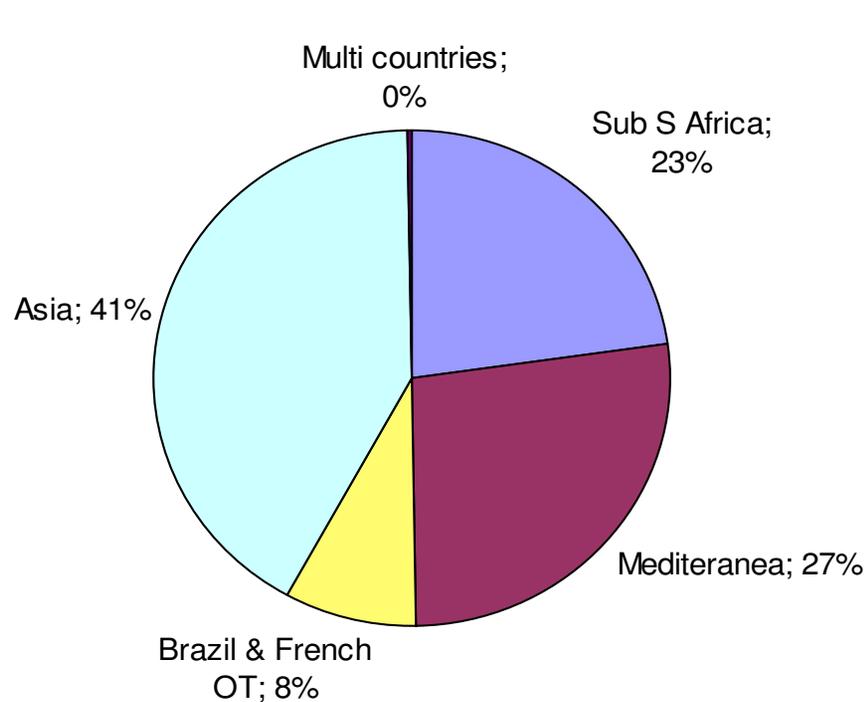
Thank you

# Practical results

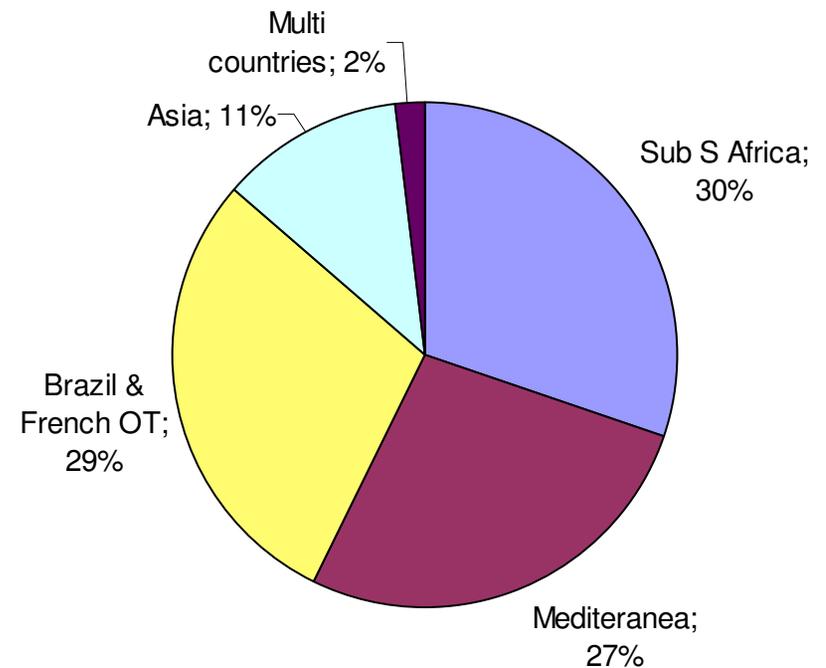
## Mitigation: Climate portfolio analysis 2005-08

Commitments (M€)

- A significant potential in Africa



Commitments in €

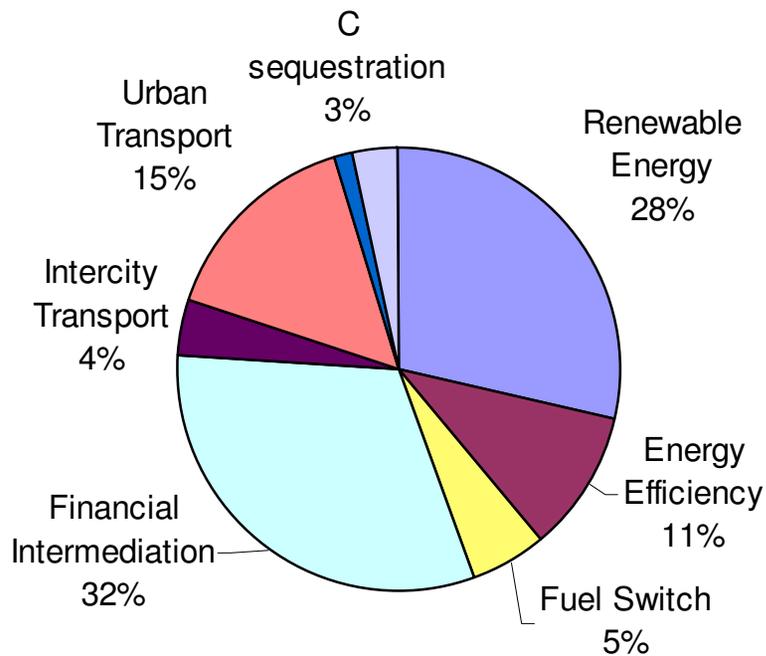


Commitments in nb of projects

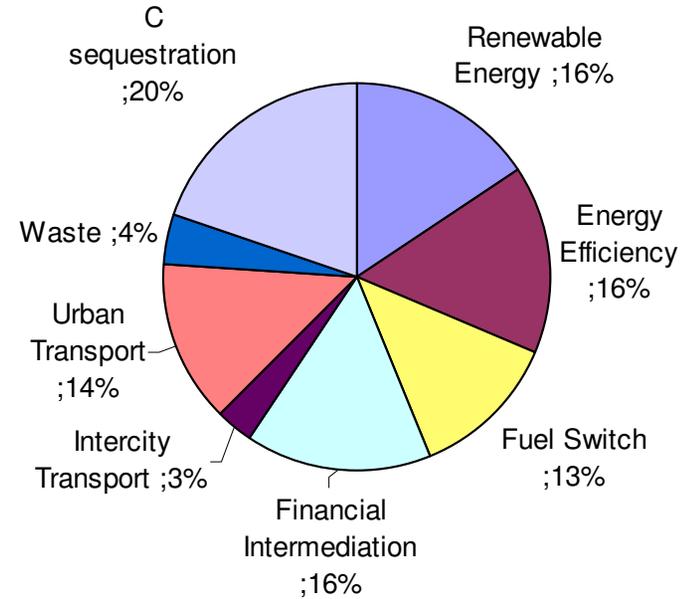
# Practical results

## Mitigation: climate portfolio analysis 2005-08

- Sectoral distribution highly concentrated on energy sector



Commitments in €



Commitments in nb of projects