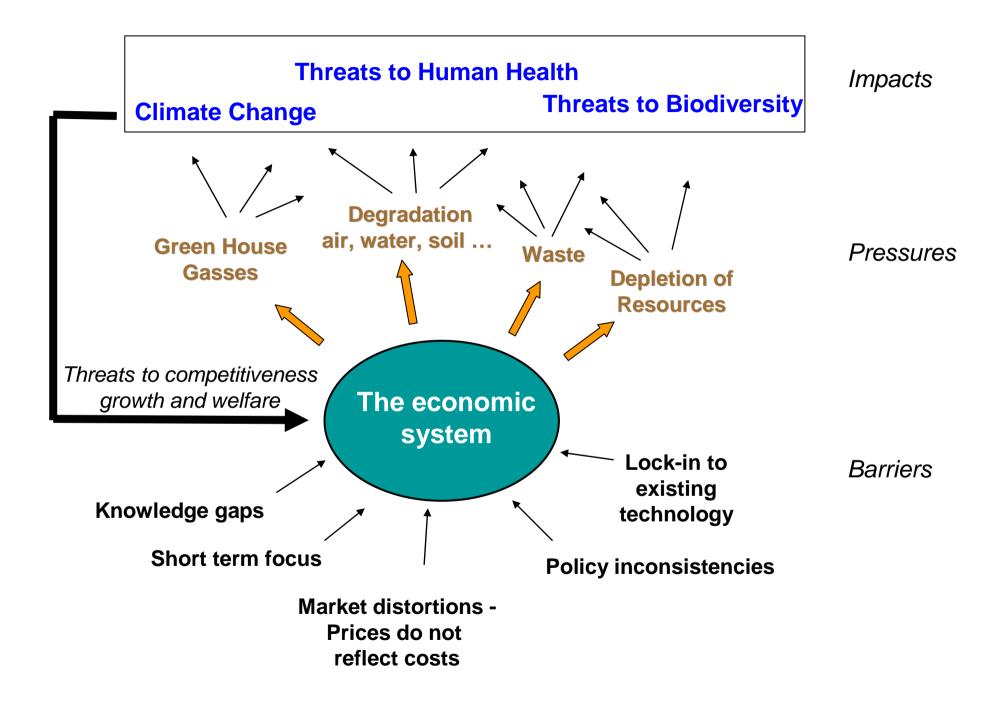
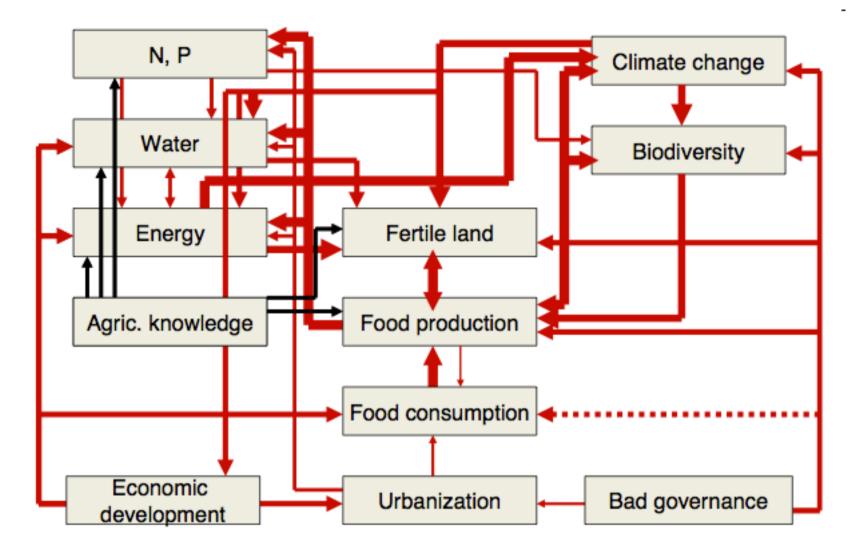


Climate Change and Natural Resource Management: Land-Use, Forestry and Water

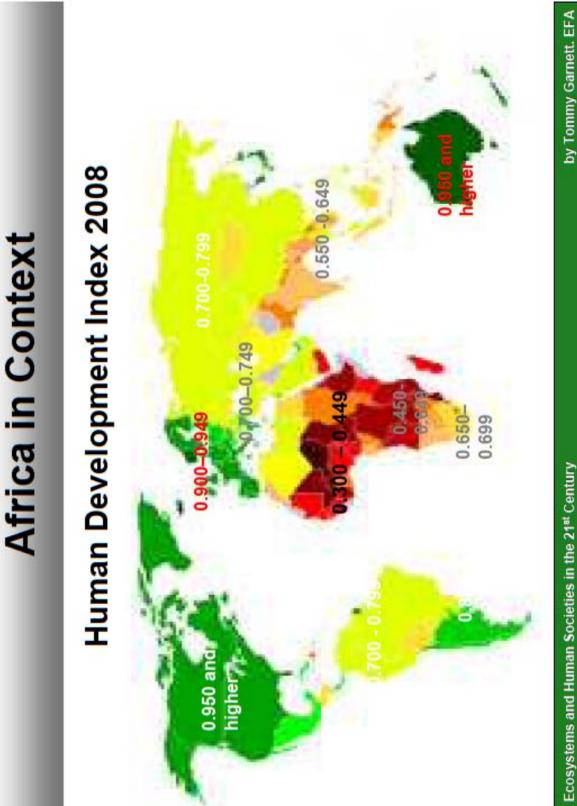
Laurence Tubiana Engaging with Africa on Climate Change *European Climate Diplomacy* Brussels, 14 Octobre 2011





The size of the arrows indicates the intensity of interactions. Arrows in both directions indicate complex, nonlinear feedbacks

Source: European Commission – Standing Committee on Agricultural Research (SCAR)



Main challenges

- Demography : 2 billions people in 2050? X 10 in a century. Africa back at it's level of XIV century.
- Urbanization,
- poverty

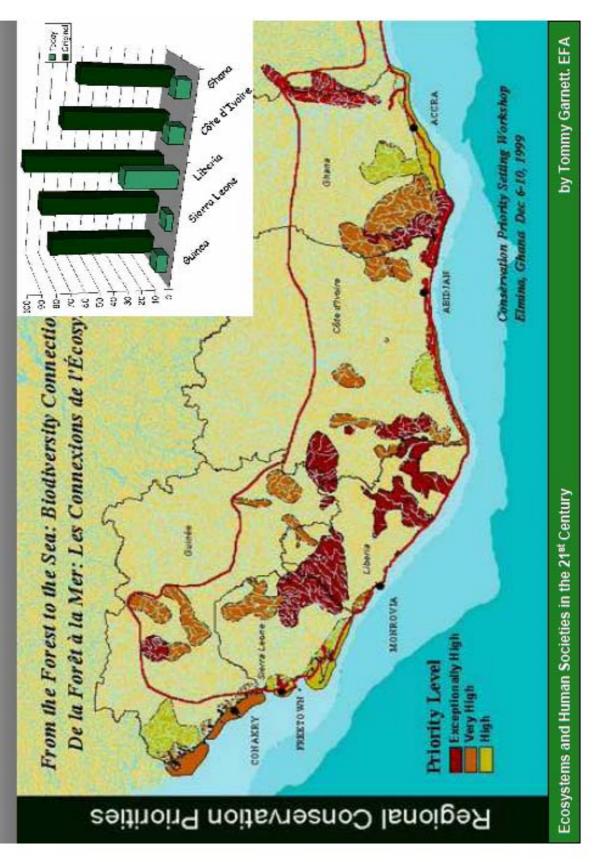
In a very difficult context :

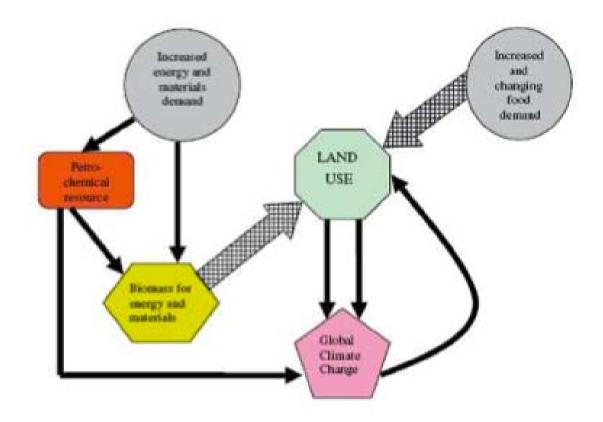
- Climate change : migrations, extreme events, floods, water and food : green revolution in India happened in a very different climate!
- Obstacles to migrations :
- Race to natural resources : arable land , minerals forests, energy
- a negative context for ODA

Opportunities

- Agriculture and food production : Africa feeding the world?
- Biodiversity and forests: paying for ecosystems services
- Economic development : investments in development infrastructure



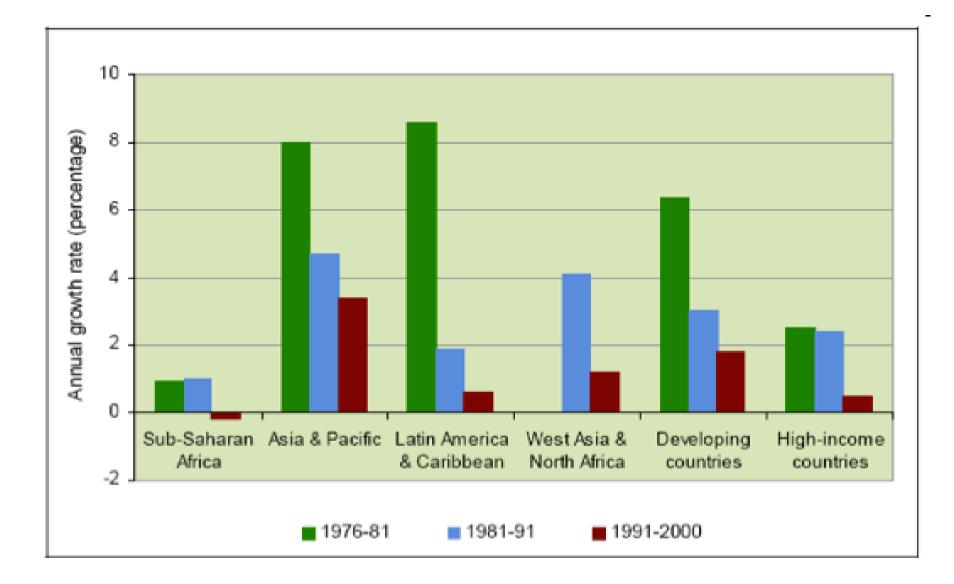




-

The new competition for land use: interactions and feedbacks

Source: Harvey and Pilgrim (2011)



Annual growth rates in agricultural R&D by geographic area

(Source: Beintema and Elliott, 2009)

conclusion

- cooperation on structural factors : role of infrastructure
- Policy dialogue on development but how much climate driven?
- Aligning climate objectives with food security, inclusive urban development, access to energy
- But above all, make together the case for a green economy.