MORE CLIMATE CHANGE – LESS BIODIVERSITY

LESS BIODIVERSITY MORE CLIMATE CHANGE
Risk of abrupt changes in our future

**Reduction** of the thermohaline circulation

Abrupt sea level rise due to **WAIS collaps**

Melt and precipitation will dilute the salty surface water and reduce the THC: **Cooling of the North, warming of the South**.

Mass loss from the West Antarctic Ice Sheet might lead to a collapse because the bed is 1.5 km below sea level: **3 m sea level rise over a century**

Very high concentrations of **Greenhouse gases**

Greenhouse gas concentrations are far beyond the level seen the last 800,000 years: **Global warming beyond 2°C**

Warming over Greenland of 5-10°C

A NEW and UNKNOWN regime

*Joughin, Nature Geoscience, 2011*

*IPCC AR4, 2007*
CHALLENGES & OPPORTUNITIES
MORE THAN 60% OF THE AREA PROJECTED TO BE URBAN IN 2030
HAS YET TO BE BUILT
• **Use of urban wastelands** for greeneries: on roofs, empty vertical facades, highways, etc...
  
  • brings fresh air
  
  • reduces temperature in summer (avoid urban heat island effect)
  
  • regulates rain run offs
  
  • improves the insulation of buildings
  
  • preserves biodiversity
Green rooftops and walls (1)

Lower temperatures – summer
Increased temperatures – winter
(c 2°C Toronto)

www.igra-world.com

Lower energy use/reduced emissions

Remove 0.2 to 2 kg dust/m²

Health benefit

Reduce wind chill 75%
Heating demand 25%

IMPROVE LOCAL MICROCLIMATE
Green rooftops and walls (2)

Example:
New York City Green Infrastructure Plan:
reduction of sewer overflows by more than 12 billion gallons/year by 2030

Health benefit

Lower runoff – 100% summer 50% winter

Lower flood risk

Remove pollutants

Improve water quality

Improve (river) biodiversity

Sequester carbon (375g/m²)
Policy Framework(s)

- EU 2020 Biodiversity Strategy and the Roadmap to Resource Efficiency
- EU Adaptation Strategy
- Green Infrastructure (GI) Enhancing Europe's Natural Capital
- H2020 Focus Area on Nature-based solutions (NbS)

Policy signals to decisionmakers, planners, promotors to invest in GI and adaptation projects at local, regional, national and cross-boundary level
The Rosetta Stone  EBA – NBS – GI
eco-DRR

working with nature for people
In parallel with reducing its greenhouse gas emissions to mitigate climate change, the European Union also needs to strengthen its resilience to the inevitable impacts of climate change, now and for the future. Adapting to climate change is the way to do this.

The success of Europe’s adaptation efforts is critically influenced by the action of cities and local authorities. Those major centres of population and infrastructure are particularly vulnerable to extreme weather events and other effects of climate change.
People citizen want to get involved!
Ecosystem-based approaches/
Green Infrastructure/
Nature-based solutions

- are ready for use and easily accessible
- involve people and build responsibility
- Job and Business Opportunities
- bring multiple benefits
- are cost efficient and make economic sense
- are to be an integral part of the overall adaptation and mitigation effort and disaster risk reduction effort
Mainstreaming of climate action into EU policies and funds, example

European Structural and Investment Funds (ESIF):
- European Regional Development Fund (ERDF)
- Cohesion Fund (CF)
- European Social Fund (ESF)
- European Agricultural Fund for Rural Development (EAFRD)
- European Maritime and Fisheries Fund (EMFF)

Climate mainstreaming (mitigation + adaptation) in the:
- Legal basis, guidance documents
- Programming (28 Partnership Agreements, ±535 Programmes)
- Implementation (tracking of climate related expenditure)

Preliminary outcome (programming on-going):
- About € 110 billion climate related expenditure, ±24-25% of ESIF
- Contributes to: Europe 2020 Strategy, devoting at least 20% of MFF 2014-20 for climate objectives, climate mainstreaming into a range of EU policies
concluding remark

- **Divest** from measures which have negative impacts on biodiversity and ecosystem services
- **Invest** in measures which contribute to maintain and restore biodiversity and ecosystem services
  - Use available EU financing instruments to implement NbS, EbA, GI, eco-DRR!
- **Invest** in working with nature for people
- **Empower** people
- **Encourage** multisectoral partnerships

- **SEEK CONVERGENCE IN IMPLEMENTATION**
“The choice is ours. It will be made by our generation, but it will affect life on earth for all generations to come.”

Lester R. BROWN

author of “Plan B” & “World on the Edge”

... Thank you for your attention