### Climatic change is still very much with us... despite what the skeptics say!

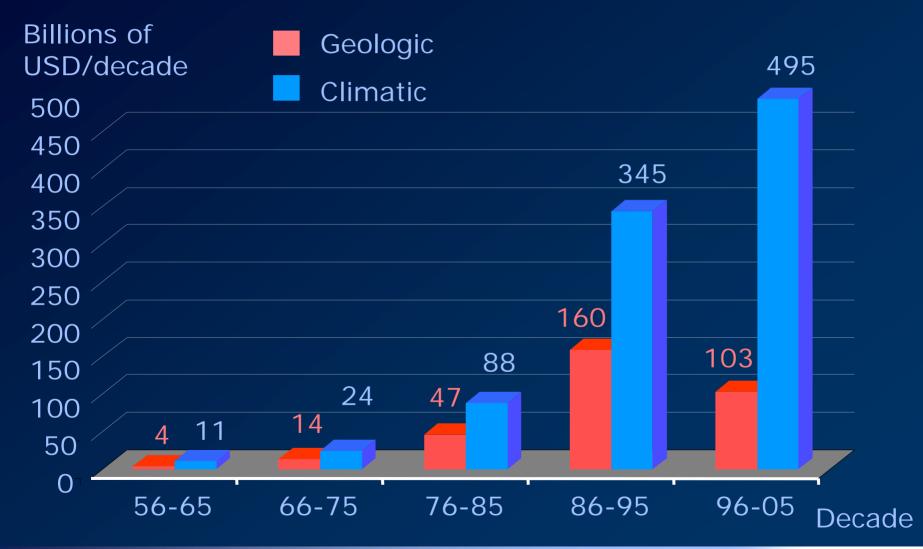
Martin Beniston Institute for Environnemental Sciences University of Geneva



# Even in today's world, climate is a costly business



### Costs related to natural hazards

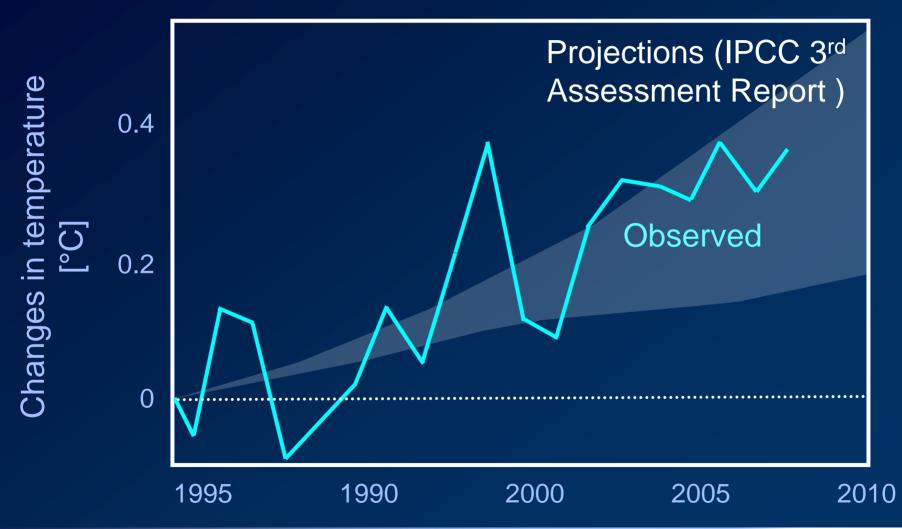




Since the 2007 IPCC reports, climate has shown signs of accelerated change...



# IPCC Projections with respect to Observations





### Feedback mechanisms stronger than expected

Oceanic circulations
Land-use changes
Arctic processes





### One probable cause of accelerated warming: rapid sea-ice contraction in the Arctic Ocean



### Feedback mechanisms stronger than expected

- Certain irreversible thresholds may be reached earlier than expected...
- Whatever we achieve in terms of policy, climate is likely to warm by at least 2°C over 1990 baseline levels
- This is the upper bound of what the EU was aiming to impose at COP-15 in Copenhagen, last December



# Some reasons to address issues related to climatic change quickly...



#### Climatic impacts...

 $\Delta T$  compated to 1980-1999

	0 1		3 4	4 5
Extremes	Increase		Lar	ge increase
Natural systems	Risks to so	ome	Ris	sks to many
Distribution of impacts	Negative for Positive for		٦	legative for almost all
Aggregate impacts	Positive ar market	nd negative impacts		Negative in all metrics
Tipping points	Low risk			High risk

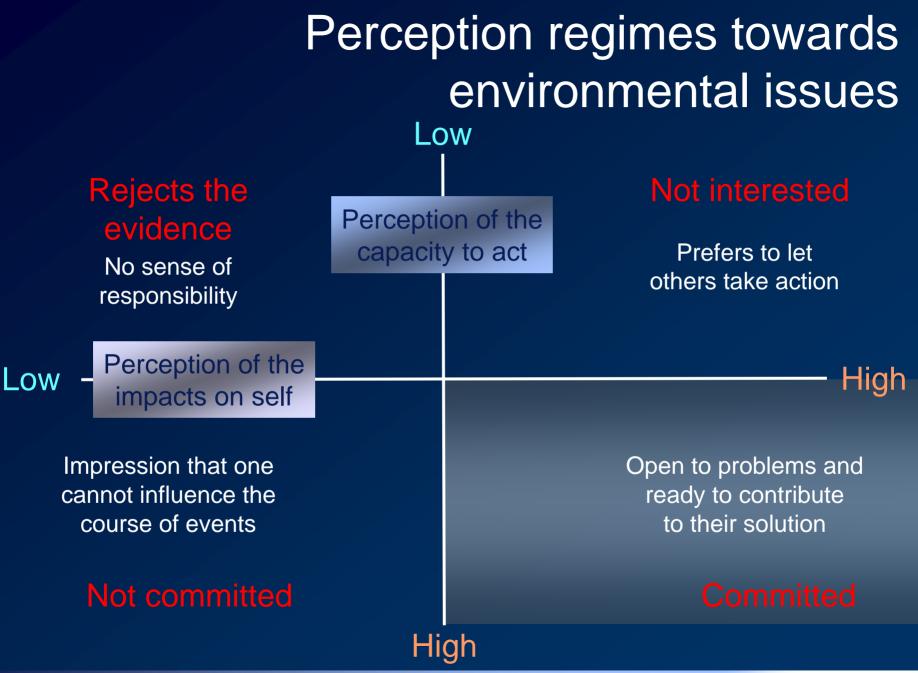
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**DE GENÈVE** 

## Do people really care?







# The way forward



## Where we should be going...

- To efficiently move forward with addressing climatic change, we need to:
  - Encourage that the climate issue remains on the political agenda at the highest levels
  - Promote the engagement of civil society (e.g., awareness-raising, education)
- Climate change does raise ethical questions of equal access to resources, technologies, and education that also need to be addressed simultaneously...



# MANY THANKS FOR YOUR ATTENTION!

www.unige.ch/climate

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