

Forest Biodiversity and CC Adapation



**A short warm of day 3 of
The CBD/UNFF Workshop**

The central role of forests in climate change



Forests are vulnerable

Impacts on ecosystems, people and the wood chain



Forests emit GHG



Second most important source of GHG emissions

Forests can:

- increase resilience of people and ecosystems (= adaptation),
 - fix and maintain carbon (= mitigation).

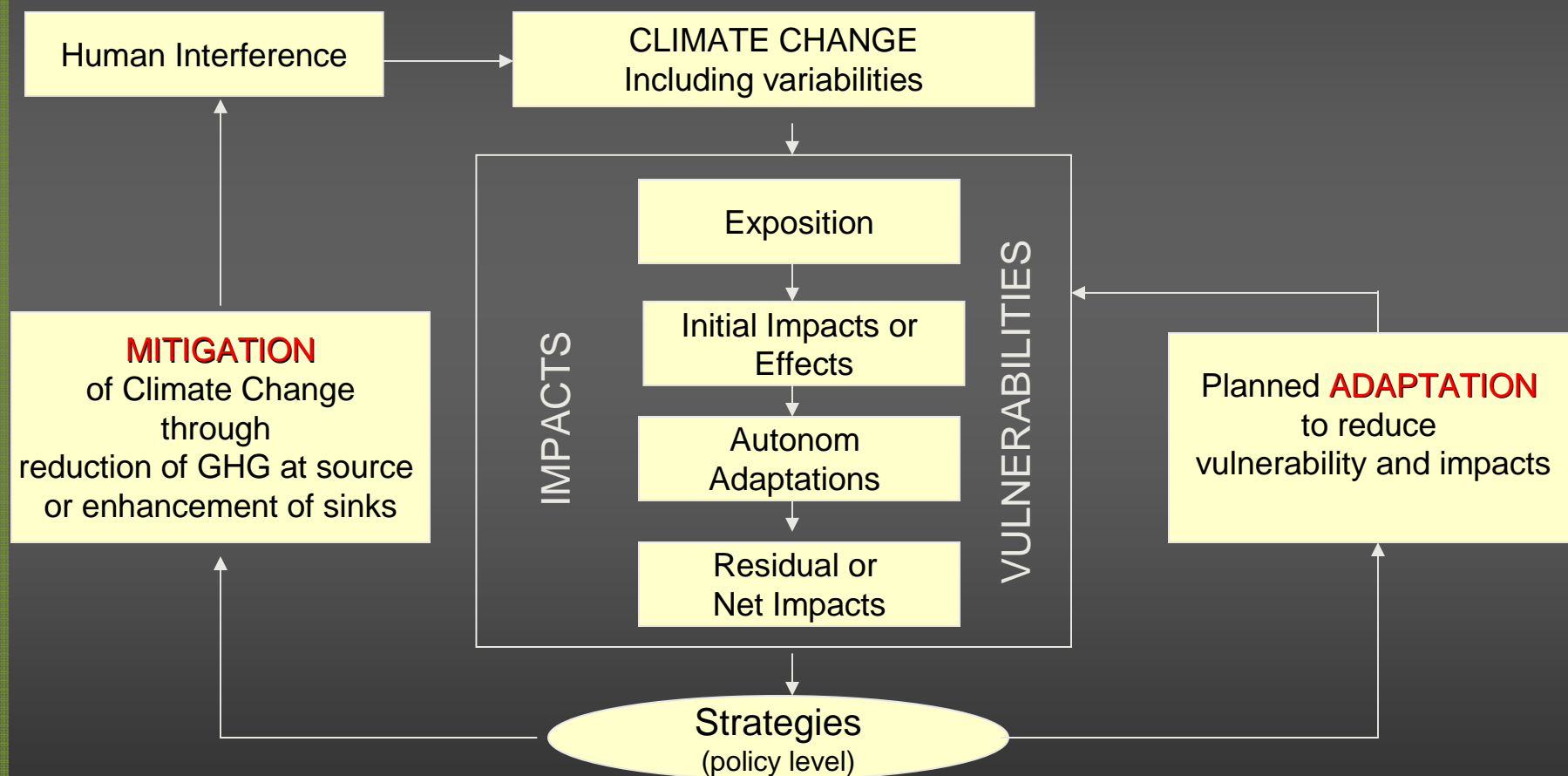


Mitigation and adaptation options in the forest sector need to be fully understood and used in an integrated way in the context of promoting sustainable development

Forests Biodiversity in Climate Change:

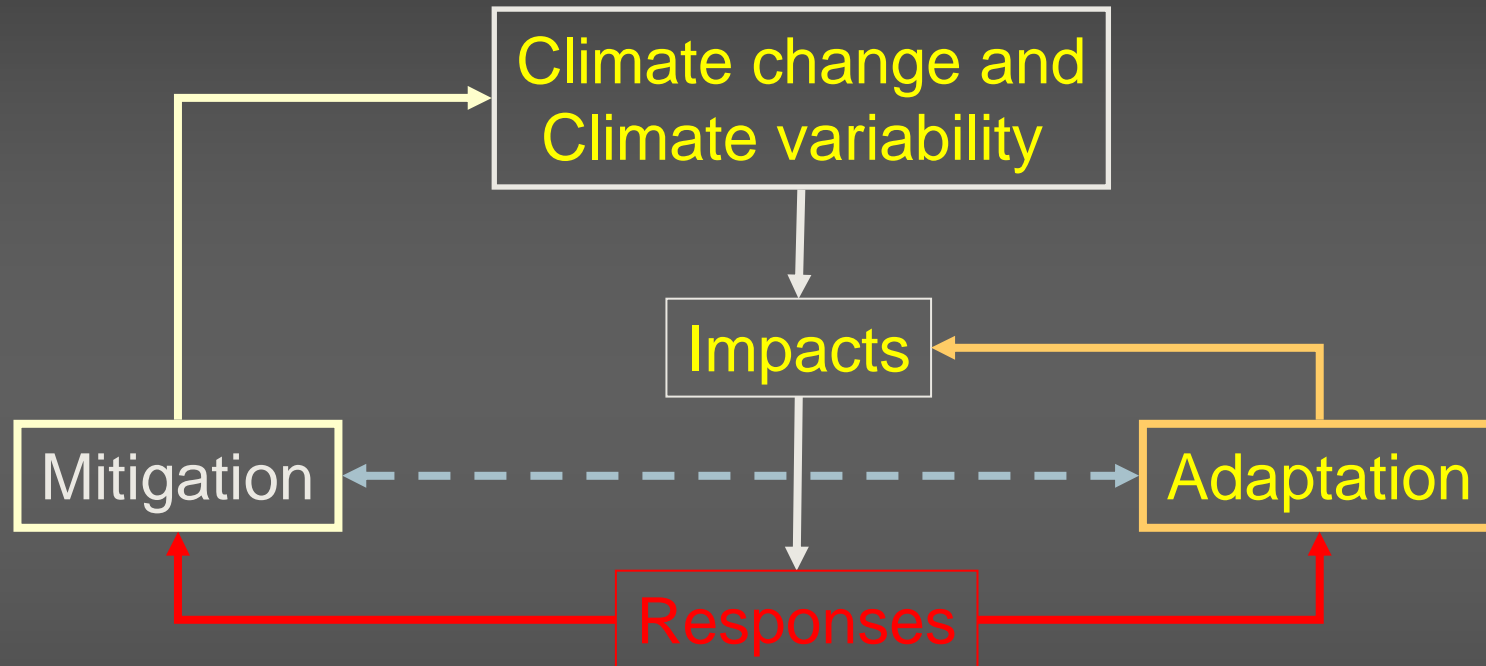
- ⇒ If average CO₂ concentration continues to increase to 550 ppm or higher, forests will become highly vulnerable → high risk that many forests that are GHG sinks become sources of GHG emissions
 - Forests are a mitigation option now and over the next 50 years or so, a necessary transitional measure towards a low carbon economy
 - Need to increase resilience of forest trees and ecosystems at the same time as using forests as a mitigation option.
- ⇒ Nevertheless, presently, the potential of forests as a mitigation option is huge (REDD+)
- ⇒ **Forests are vulnerable to the effects of climate change and climate variability**
- ⇒ **Forest can fix and maintain carbon**
- ⇒ **Forests can increase resilience**

Strategies to face Climate Change



Source: IPCC, 2001

Forests and climate change



... maintaining and increasing ecosystem C pools and C sequestration – reducing emissions from biosphere

... maintaining and increasing ecosystem resilience – reducing vulnerability

The role of SFM in climate change

Adaptation

Maintaining and increasing ecosystem resilience – reducing vulnerability

⇒ Forest ecosystems are affected by climate variability/change:

What are the direct and indirect impacts

- forest-dependent people?
- on the forestry production chain?
- at the landscape level?

⇒ How can forests and trees contribute to reduce vulnerability (of social systems and ecosystems)?

→ **A forest management agenda that includes a CC adaptation analysis and measures can increase the value of forests**

“Avoid the unmanageable and manage the unavoidable..” (Sigma Xi)



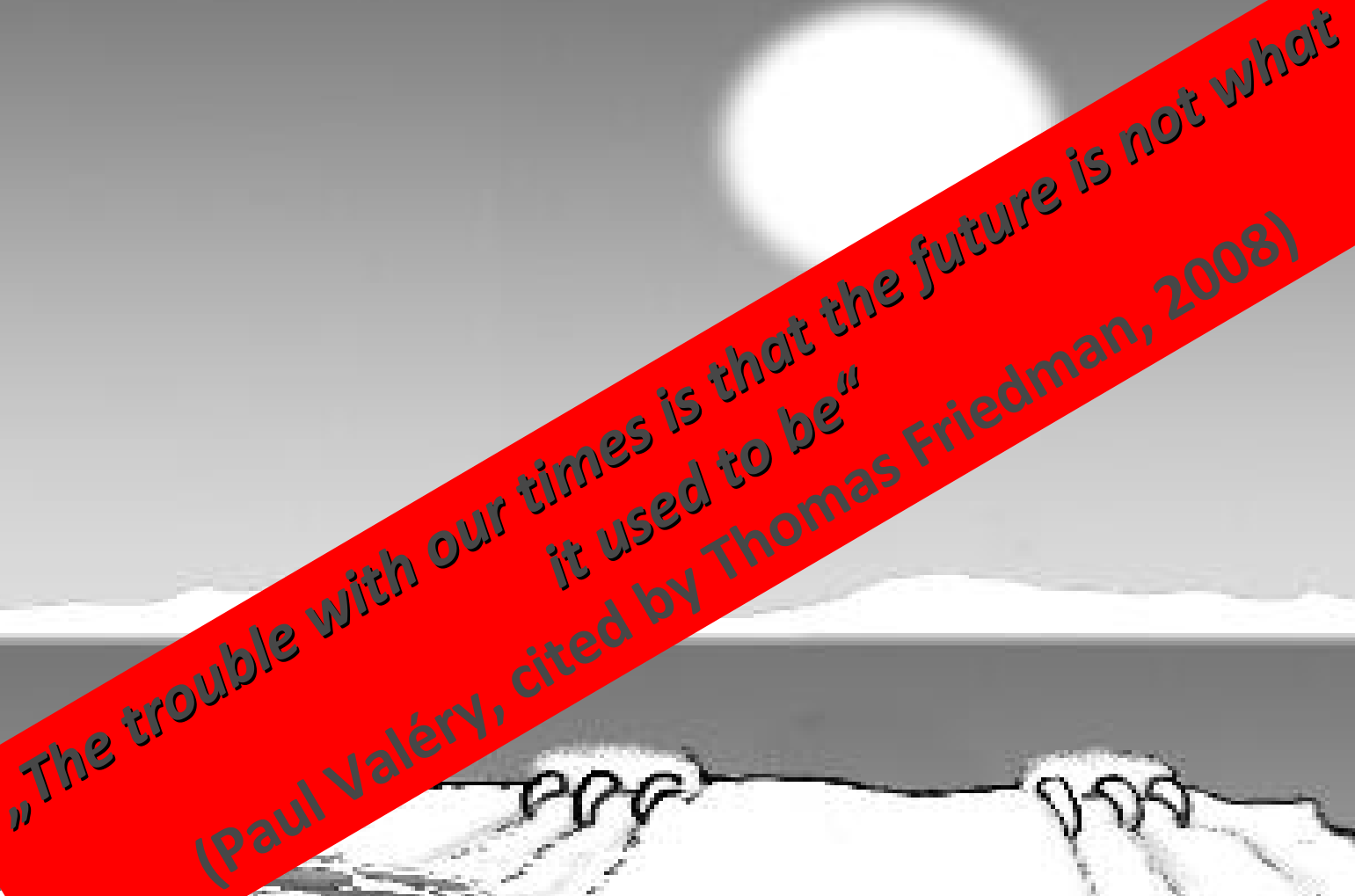
Adaptation process

1 Identification and assessment of the impacts and the vulnerabilities of the natural and social systems

3 Planned Adaptation measures



2 Build up Capacities for adaptation



**„The trouble with our times is that the future is not what
it used to be“
(Paul Valéry, cited by Thomas Friedman, 2008)**

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