



Definition of Mitigation and Adaptation

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IPCC Glossary

- [IPCC Glossary](http://climateknowledge.org:16080/figures/WuGblog_figures/RBRWuG0049_IPCC_Glossary.pdf)
http://climateknowledge.org:16080/figures/WuGblog_figures/RBRWuG0049_IPCC_Glossary.pdf
- **Mitigation** An anthropogenic intervention to reduce the *sources* or enhance the *sinks* of *greenhouse gases*.
- **Adaptation:** Adjustment in natural or human systems in response to actual or expected climatic *stimuli* or their effects, which moderates harm or exploits beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation:



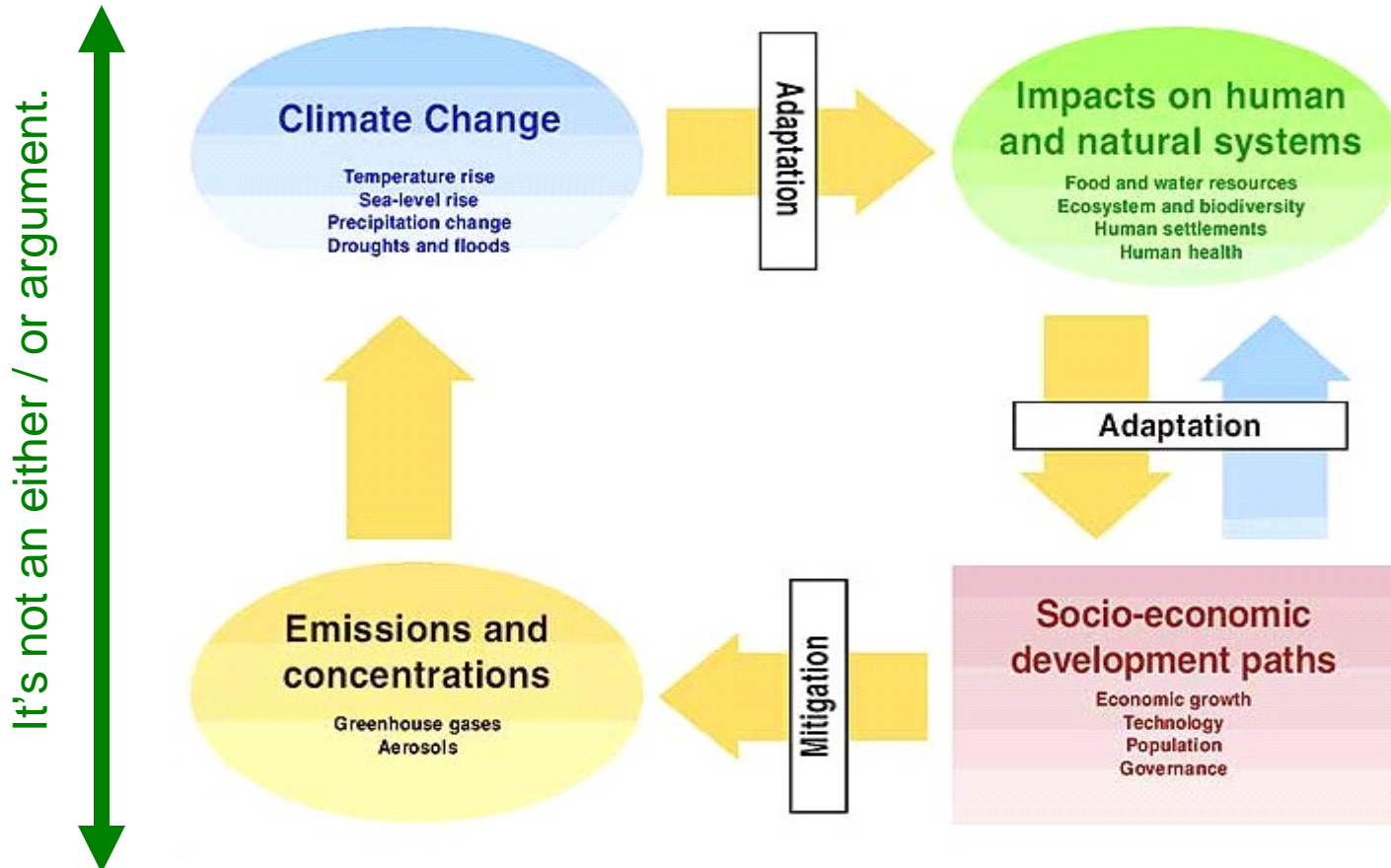
Some definitions

- **Mitigation:** The notion of limiting or controlling emissions of greenhouse gases so that the total accumulation is limited.
- **Adaptation:** The notion of making changes in the way we do things to respond to changes in climate.
- **Resilience:** The ability to adapt.
- **Geo-engineering:** The notion that we can manage the balance of total energy of the atmosphere, ocean, ice, and land to yield a stable climate in the presence of changing greenhouse gases.



Science, Mitigation, Adaptation Framework

Adaptation is responding to changes that might occur from added CO₂



Mitigation is controlling the amount of CO₂ we put in the atmosphere.



Thinking about ADAPTATION

- Adaptation: What people might do to reduce harm of climate change, or make themselves best able to take advantage of climate change.
 - Autonomous that people do by themselves
 - Can be encouraged by public policy
 - Command and control tell you to do it
 - Incentives
 - Subsidies
 - Can be anticipatory or reactive
- Adaptation is local; it is self help.
- Adaptation has short time constants - at least compared to mitigation → Hence people see the need to pay for it.
- Some amount of autonomous-reactive adaptation will take place.
 - [Moving villages in Alaska](#)



Thinking about MITIGATION

- Mitigation: Things we do to reduce greenhouse gases
 - Reduce emissions
 - Increase sinks
- Mitigation is for the global good
- Mitigation has slow time constants
- Mitigation is anticipatory policy
- This is the “second” environmental problem we have faced with a global flavor.