



Universität
Basel

Research Project

Climate change: Learning on a slippery slope

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Project title Climate change: Learning on a slippery slope

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In many environmental problems there is some likelihood that human resource use can induce substantial environmental changes. Often, the direction and magnitude of these changes are only imperfectly known in advance and can only be learned, if change is experienced. However, there is a danger of starting a change that cannot be reversed or even contained later on, that is, we might start to skid down a slippery slope. A typical example is climate change: We have much knowledge concerning the current state of the climate system but can only speculate about the properties of a world after substantial climate change. Learning the costs of climate is only possible, if we permit (some) climate change, but we might start feedback processes that we cannot stop or reverse. In this project, we analyze optimal behavior in a setting where there is uncertainty regarding the costs and the dynamics of changes. In particular, we analyze under which conditions it is optimal to be conservative, that is, to maintain a resource system in a well-known state and thus not to move onto a slippery slope. We will apply this framework to climate policy, in particular to assess the ubiquitous 2°C objective.

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