

Economics of Climate Change and Natural Resources Management

The PhD topic falls within LIFE's strategy on Climate Impacts, Adaptation and Mitigation. The PhD will be part of the emerging elite research group within 'Environment and Natural Resources: Economics and Management', which is established between Forest and Landscape and Institute of Food and Resource Economics.

Climate change raises several important questions and challenges for our management of the natural resources and the environment, and regarding the potential economic impact of these to society. For this PhD topic three different pathways have been identified which may be addressed in the PhD – potentially in combinations. Examples of possible pathways and related research questions are:

The inherent uncertainty about climate impacts on ecosystems, e.g. forests, natural habitats, seas and fresh waters will affect the way we manage these to secure goods and services of value to us. How can we analyse and understand these challenges and develop economic theory on management to take the uncertainty into account and/or provide new empirical insights on possible performance of different strategies?

Adaptation measures and new management approaches for our environment and natural resources are in need of economic research and analyses to open up and explore relevant pathways for coping strategies at all spatial and social scales as well as in the time domain. Which adaptation strategies are likely to be implemented by different types of agents, and are all equally socially desirable? In what ways may mechanisms and regulation guide and enhance the social benefit of adaptation efforts made by independent agents?

Finally, turning to the issue of climate change mitigation, key economic research questions remain open and calling for new insights to be obtained. This includes issues related to incentive mechanisms, regulation of resource use, but also e.g. ecological economic models of analysing impacts of such institutional frameworks. How can improved natural resource management decisions and the institutional mechanisms surrounding these, enhance the social benefits from mitigating effects of e.g. forest ecosystems and other land uses?

The successful applicant will be part of and supervised within the above mentioned emerging elite area within the departments of Forest and Landscape and/or Institute of Food and Resource Economics.

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