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Impact of Information about climate change in Forest (InFor)

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Summary

Context — Natural hazards represent the major threat for forest worldwide. The forest owners try to cope with these hazards through risk management strategies. However, climate change impacts the characteristics of the natural events bringing uncertainty in the decision-making process of forest owners, especially concerning frequency and intensity of disturbances. There is then a lack of clarity about the knowledge and quantification of the natural hazard characteristics. These risks are often not well known by the forest owners and their quantification remains uncertain at present. Therefore, forest owners must take their decisions in a context of uncertainty where hazards are subjectively assessed and perceived, according to their knowledge but also according to the information provided to them. However, new information about the knowledge of these disturbances, improving the quantification and reducing the uncertainty, may arrive over time and modify the decisions of the forest owners.

Objectives — The project aims to study the role of information in the decision-making process of forest owners. In particular, the main research question will be about the impact of the arrival of information on risk management decisions like prevention, adaptation and insurance.

Approaches — Such an impact will be theoretically and empirically studied. For that purpose, we propose a theoretical model allowing to, first, analyze the forest owner's decision in an uncertain context and, second, to assess the value of information. We then propose to test the theoretical results through experimental economics.

Expected results and impacts — We expect that forest owners will behave differently when the arrival of information reduces uncertainty on the occurrence of the damage or uncertainty on the magnitude of the damage. We also expect that the value of information differs function of the scenario considered.