

BETTER INTEGRATION OF LEGAL ASPECTS IN CLIMATE SCENARIOS

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INTRODUCTION

This research aims to determine 1) whether and which legal aspects should be integrated into scenario assessment frameworks; 2) the main barriers against such integration; 3) the currently feasible options of integration; and the aspirations of legal elements in scenarios towards which we should direct future collaborative research between legal scholars and climate scientists.

METHODOLOGY

We first pre-interviewed three climate modelling experts to map out the most prominent research teams and experts for our research question. The recommended experts were based on our selection criteria for interviewees: 1) being familiar with climate scenarios and SSPs from diverse fields of expertise, and 2) being familiar or at least interested in the legal aspects of the broad context of climate scenarios and response strategies. Then we used snowball sampling to expand to a larger sample of interviewees. The final interviewees totalled 24 from a variety of fields of expertise (Table 1). A thematic content analysis of the transcribed interview recordings was used to find answers to our research question.

Number of experts	Fields of expertise
13	Modelling: climate impacts, energy, mitigation, and climate policy modelling, varying from the global to national levels
4	Climate, energy, and economic policy analysis based on modelling results (quantitative)
3	Environmental and climate Law
2	Climate policy, political science, and governance
2	Ethics

Table 1: An overview of the fields of expertise of interviewees

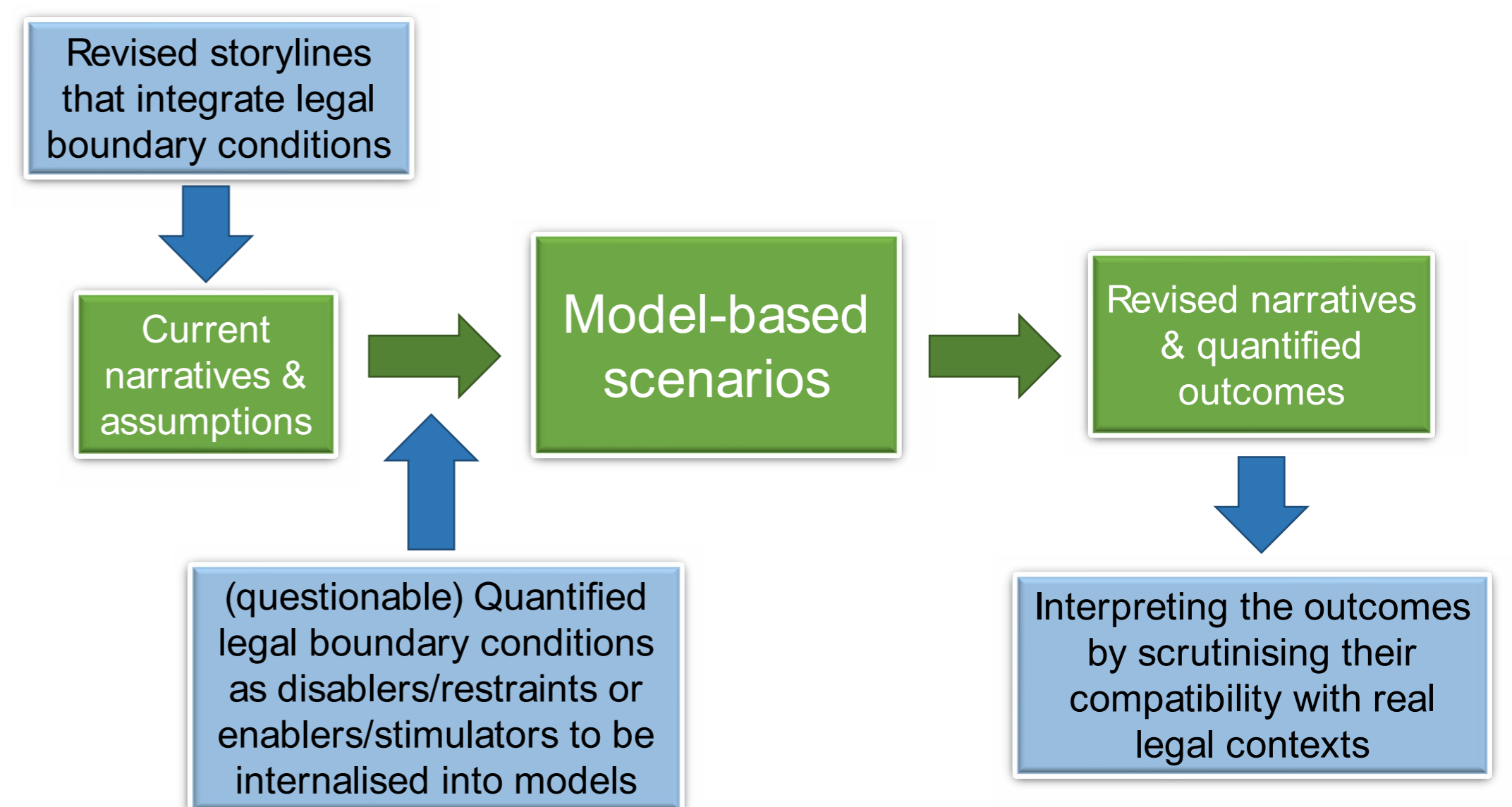


Figure 1: Three feasible actions for integrating law into climate scenarios: revising storylines; legal compatibility check; and (more controversially) quantifying legal boundary conditions.

RESULTS

We found four main areas of legal aspects that interviewees felt should be integrated into scenario assessments:

- 1) implementation and enforcement of climate targets;
- 2) key normative principles, particularly justice and fairness;
- 3) (un)certainities of laws and policies; and
- 4) improved applicability of scenarios in regional and local legal and political contexts.

Three major categories of feasible actions can be summarised from our empirical study (Figure 1):

- 1) Revising storylines to integrate key legal boundary conditions that represent the role of law in the latest socio-economic developments.
- 2) Interpreting modelling results by scrutinising their compatibility with real legal context.
- 3) Internalising certain legal factors into models and suggested to start with very specific policies (more controversial).

DISCUSSION & CONCLUSION

The four crucial legal aspects identified in Figure 2 can be the first attempt for revising current narratives and assumptions in scenario assessments. We concluded these integrations as a legal reality check. However, the value and feasibility of quantifying legal boundary conditions for these aspects needs further research, i.e. to define the boundary of intergration. This can be a practical map of future integration steps between law and scenario assessment.

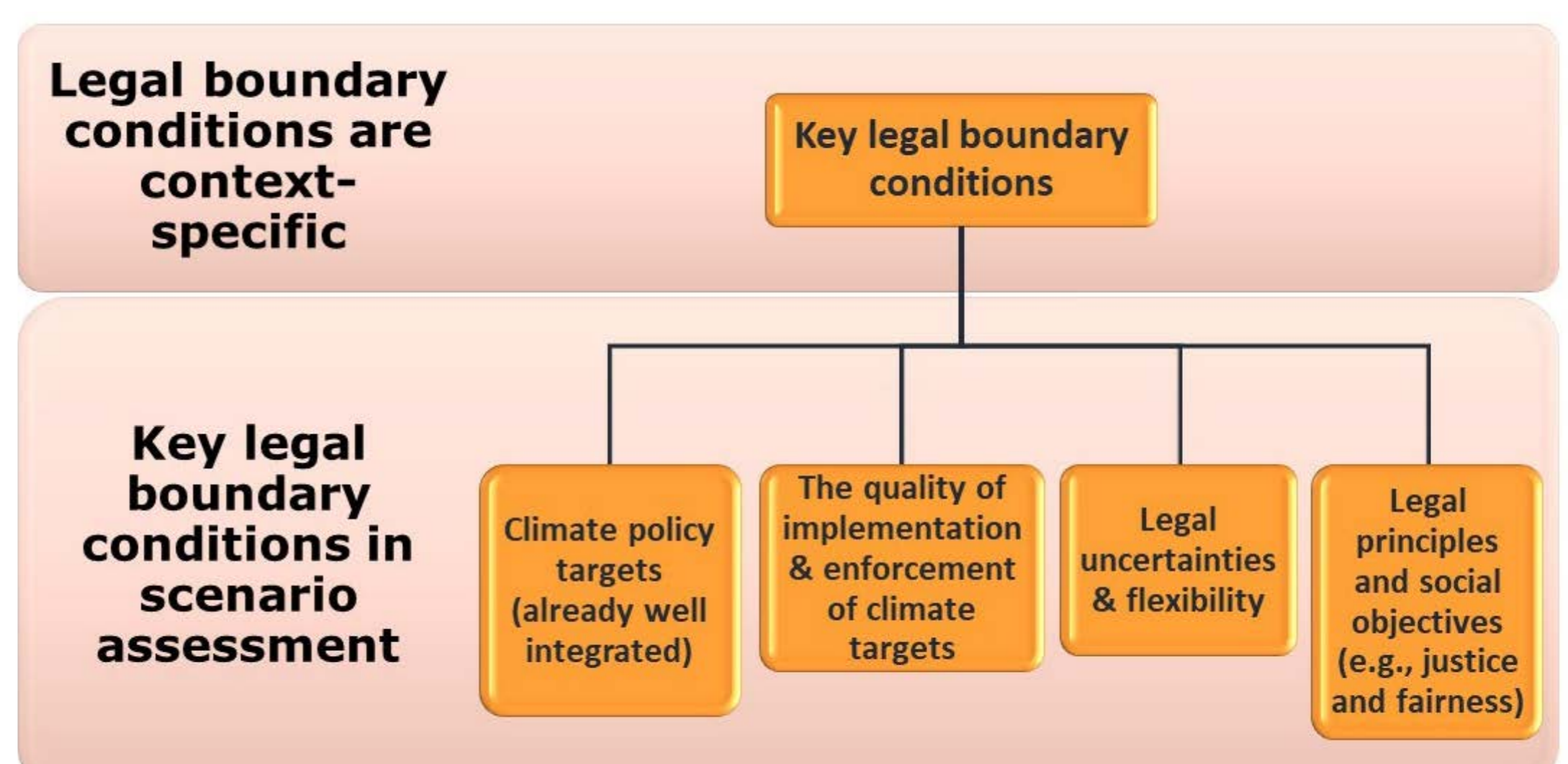


Figure 2: key legal boundary conditions that should be integrated in scenario frameworks and the likely quantifiable legal boundary conditions.