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Distributive justice principles for integrated assessment models: a comparative study on interregional justice

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Justice in the climate context has gained more attention in the last decade. One of the main reasons is the increasingly pervasive and aggressive impact of climate change on societies and economies. Existing inequalities and disparities between sectors, regions, and generations are often exacerbated by proposed or applied policies. Hence, protecting different groups' rights becomes more and more necessary in the climate change adaptation and mitigation policies. It is therefore essential to understand the subjective notions of the ethical principles that underlie the policies, by categorically examining these principles before taking action.

For this reason, this study explored different distributive justice principles in integrated assessment models using a descriptive approach. It resulted in a classification of the five most common ethical principles: Utilitarianism, Rawlsianism, Egalitarianism, Prioritarianism, and Sufficientarianism. These principles have been operationalized to find the optimal climate policy for future emissions. The principles have been applied to the Regional Integrated Climate-Economy (RICE) model for a comparative analysis on interregional justice.