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Justice (i.e. fairness, equity) is often a neglected topic in risk management, while it contributes to sustainability. A literature review has been conducted to investigate why and how justice is considered within flood risk management, identify gaps when it comes to its contribution to sustainable development and discuss justice frameworks in their applicability to societal risk management in general, and flood risk management in particular. 19 scientific documents published between 2015 and 2020 are reviewed and analyzed.

Justice is an underdiscussed topic when it comes to decision-making of flood strategies, while it is important for several reasons. First, because of the unevenness of the impacts of floods on different people and places. Secondly, for institutional reasons such as the formal requirement of some policies (e.g. the European Floods Directive) to strengthen public support. Thirdly, because the perception of fairness matters, both at the individual (exposed people are more willing to seek individual complementary measures) and collective levels (protests can emerge and legitimacy be questioned if the strategy is perceived as unfair).

Justice issues raise at all stages of flood management: from preventive strategies and resilience building processes to emergency responses and recovery plans. The literature distinguishes between procedural and distributive justice. The judgement of what is fair or not relates on justice philosophies such as utilitarian, egalitarian, Rawlsian, elitist, hierarchical approaches. Which one applies depends on the country, the type of risk and the type of strategy.

The reviewed literature shows a strong focus on social and spatial justice issues. However, when it comes to the contribution of fairness to sustainability, the impacts on non-human entities (e.g. ecological, multispecies justice) and the long-term (e.g. intergenerational justice) may also be relevant to consider, although they are identified as gaps in the selected literature.

Since framing justice is complex, a risk justice analytical framework is suggested that gathers several facets of existing justice literature and applies specifically to societal risk management. Risk justice considers both procedural and distributive justice under four dimensions: social (who?), ecological (what?), spatial (where?) and temporal (when?). Considering all of them can reduce institutional vulnerabilities during the decision-process, increase chances of success of the strategies and contribute to sustainability. Risk justice translates into practical tools such as a matrix which is offered for flood managers to think its various aspects. The framework needs further elaboration and is open to suggestions.

**Institutional settings in flood hazard and risk management**