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### Citation

Geukes, H. H., Oudenhoven, A. P. E. van, & Bodegom, P. M. van. (2023). Decision-making on nature-based solutions for multifunctional coastal climate adaptation. *Egu General Assembly 2023*. doi:10.5194/egusphere-egu23-15297

Version: Publisher's Version

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Downloaded from: <https://hdl.handle.net/1887/3621440>

**Note:** To cite this publication please use the final published version (if applicable).



## Decision-Making on Nature-Based Solutions for Multifunctional Coastal Climate Adaptation

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Nature-based solutions (NbS) are fast becoming the norm for multifunctional climate adaptation to the combined challenges of increased sea-level rise, coastal population densities, and erosion of sandy shores worldwide, delivering functions such as flood prevention, recreation, and biodiversity benefits. However, it remains a challenge to the research field to inform decision-makers well on the outcomes and trade-offs of designing, planning, and managing the multifunctional NbS. This study set out to identify the information requirements by decision-makers on NbS for coastal climate adaptation. Using the Sand Motor in The Netherlands as a case study, we applied a policy science framework to distinguish four stages of decision-making to quantitatively analyse the content of functions and indicators utilized per stage in public policy documents. These stages are the ambition, political, bureaucratic, and provisioning processes. This study is the first comprehensive empirical investigation distinguishing these crucial stages of decision-making to analyse NbS information requirements. Our results show, most notably, that as the project developed through the decision-making stages, the content of the functions and indicators changed from abstract to concrete. And, with it, the content of the information required shifted significantly. These results suggest that it is crucial for academic researchers to recognize the decision-making process their information will be used in and adapt its content and level of abstraction accordingly to increase its uptake in decision-making. This study lays the groundwork for future research into the multiple dimensions of NbS decision-making and for the increased understanding of the information requirements on evaluation and trade-offs in planning, designing, and managing NbS, to increase the ability of NbS to deliver multifunctional coastal climate adaptation for sandy shores worldwide.