

BACKGROUND

Public participation and integration of local knowledge are increasingly relied on for **disaster risk reduction (DRR)**, but these require **public acceptance (PA)**.

Because NbS are multi-functional and embedded in social-ecological systems, they rely more on **values and societal interests** than traditional “grey” infrastructure measures, bringing PA to the forefront.

We **synthesize recommendations and lessons learned for how to increase PA** of NbS in comparison with grey measures, and the **positive outcomes** this can lead to.

KEY WORD SEARCH IN SCOPUS

Actors to accept (n=10)

OR

Ways to accept (n=17)

AND

Disaster risk reduction and NbS (n=34)

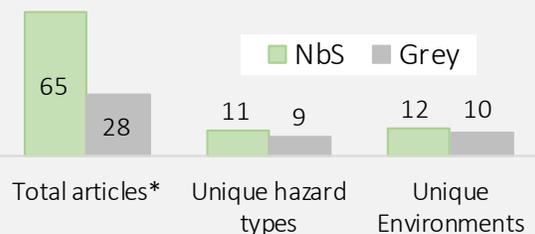
AND

1990 - 2019

Screening

N = 99 peer-reviewed articles

ARTICLE CHARACTERISTICS

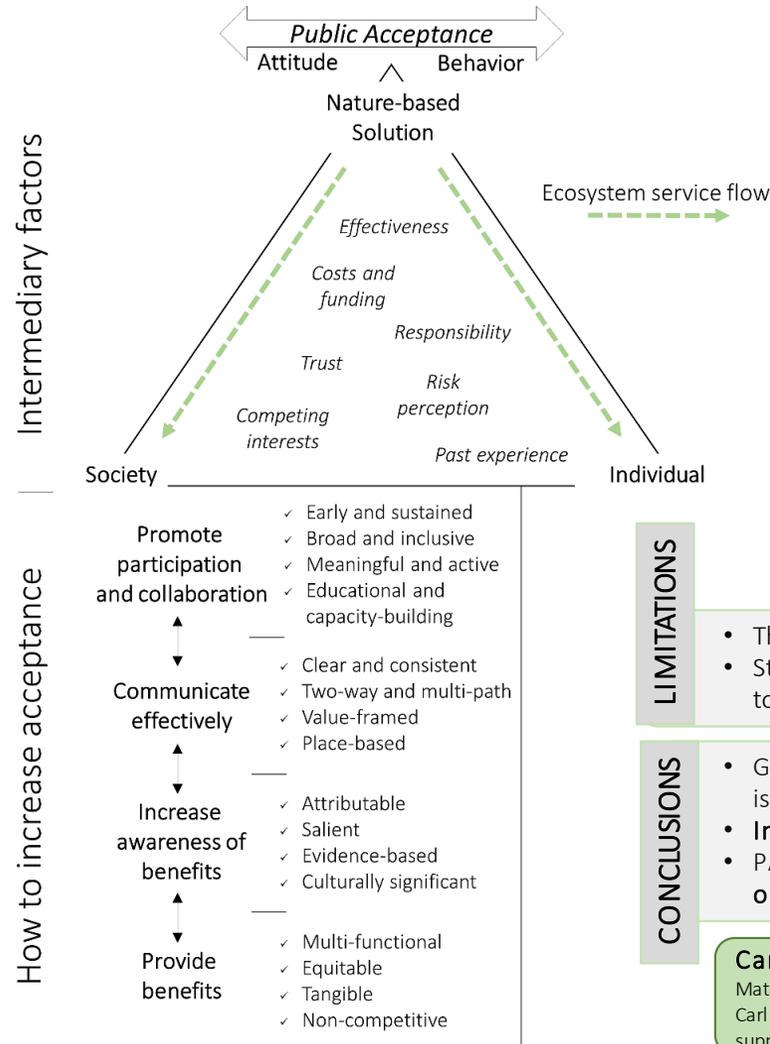


*6 articles describing both NbS and grey are excluded from these results

RESULTS

HOW? Using the Public Acceptance of NbS Framework (PA-NbS)

Four recommendations with four success criteria each act on and through intermediary factors at the **nexus of the individual, society, and NbS** leading to PA. **Ecosystem services** represent the crucial factor of **co-benefits**. PA exists on a spectrum and is manifested through **public attitudes and behaviours**.



WHY?

Public acceptance can lead to positive outcomes for NbS projects

The percentage of articles describing NbS (n=65) and grey measures (n=28), respectively, that mention positive outcomes of PA is shown (e.g. 29% of NbS articles mention outcome #1). Outcomes highlighted in green are mentioned at least twice as frequently among articles describing NbS.

Positive outcomes of public acceptance - percent frequency (%)

	NbS	Grey
1. Cooperative maintenance and management	29	25
2. Integration of local skills and knowledge	22	29
3. Protection against competing societal interests	29	7
4. Reducing costs and generating funding	20	18
5. Sustainable use	23	7
6. Upscaling and repetition	20	7
7. Cooperation of private land holders	17	0
8. Cooperative monitoring and evaluation	14	4
9. Keeping project timeline and plans on track	11	7
10. Cooperative implementation	14	4

LIMITATIONS

- The public often consists of competing stakeholder groups and thus should be **segmented**.
- Strategies for increasing positive public attitudes or for increasing positive public behaviours towards NbS may differ and **should be tailored to specific contexts and desired outcomes**.

CONCLUSIONS

- Going **beyond one-way education campaigns** and presentation of pro-NbS evidence to the public is needed for increasing PA of NbS.
- **Increasing awareness of benefits** is currently an underemphasized strategy for increasing PA.
- PA of NbS involves **different and often more important success factors and potential positive outcomes** than PA of grey measures and thus should be a focus within NbS projects.

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