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Achieving equitable decision-making in nature-based solutions

Understanding barriers and enablers shaping local involvement in a Scottish coastal town

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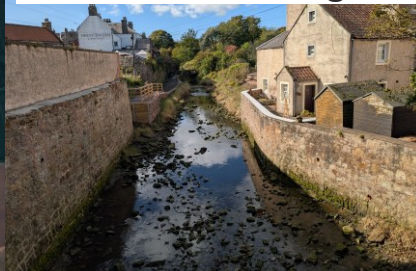
British Ecological Society Symposium, 2026

Introduction & Background

Anstruther



Dreel Burn looking Westwards



Dreel Burn looking Eastwards towards the coast



Coastal end of Dreel Burn

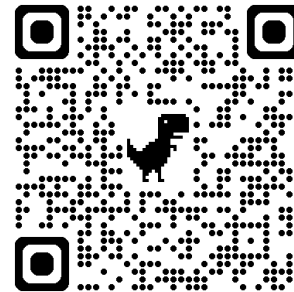


Dreel Burn

Introduction & Background



- **Increasing attention on social justice in NbS**
 - The IUCN Global Standard for NbS
 - Raising standard of stakeholder engagement
 - Whose knowledge counts



Research gap and questions



Citizen involvement is an important aspects of justice. Shaped by barriers to design enablers

Overarching goal is to **understand how citizen involvement** in NbS activities is experienced at the local level, **barriers and co-develop solutions** with local actors

Research questions

1. What factors limit or encourage involvement in NbS and related initiatives?
2. What support do local groups need to better involve people in NbS and related initiatives?

Case study, data collection and analysis

Why Anstruther?

- Strong civic & voluntary networks
- Parts of the town is flood-prone
- Dreel Burn under ecological pressure
- Many nature-related activities underway

Limitations

- Collected views of some, but not all, local people.
- NbS abstract, so other term used.

The Dreel Burn Project

- Community-led river restoration NbS
- Goal: clean, biodiverse, vibrant river
- Supported by Nature Restoration Fund

Case study, data collection and analysis

Questionnaire survey 2024

116 responses

94% local residents

74% 10+ years residence

Workshop 2025

10 participants

2 breakout groups

2 rounds of discussions



Local involvement



52%

Not familiar
with NbS term



77%

Want to see
more NbS-related
activities



90-95%

affirm nature's
role in wellbeing



57 + 15%

Interested in getting
involved or already
involved

- Support for NbS is high
- Many people are not aware of the term NbS,
- But recognise nature's benefits and several activities that may relate to NbS
- Willing to support and get involved in such activities.

Local involvement

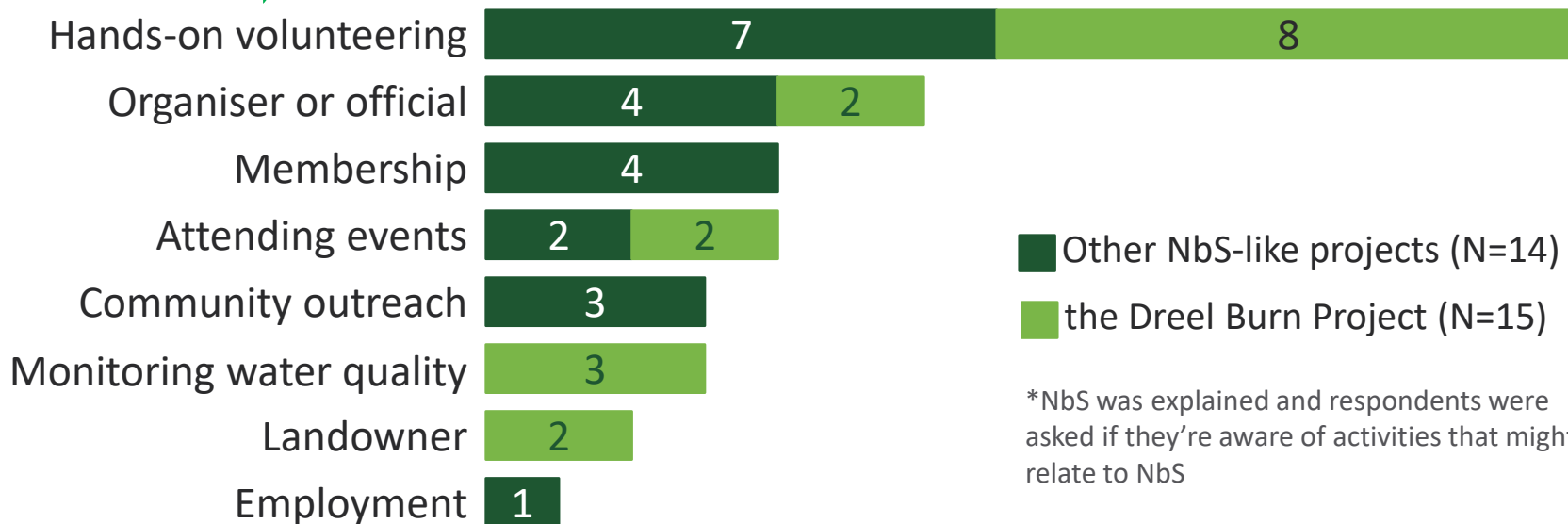
85% aware of NbS-related activities* but low involvement despite high interests

28% Involved

72% Not involved



What does the 28% do?

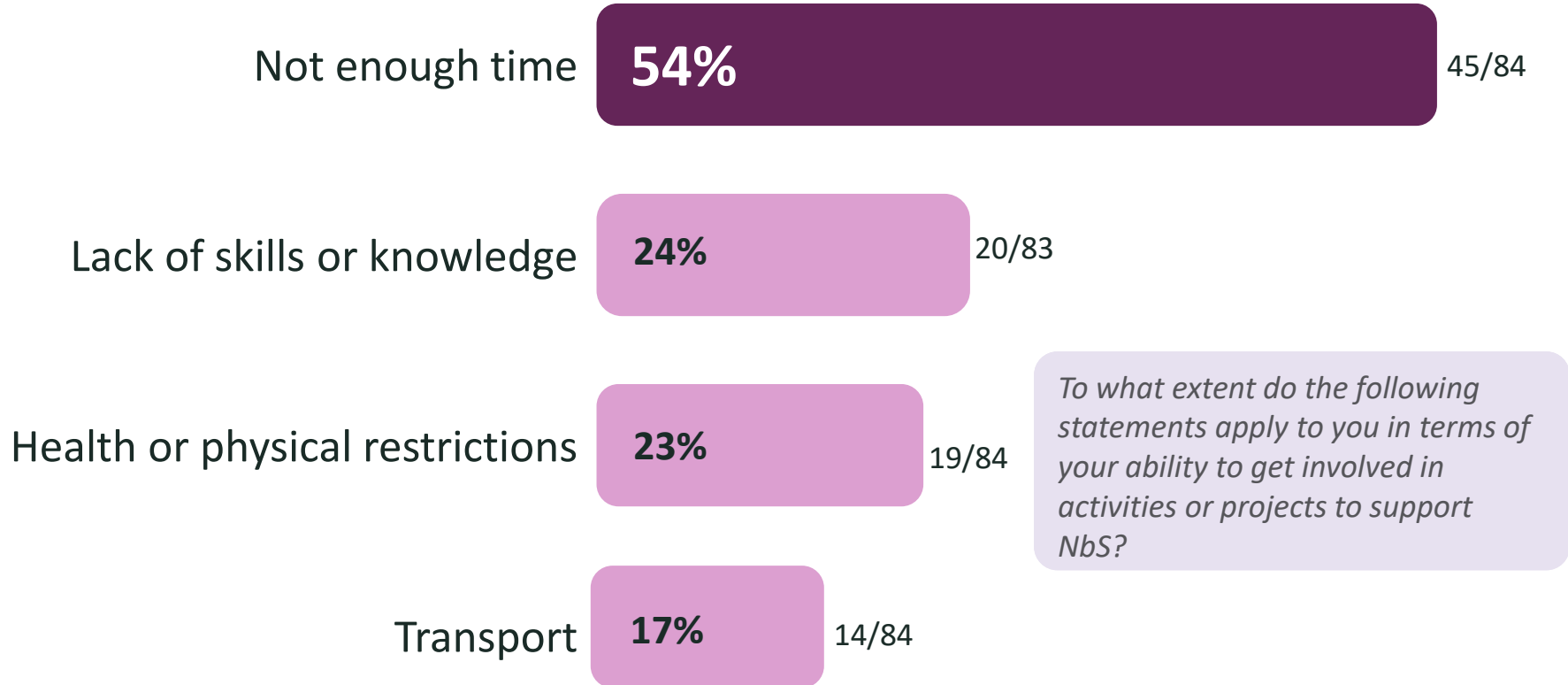


Other NbS-like projects (N=14)

the Dreel Burn Project (N=15)

*NbS was explained and respondents were asked if they're aware of activities that might relate to NbS

Barriers to local involvement





BARRIER 01

Time

64 respondents mentioned it in open text as the single most common barrier



Time and availability – I am a full-time carer for ... sufferer in the family, 24 hours a day, every day, on call.”

Survey respondent, 2024

Barriers to local involvement



Work responsibilities

Most community & NbS events run during the working day



Caring responsibilities

Childcare and family duties occupy people's time



Other volunteering interest

Many other local activities compete with NbS related activities

Barriers to local involvement



Physical access

- Health & age, childcare, transport, weather
- Respondents aged 45+ raised health-related issues more often than younger respondents



I am interested..., but I am eighty years old and not fit."

Survey respondent, 2024



Social access

- Small politics: different groups doing their own thing
- Lack of inclusivity: feeling you don't belong
- Feeling of lack of expertise



*Local cliques and personalities **not** being kind to new people."*

Survey respondent, 2024

Barriers to local involvement in NbS



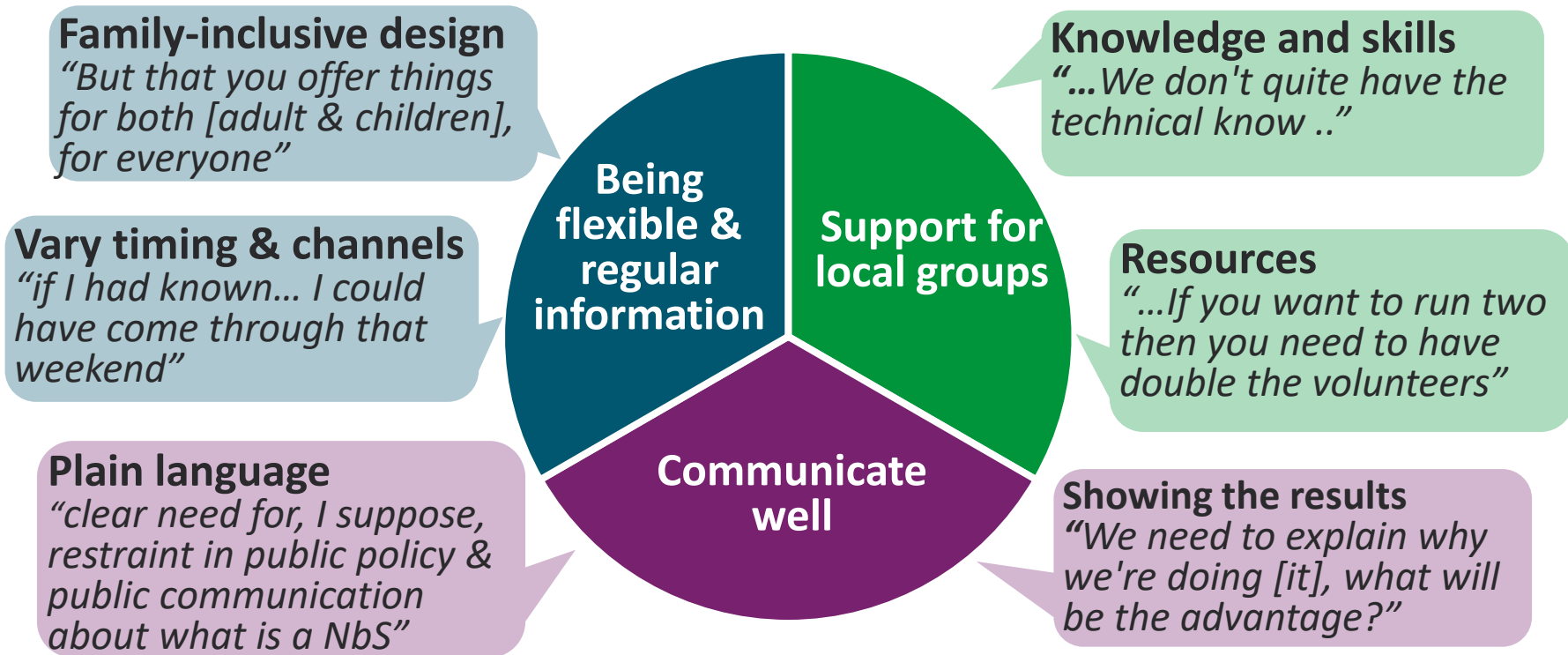
Local groups act as the medium for involving people, but they face challenges



One person wears many hats and is involved in lots of different organisations and projects locally, and it's exhausting"

Workshop participant, 2025

Co-constructing ways to address barriers



All quotes: Workshop participants, 2025

Discussion and conclusion

Key message: Willingness to participate is not the barrier: lack of awareness, time constraints, coordination capacity, and inadequate intermediary support limit involvement in NbS-related interventions



Policy relevant

Aligning NbS actions with wider local priorities, funding & capacity building



Practical implication

Partnership, clearer communication & updates on progress & seeking private finance



Future research

How NbS framings can become more **socially embedded** without losing conceptual clarity

Next steps: Interdisciplinary workshops with strategic stakeholders to co-construct policy recommendations for addressing barriers

With thanks to colleagues who contributed to the study, including Kerry Waylen, Esther Banks, and local community groups that helped with the survey and the workshop, enabled by funding from Scottish Government Strategic Research Programme 2022-27, project AIM NbS (JHI-D2-2)

Thank you!

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