Barkley, Lucy ORCID: 0000-0003-1787-8998, Chivers, Charlotte-Anne ORCID: 0000-0002-5171-2484, Short, Christopher J ORCID: 0000-0003-0429-1143 and Bloxham, Hannah (2024) Principles for delivering transformative co-design methodologies with multiple stakeholders for achieving nature recovery in England. Area. e12963. doi:10.1111/area.12963 (In Press)

ARTICLE

Principles for delivering transformative co-design methodologies with multiple stakeholders for achieving nature recovery in England

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Funding information
Defra - Environmental Land Management Test and Trial no. 373; and Southern Water

Abstract

Achieving successful multi-stakeholder collaboration for sustainable outcomes is complex. This paper provides key principles for future co-design projects aimed at fostering an inclusive approach to research. These have been developed based on a novel methodology that co-designed the essential components of a long-term, collaborative agreement for a nature recovery scheme in England. Using an assortment of iterative, deliberative participatory methods, this research engaged a wide variety of stakeholders to produce a template agreement for an agri-environmental policy. We demonstrate that a flexible, highly reflective approach resulted in positive engagement with previously marginalised stakeholders. The approach also successfully navigated the unequal power dynamics seen both within and between groups. Finally, multiple feedback loops allowed participants to continually build on previous interactions as they developed and reviewed the agreement. By drawing out the complexities of the co-design process, this paper explains how co-design efforts can produce potentially transformative outputs. We hope that the principles introduced here offer a useful starting point for those planning to undertake multi-stakeholder co-design.

KEYWORDS

co-design, England, inclusion, land management, multi-stakeholder, participatory research

1 | INTRODUCTION

In the broad field of sustainability science, research that involves societal actors in the co-creation of knowledge has great potential for meaningful impact (Kok et al., 2023). Including such actors in policy design research should lead to democratic and legitimate outcomes, ideally effective in catalysing societal transformations to meet sustainability targets (Lang et al., 2012). However, this is only likely to occur if sufficiently strong 'coalitions of support' are built (Pascual et al., 2022). These are inclusive groups with a shared political will, working together towards a particular goal. Incorporating local, often marginalised knowledge can result in a plurivocal and pluriversal approach that challenges hegemonic national governance frameworks (Bennett et al., 2019; Yates et al., 2023). Against this conceptual and political

context, this research examined how practices of inclusion and co-design provided insights for policymakers developing a scheme for achieving nature recovery in England.

This paper provides a methodologically robust example of successful co-design, which resulted in outputs deemed equitable and legitimate by all participants. Here, co-design made space for diverse and sometimes conflicting perspectives—perspectives that until now have been largely marginalised in UK land management policy development. In paying close attention to the specificities of participants' circumstances, the research sought to better understand their needs and capacities to act—including the enablers and barriers to the formation of coalitions for nature recovery—and to co-produce outputs considered to be fully representative. Indeed, Pascual et al. (2022) suggest that inclusive and pluralist research approaches are essential for navigating the asymmetric power relations that persist in environmental governance.

This paper asks: What were the practices and methodologies that were successful in bringing together a diverse range of stakeholders within the land management sector to discuss a complex topic (long-term agreements)? What moments and issues were most challenging? By answering these questions with reference to an empirical case study, we introduce principles for other researchers and practitioners using multi-stakeholder co-design approaches. An in-depth exploration of our methodology contributes to addressing the clear knowledge gaps that exist about how co-design may be better understood and implemented by researchers, and also answers calls as to how groups resolve or overcome potential issues (Macken-Walsh, 2019; Naughton, 2014).

After a brief review of existing co-design research, the paper presents the empirical study. We outline the project's context and methodology, including how data were collected and analysed, and explain how the final outputs were achieved. Finally, we provide key principles for enacting inclusive co-design with multiple stakeholders.

2 | CO-DESIGN CONCEPTS AND METHODOLOGIES

While open and participatory approaches—those involving people directly impacted by research outputs—are championed in the literature, these are still largely abstract in their conceptualisation (Berthet et al., 2018). We understand co-design as going a step further than a participatory approach, to not just involve stakeholders in the research process but giving them the status of a collaborator and decisionmaker equal to those in the research team. Such research seeks to rebalance the relationship between researchers and local actors (Berthet et al., 2016), positioning the latter as holders of powerful knowledge. However, Wyborn et al. (2019) note that if co-design is used to produce knowledge with direct utility to policymakers, special care should be taken that this will not simply reinforce existing unequal power relationships. Researchers must therefore consider whose knowledge is privileged, and who has the right to speak and to influence policy development (Holt et al., 2019) when planning methodologies. Additionally, researchers should strive for outputs that are transformational in how they position the knowledge and experiences of those who have been previously marginalised in and by policy.

While England's post-Brexit agri-environmental policy recognises more 'bottom-up' governance that engages 'harder to reach' stakeholders is needed, literature shows that farmers are rarely involved in land management policy development (Hurley et al., 2022; Little et al., 2023; Prager & Nagel, 2008). However, co-design is increasingly becoming viewed as a useful and appropriate approach in this policy arena (see, for example, Urquhart et al., 2023). Research that engages specifically with land managers' previously marginalised voices can therefore be potentially disruptive of normative policy agendas (Hope et al., 2021). Furthermore, inclusive approaches can build social capital, engagement and trust between stakeholders and government, increasing the quality and efficacy of policy and initiating positive transformative change in practice (Blomkamp, 2018; Holt et al., 2019).

3 | RESEARCH CONTEXT AND METHODOLOGY

The empirical basis for this paper centres on a Department for Environment, Food and Rural Affairs (Defra)-funded test and trial (T&T), which employed co-design to develop a template long-term agreement (LTA) for the Landscape Recovery (LR) scheme (see Barkley et al., 2023; Bloxham et al., 2023). LR seeks to deliver large-scale nature recovery with multiple land managers, over a timeframe long enough to secure lasting environmental benefits (Defra, 2023a). The landscape-scale approach of the scheme necessitates the use of multi-party LTAs, with a minimum term of 20 years but the goal of achieving perpetuity (Defra, 2023b). Such agreements were anticipated to be complex for multiple reasons,

including their collaborative nature, the use of blended public and private money for their financing, and the significant financial and legal protections required by both land managers and funders.

The template LTA produced needed to be acceptable to multiple stakeholders in a lowland, agriculturally productive rural context. Co-design is posited to be especially suitable for research of this kind, which seeks to better account for the diversity within agricultural production contexts (Berthet et al., 2018). Several types of stakeholder (see Table 1) were therefore brought together to consider the project's context and aims, and to iteratively co-design the template. As far as possible, we tried to include voices and experiences that are often marginalised in policy development. Thus, alongside regional and national organisations and non-farming stakeholders, a variety of local land managers were identified and invited to become active participants in the T&T. These included both landowners and tenants, and large- and small-scale farmers, some of whom were members of farmer cluster groups. Peer groups such as farmer clusters have been shown to be good sites for social and experiential learning (Goulet, 2013), and working with land managers with already-established relationships helped facilitate discussions about potentially sensitive subjects, such as the financial aspects of LTAs. A series of eight workshops, group interviews with six participants, and six further individual interviews took place with these participants over the course of the co-design project.

Following Ingram et al.'s (2020) lead, we consider *all* project partners to be stakeholders in the co-design process, but we distinguish ourselves (as a research team) from other participants in order to clarify how and by whom aspects of the co-design process were enacted. We also acknowledge our own positionalities as university researchers, who in the context of agri-environmental research may be less trusted by the farming community than other practitioners (see Rust et al., 2022). Throughout the T&T, we recognised the need to negotiate the differing sociocultural and institutional contexts that the study traversed, as well as the specific needs and perspectives of individual stakeholders. Our methods provide an example of problem-solving and best practice for other co-design practitioners.

3.1 | Project methodology

Preliminary contextual research identified underlying factors that might condition the co-production process (Ingram et al., 2020). A Rapid Evidence Assessment (REA) (Barkley et al., 2022), carried out prior to the co-design process, provided an in-depth assessment of existing research. Additional contextual material and supporting data were gathered through networking and grey literature. Exploratory meetings with stakeholders tested our approach and helped to ensure sustained, meaningful stakeholder participation (Prokopy et al., 2017).

The project design at inception was based on an iterative approach with multiple 'feedback loops' between researchers and participants to ensure ongoing learnings were incorporated into the following stages (Sumberg et al., 2013). Participants were also given informal opportunities to engage and contribute outside the formal engagement sessions. Although the

TABLE 1 Key T&T participant professions.

Stakeholder profession/organisation	Number of participants
Farmer[a]	13
Government agency	5
Heritage organisation	3
Charitable organisation (nature based)	2
Farm or environmental adviser	2
Local Nature Partnership	2
Water company	2
Wildlife Trust	2
Engineering company	1
Environmental investment company	1
National park	1
Property and conservation law	1

[a]Farmers were predominantly arable farmers, and comprised a mix of landowners and/or tenants.
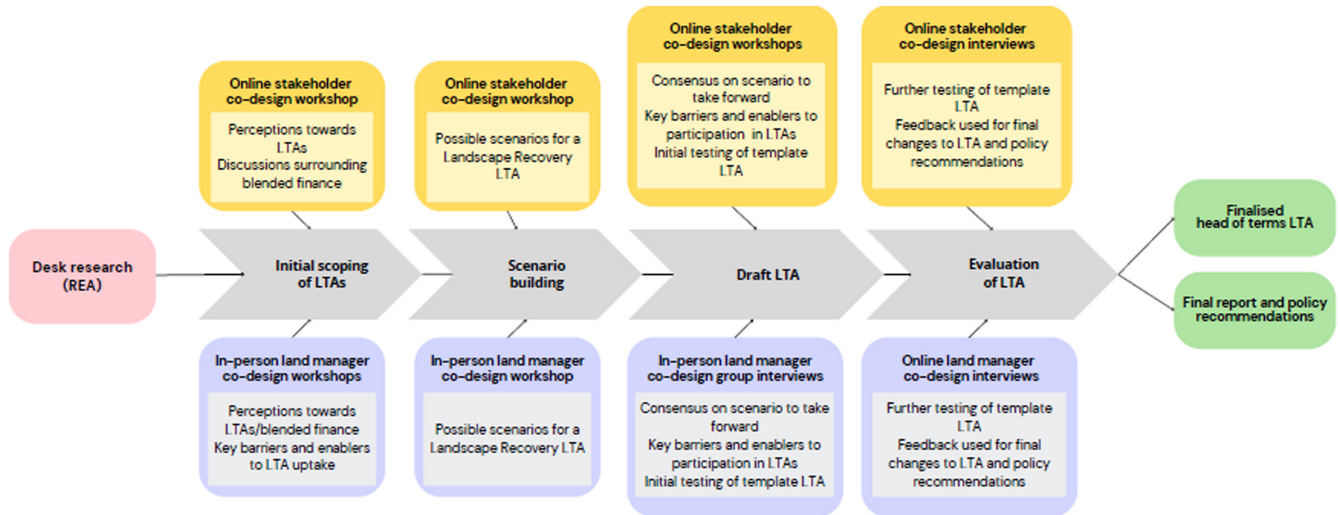
FIGURE 1 The co-design process used to develop a template long-term agreement (LTA) with multiple stakeholders aimed at nature recovery. It shows the multiple occasions on which land managers and other stakeholders were consulted and how their input led to the final research outputs.

project followed its planned phases, it was adaptive in the workshop and interview timings and the manner of participatory approaches. As the dynamics of each group and session varied, the team was flexible in their facilitation to provide space for the effective co-production of knowledge. As Figure 1 shows, participants were continually involved in identifying and finding potential solutions to problems, with the 'results' (i.e., learnings) from each phase being taken forward.

Figure 1 also shows that parallel workshops were offered to farmers and non-farming stakeholders. Each of these pairs of workshops covered the same topics, although with discussions and participatory methodologies tailored to each group and its setting. This allowed the research team to triangulate, compare and synthesise the data generated by the farming and non-farming groups at every stage. The choice to separate the groups was deliberate, and made for two reasons. Firstly, we wanted to provide face-to-face workshops that farmers considered to be 'safe spaces', where they were able to contribute without feeling 'drowned out' by other voices (Kok et al., 2023). Secondly, given the broad range and geographic spread of the non-farming stakeholders, in-person workshops were not possible with this group, so sessions were held online.

3.2 | Data collection and analysis

A total of eight workshops, group interviews with six participants, and six final evaluation interviews were carried out. Between each stage of the project, participants were provided with email updates and summary reports, and encouraged to give feedback on these. Participants who were unable to attend any session were given the opportunity to contribute online or via email correspondence if they wished to do so.

Before each workshop and interview, the research team drew up a protocol covering the main topics to be discussed and prepared any supporting materials. Participatory methods were used alongside discussion to help elicit knowledge and ensure that every participant felt able to contribute to the sessions in a way that best suited them. In the online stakeholder workshops (average attendance = 9), Miro boards were used to capture participants' ideas on key issues, enabling those less comfortable with plenary discussion to share their thoughts. As Ingram et al. (2020) note, it is not enough to have stakeholders attend sessions, it is their *contributions* that are needed.

The in-person farmer workshops were held with a smaller number of participants (average attendance = 6). Logistical matters were important in these instances: choosing a convenient local venue recognised as 'neutral' ground by participants; seating everyone around a table where they were positioned as equals; and providing refreshments with moments when participants could talk informally amongst themselves. The relationships established in these workshops were, therefore, horizontal rather than hierarchical (Wyborn et al., 2019).

Following Wernli (2021), the research team acknowledged that participants' positionalities could never be fully known, yet we sought to understand the motivations and needs of others as far as possible. The successful creation of

inclusive spaces meant all attendees seemed comfortable and willing to engage in discussion and participatory exercises such as brainstorming and ranking/prioritisation activities. The research team had a specific skillset for undertaking the co-design process, including experience and expertise in facilitating workshops and interviews; rapport building and networking; translating technical information into accessible language; and synthesising complex and multiple data to produce robust and viable outputs. These skills are likely crucial for successful co-design in any context. In particular, since the template LTA is a complex legal document, it was vital to find ways to make its co-production accessible for participants. This included using simple language rather than legalese; defining key terms; and providing 'what if?' scenarios to work through rather than abstract conceptualisations.

Although we sought to make workshops into safe spaces for discussion, there were times when participants with clear agendas were outspoken. Displays of power and hegemony were not dismissed but instead acknowledged by the research team, with some power imbalances productively harnessed to support co-design (Hendriks, 2009). For example, one of the research team was an 'expert' land agent and therefore able to provide guidance on particular legalities of LTAs. In these instances, power shifted from those with more local knowledge to those with technical knowledge. These occurrences represented a methodological tension—between ensuring that outputs integrated all participant viewpoints whilst delivering a legally functional template LTA—and were navigated by facilitators by ensuring that all participants were subsequently able to respond to the land agent's suggestions. Probing questions from facilitators helped marginalised stakeholders re-engage, and those who still felt unable to respond at the time were given opportunities to contribute separately.

In some cases, discussions were uncomfortable, unsettled epistemologies or raised issues that were hard to overcome. However, these moments were themselves generative, as they compelled the team to seek solutions outside the normative frameworks used in agri-environmental governance and policy. Additionally, they elucidated potential areas of tension within the finalised LTA template, indicating where further research may be required. These moments also helped us to determine to what extent the project and its co-designed outputs represented a democratic approach to policy development.

Full ethical approval was gained from the University of Gloucestershire's ethics committee and informed consent was sought at the beginning of all research encounters. Particular attention was given to ensuring that participants did not feel coerced into participating.

4 | RESULTS

The combination of online and in-person sessions proved successful in bringing together a diverse range of stakeholders. The research spaces created and the methodologies used were inclusive and effective at achieving ongoing, high-quality participant input. They also helped secure the continued engagement of participants as they became part of (informal) coalitions to problem-solve and generate ideas. Participants were particularly pleased with the variety of perspectives that were represented:

> What was really good is we had ... environmentalists and ... people who are very agriculturally-focused. So it was a good cohort.
>
> (Farmer)

> The kind of group, the workshop dynamic that we had and the people you brought into that ... it was a really lively and engaged group.
>
> (Stakeholder)

Participants' views were used to structure and develop the key project output—the co-designed template LTA (see Bloxham et al., 2023). In some areas, the inclusion of clauses similar to those used in existing agri-environment schemes meant gaining consensus was straightforward. However, where elements of the LTA were more contentious, discussions needed to leverage and creatively combine differences (Macken-Walsh, 2019). Consequently, the final LTA encompasses the favoured approaches of participants in some parts, and in others, agreed-upon compromises that balance what is ideal for stakeholders and what is legally required by the LTA. It is, therefore, a negotiated document, representing the culmination of a 15-month co-design process in which a multiplicity of sociocultural, political and economic factors were considered.

By including participants' own words in the template LTA and project reports as much as possible (see, for example, Barkley et al., 2023; Bloxham et al., 2023), we demonstrate that their views are generative of crucial knowledge, and embed context and the particularities of individual experiences and epistemologies into the reports (Naughton, 2014). Here, the research team acted as 'knowledge brokers' (Macken-Walsh, 2019), synthesising the resulting co-produced knowledge to develop the template LTA before seeking feedback from participants once more. As one stakeholder commented, the outputs 'balance all of those views' rather than presenting only 'one side of the equation', therefore reaffirming the inclusive nature of the research. Ensuring that the project was as thorough as possible was, inevitably, time consuming. The research team dedicated 240 full working days to the project, including planning, conducting interviews and workshops, and writing summary reports for participants and the funding government body.

Information about where and how participants shaped the final agreement is detailed alongside each LTA clause. This increases the transparency of the decision-making process and demonstrates how participation shaped the final iteration of the LTA, as well as the report's conclusions and policy recommendations. Nevertheless, the research process and its outputs did not seek to fully appease either the funding body or any participating stakeholders, as their differing needs cannot be navigated without negotiation and compromise. As the T&T is one contribution towards the development of wider policy, its findings should be combined with those of other projects to identify the most highly-favoured approach(es).

Ingram et al. (2020) note that it can be hard to evaluate 'success' or measure whether 'real' co-design has occurred. The participatory techniques, approaches and project timescales used here are, however, deemed successful. The final phase of this research comprised evaluation interviews, giving participants an opportunity to suggest final revisions to the outputs before their submission, as well as providing feedback on the process itself. Macken-Walsh (2019) asserts that co-design is successful if all views have been heard and represented in the final outputs. During this final phase, interviewees stated 'you've covered all the points that were raised' and 'found a really good narrative that brings all of that together'. All interviewees were extremely positive about their participation, with some expressing 'a sense of achievement' (farmer) and others finding it 'very helpful' (stakeholder). Participants expressed continued enthusiasm and engagement throughout the project and there was broad consensus that the resulting template LTA reflected their views.

5 | DISCUSSION AND RECOMMENDATIONS

This paper has provided a methodologically robust example of co-designed research that considers how marginalised voices might be better included and heard in multi-stakeholder settings to avoid hegemonic outcomes. Two broad areas of challenge within multi-actor research have been identified in existing research: mediating the dynamics of different groups; and representing different ideas and interests adequately (Macken-Walsh, 2019). These align with our findings, and we have identified the main areas of tension within the project, exploring how these were addressed and, wherever possible, resolved.

Below, we introduce several key recommendations for successful co-design. These are aimed at all co-design facilitators, including researchers, policy-makers, NGOs, industry and other actors who adopt deliberative processes. While our specific approach may require adaptation to suit other contexts, the underlying principle—of regular, meaningful interactions characterised by open negotiations with clear objectives—is replicable for any co-design project. Alongside these recommendations is a need to consider the respective contexts, stakeholders, power dynamics, and wider political landscape that co-design processes are embedded within.

5.1 | Planning

5.1.1 | Plan in advance but be flexible

Adequate background research should identify factors that might affect the co-design process. Literature reviews can provide context alongside connecting with stakeholders, even before a project's inception. An outline of the overall project process should be developed alongside clear objectives for each stakeholder engagement. However, both should be viewed as guides rather than fixed schedules. For example, a planned participatory exercise may require more or less time than expected to generate a sufficient quantity and quality of co-produced knowledge.

Consequently, researchers should be flexible and adaptive, responsive to the unpredictability of co-design, and include reflection time.

5.1.2 | Provide project direction without 'leading' the co-design process

Researchers and facilitators must strike a balance between the overall management and coherence of the project without overly leading the process. Participants should play a significant role in shaping and 'owning' the process and its outcomes (Holt et al., 2019). The presence of experienced facilitators is vital for guiding discussions to enable natural conversations. In our workshops, crucial data were generated when participants were encouraged to discuss topics amongst themselves, bouncing ideas, issues and potential solutions off each other in an open, comfortable setting.

5.2 | Facilitation

5.2.1 | Create safe spaces for discussion

This requires an examination of the politics of spaces, as this will affect the knowledge that is co-produced within them (McCrory et al., 2020). Creating settings deemed to be 'neutral' by participants is key. Consideration should be given to the best approach to stakeholder engagement, linking both the space and activities to participants' needs. When managing heterogeneous sets of stakeholders, more than one approach might be needed. Separating participants into smaller groups may increase inclusivity, leading to successful outcomes. We found that using both online and in-person encounters increased inclusivity.

5.2.2 | Make space for diverse (and sometimes conflicting) perspectives

Central to inclusivity is that participants feel free to express their opinions despite power imbalances. Participatory methodologies can foster contributions from all stakeholders, particularly amongst those less comfortable with plenary discussions. Creative and visual methods might allow those who struggle with solely verbal and written forms of communication to contribute. Where differences of opinion lead to conflict, facilitators should take an active management role in allowing (sometimes uncomfortable) negotiations to occur and ensuring that agreed objectives are reached.

5.3 | Fostering deliberation

5.3.1 | Maintain stakeholder engagement throughout

Some participant drop-off may be expected in any project, but in co-design it is important to retain a core group of participants throughout. Understanding the benefits stakeholders hope to receive from participating and using these as a key objective will encourage continued involvement (Reed, 2008). Where participants feel a sense of ownership over the co-design process, they will be more motivated to participate and more invested in any outcomes (Macken-Walsh, 2019). The consistency of stakeholder engagement in this research can be attributed both to the relevance of the issue, and to the ownership they felt; repeated and in-depth engagements were encouraged by the former aspect and contributed to the latter. The co-designed LTA belongs, therefore, as much to the participants as to the research team.

5.4 | Legitimacy

5.4.1 | Ensure outcomes are representative, fair and equitable

Value should be placed on all forms of knowledge: experiential and local alongside scientific and technical knowledge (Armitage et al., 2011). While researchers are responsible for synthesising and interpreting the data generated, the

management of gaps and differences within co-produced knowledge is crucial in producing fair and equitable outputs; thus, the whole process must be transparent. How this is achieved will be project dependent, but in the case presented here, information acknowledging where and how participant input shaped the template LTA is detailed within the final document (Barkley et al., 2023).

5.5 | Creating an enabling environment for multi-stakeholder co-design

Several systemic transformations are needed to create an enabling environment for multi-stakeholder co-design using the principles introduced here. The impetus is therefore not solely on co-design practitioners, but also shifts to broader scales. At a national policy-level, governance needs to be more receptive to policy instruments that might be (partly) designed by non-traditional and local actors, via co-design processes. Funding bodies must appreciate the significant investment required to undertake viable co-design projects, including the time required from facilitators throughout a project (Urquhart et al., 2023). However, organisational and temporal requirements may still constrain research (Felt et al., 2012). Ongoing efforts should better engage with marginalised groups to realise the transformative potential of such approaches.

5.6 | Study limitations

There were inevitable limitations to this research, including its 15-month timeframe. With further time and stakeholder input, more satisfactory LTA clauses might have been co-developed. However, the final template will be co-designed further when used within the LR scheme; each instance of its use would result in a 'bespoke' LTA, additionally co-designed by those adopting it. Given the dynamic nature of the policy environment we would, ideally, revisit our recommendations and template LTA when new contextual information emerges, thus further achieving a democratic approach to policy development. Here, we agree with Dogliotti et al. (2014), who suggest that the outcome-focused nature of co-design requires a 'work-in-progress' attitude.

6 | CONCLUSIONS

This paper has introduced several evidence-based principles for deliberative co-design processes, developed to help practitioners develop legitimate and equitable outcomes. The principles are based on a co-design process that was deemed successful by the research team, funding body and—most importantly—by participants, who were highly satisfied with the project and the co-produced outcomes. The paper confirms the importance of contextual factors and facilitation for co-produced knowledge (see, for example, Coutts et al., 2017) and adds to the scholarship on co-design by detailing the project methodology and inclusive approach that was taken.

Empirically, the case study illustrates the complex nature of co-design and the need for consistent, but adaptive, stakeholder involvement. Multiple feedback loops positioned the research team as learners just as much as—if not more than—participants, because co-design is inherently founded on reciprocal and horizontal relationships of learning and teaching. By strategically grouping participants and providing research settings designed to suit their needs, the project successfully attracted and maintained stakeholder interest. Moreover, the safe spaces fostered participation, generating both quantity and quality of co-produced knowledge. Participants reported their involvement was valuable, especially in giving them an opportunity to reflect upon and help shape a rapidly changing rural policy landscape. Future efforts could examine the extent to which co-designed outputs of this kind contribute to shifts in both policy and practice. In particular, the co-design process gave those not normally able to contribute to land management policy a voice in the future of agri-environmental schemes in England.

We also indicate a need for wider systemic change, including the transformation of governance towards supporting co-designed outputs for policies with mainstream acceptance and legitimacy. We conclude that co-design provides clear opportunities for developing innovative and inclusive solutions to complex challenges, particularly within a multi-stakeholder context. Finally, co-design should not become a rhetorical exercise: it must be genuinely meaningful and impactful for all.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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