
Natural Climate Solutions Alliance

Proposed platform to support projects of environmental regeneration and climate resilience in the UK.

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Introduction

This report aims to outline a plan of focus and development for a web platform that can support first-time and continuing ecological entrepreneurs in generating Natural Climate Solutions (NCS) around the United Kingdom. The Natural Climate Solutions Alliance is approaching the problem of climate resilience and environment regeneration from a practical and applied angle of problem-solving.

This platform is intended to fill a gap in the networking space, where no current hub exists for such solutions, and no platform currently has the full range of required accessible information and guidance on the genesis process of such projects, their locational viability, risk considerations, and effectiveness.

A new platform, run out of Friends of the Earth, would be of great benefit to broadening the audience for NCS, as well as making the most out of current networks. A collaborative effort that utilises existing content and platforms through hyperlinking, as well as academic institutions and DEFRA, is what is required for meaningful and facilitated change across the UK's landscape. Directing action at community levels requires both distributed and centralised support mechanisms, to ensure that certain standards are maintained in the effort to radically upgrade the ecological systems of the country.

The desired outcome of this new platform is that there will be a greater number of projects realised that would not otherwise due to isolation of entrepreneurs informationally and eco-socially, lack of awareness from investors and funders, and participant streams.

Climate change and the need for NCS

Over the past 30 years the attribution that climate change is caused by human activities of burning fossil fuels, which releases greenhouse gases into the atmosphere causing warming has increased significantly. This is exemplified from the International Panel on Climate Change (IPCC) reports. In 2001 the IPCC stated that ‘Most of the warming of the past 50 years is likely (>66%) to be attributable to human activities.’¹ whereas by 2007 the IPCC stated that ‘Warming is unequivocal, and most of the warming of the past 50 years is very likely (90%) due to increases in greenhouse gases’.² Finally in the most recent IPCC Assessment Report in 2014 they concluded it is ‘extremely unlikely (<5%) that the global pattern of warming during the past half-century can be explained by variations generated within the climate system alone’³

Thus the level of certainty in the language used about the causal link between climate change and anthropogenic activities has risen considerably and the reason for this can be seen statistically (the change from >66% to >95%) and this is grounded in the understanding that the output from the climate models is becoming more reliable with fewer uncertainties. This has been due to the development of Multi-model Ensembles which explore the uncertainties that occur in model simulations as a result of internal variability, boundary conditions, parameterisations for values of effects and structural uncertainty from the different model formulations (Pachauri et al. IPCC, 2014, 757). Thus, discrepancies with how different models handle the data has been reduced, which has resulted in more models producing simulations which are producing outputs for 95% confidence in the attribution of climate change to anthropogenic forcing. Therefore, throughout the scientific community there is now the understanding of attributing human activities to climate change and this has implications for how we manage our environment.

The impacts of climate change are being seen globally, across the natural and human systems. According to the IPCC, the global surface temperature change is projected to be 1.5 degrees Celsius for the end of the 21st Century, and this is only if we follow a Representative Concentration Pathway of 4.5 (RCP4.5) where emissions peak around 2040.

¹ Watson et al. (2001), ‘Third Assessment Report’, IPCC

² Pachauri et al. (2007), ‘AR4 Climate Change Synthesis Report’, IPCC https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf

³ Pachauri et al. (2014) ‘AR5 Climate Change Synthesis Report’ IPCC https://res.cloudinary.com/bocs/raw/upload/v1554204949/IPCC_AR5_SYR_Final_qnzw1v.pdf

The increase in temperature will very likely lead to increased frequency and intensity of extreme events such as heat waves and storms, both of which pose a threat to life if people aren't sufficiently supported and to the economy, due to disruption caused to infrastructure and critical services (ibid, p60, p65, p69). Furthermore, climate change will lead to the reduced biodiversity and functioning of ecosystems, severely damaging the natural system and affecting society's ability to function, as resources and ecosystem services will be reduced which will threaten things such as food security (ibid, p65).

These impacts will be amplified by positive feedback effects within the Earth's system, leading to further warming (ibid, p62). Therefore, the IPCC recommends that mitigation strategies are put into place in order limit the damaging effects of future climate change and this will involve decreasing emissions and enhancing sinks of greenhouse gases (ibid, p76).

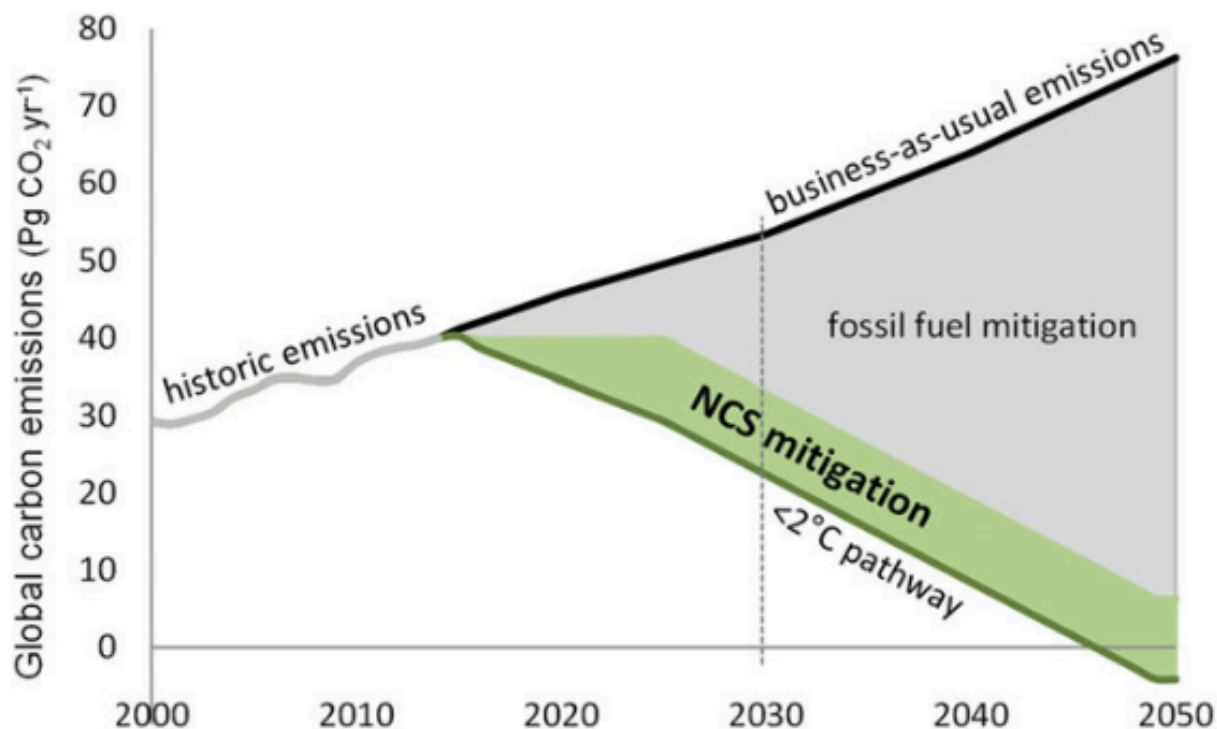
In terms of creating these sinks of greenhouse gases it has been recognised by the international community that this can be achieved through Natural Climate Solutions. Outside of decarbonisation of the economy, the IPCC emphasises that 'The most cost-effective mitigation option in forestry are afforestation, sustainable forest management and reducing deforestation' (ibid, p102). Most recently, the international community's enthusiasm for Natural Climate Solutions was highlighted at the World Economic Forum in Davos in 2019. Speakers such as Sir David Attenborough detailed how 'The Holocene has ended' as we enter the 'Anthropocene' which is a world where humans dominate the environmental systems and push them into a region of instability.⁴ This then prompted the development of the 1 trillion trees initiative, which plans to undertake large scale reforestation.

Multiple nations are getting involved in this project including the United States. Also, all mainstream political parties in the UK have promised to begin afforestation projects, including the Labour and Conservative party, who have pledged every year to plant 100m and 30m trees respectively.⁵ But importantly the IPCC recognised in their report that mitigation measures should 'intersect with other social goals' (Pachauri et al., 2014, p102). Thus, it is within this wider context of increasing carbon drawdown along with increasing community wellbeing that Friends of the Earth require this new website platform for Natural Climate Solutions. There is a consensus among the general public that human activities of burning fossil fuels are causing climate change, which will have potentially irreversible impacts and thus the responsibility for solving these problems returns to humans. The practice of implementing Natural Climate Solutions will be key in this fight against climate change because carbon sinks are crucial for taking carbon out of the atmosphere.

⁴ Parker, C. '8 top stories from Davos 2019'. World Economic Forum. 2019 [Cited 29/02/20]. [Internet]. Available from: <https://www.weforum.org/agenda/2019/01/top-stories-from-davos-2019/>

⁵ Morris, C. 'General election 2019: How many trees can you plant?'. BBC News. 2019 [Cited 29/02/20]. [Internet]. Available from: <https://www.bbc.co.uk/news/50591261>

Therefore, in understanding the climate change problem and some of the key solutions, the development of this new platform is required to enable the connection of communities to join or start a project with landholders to increase the scale of carbon sinks. This will help make a significant difference to the carbon budget, while at the same time providing projects which communities can get involved in, helping to strengthen their bonds as they work together to create a greener world.



[(Griscom et al., 2017)⁶ Contribution of natural climate solutions (NCS) to stabilising warming to below 2 °C. Historical anthropogenic CO₂ emissions before 2016 (gray line) prelude either business-as-usual (representative concentration pathway, scenario 8.5, black line) or a net emissions trajectory needed for >66% likelihood of holding global warming to below 2 °C (green line). The green area shows cost effective NCS (aggregate of 20 pathways), offering 37% of needed mitigation through 2030, 29% at year 2030, 20% through 2050, and 9% through 2100. This scenario assumes that NCS are ramped up linearly over the next decade to <2 °C levels indicated in Fig. 1 and held at that level (=10.4 PgCO₂ y⁻¹, not including other greenhouse gases). It is assumed that fossil fuel emissions are held level over the next decade then decline linearly to reach 7% of current levels by 2050.]

⁶ Griscom, B.W. Adams J, Ellis PW, Houghton, RA, Lomax, G. Miteva DA, Schlesinger, WH. et al. (2017) 'Natural Climate Solutions'. doi:10.1073/pnas.1710465114.

Extant platforms and services

There are a number of platforms currently in operation that fulfil some of the intended functions that this NCS hub seeks to include:

Future Forest Network has generated a useful platform for locating planting projects, as well as crowdfunding projects into existence. In considering the role an NCS hub could play that builds on what FFN offers, more detail on the specific geographical details, as well as detailed profiles of different projects and how they will specifically use that funding.

A number of different NCS-specific websites are already up and running, with general information on what is meant by NCS, and how such solutions can build resilience to climate change, and help bring about a more sustainable future. However, not only is this new platform a hub to connect existing disparate networks, but will also be far more information and process rich.

Examples of such networks include:

EntrepreneursNet <https://entrepreneursnet.net/#!form/StartupClarityProject>

Integrating pro bono and socially responsible business plans and programs could empower new connections to the private sector. It could also, importantly, generate sustainability aspects to start-ups in community settings that may be well placed to provide long-term funding streams to projects in context.

Social Enterprise UK <https://directory.socialenterprise.org.uk/seuk-members/>

Algorithmic automated suggestions for organisations to network with, or as a means to match organisations themselves with funding, could be implemented to increase automation and reduce maintenance and service costs. Paid subscription by corporate actors is also an option for tying them into supporting various projects on a long-term basis. Rates can be set as a negligible expense.

Scottish Carbon Capture and Storage <https://www.sccs.org.uk/expertise/global-ccs-map>

Information and expertise from the UK's largest Carbon Capture and Sequestration (CCS) group may be invaluable for implementing Natural Climate Solutions with smart new approaches. Integrating technological features for ecological monitoring and capture rates may be an area for this platform to engage with for advanced data streams.

Compatible Types of Natural Climate Solutions

Utilising Green Belts

Natural Carbon Solutions has the potential to increase the amount of woodland by proposing to adapt the use of Green belts. Konijnendijk et al (2010) propose that the UK could follow the path of Finland and Sweden in designating National Urban Parks.⁷ These parks have woodland as the core element' but also take into consideration the cultural values with which the plots of land are attributed (Konijnendijk et al, 2010, p252). This cultural element needs to be addressed and this involves making sure there is community engagement and community access to these areas. Having a tree planting venture on the UK Green belts would be an excellent way of combining both the ecological and community goals of the project. By getting local people to connect with the land and other members of their community by creating a local woodland together, this will then support a variety of organisms, while providing a space for people to enjoy walking, cycling and other outdoor activities.

This scheme would have the added benefit of it being able to reach out to the urban community, who often struggle to access the more rural locations and as a result are less connected to community ecological projects because they are not normally exposed to these types of projects. If it is not possible for Konijnendijk's proposal for a reform of Green belt land use to take place, projects like this could work equally well on other community areas and public lands. Thus, by creating a National Urban Parks on Green belt land, or by increasing the number of community lands cultivated into woodland, it will help to increase participation for communities to get involved in developing Natural Carbon Solutions, whilst also helping to integrate the urban community into more natural environments. Furthermore, by engaging this sector who have likely not been part of projects like this before, the scope of the FoE initiative will be expanded.

Moreover, the concept of a National Urban Park also plays to the ideas proposed by Elinor Ostrom (a Nobel Memorial Prize winner in Economic Sciences) that when people share and have a stake in the resources of the land, they have the capacity to self-organise it cooperatively thus achieving sustainability. Self-organisation is at the heart of the FoE Natural Climate Solutions community project ideas and thus delivering it in the form of developing National Urban Parks or smaller scale community parks and gardens, is an efficient way to accomplish both the goals for increasing carbon draw-down and increasing community connectivity.

⁷ Konijnendijk, C.C. (2010). The role of forestry in the development and reform of green belts Taylor & Francis Planning Practice and Research 25(2): 239-252

Local Afforestation

Aside from investment in the Green Belt as an area of opportunity, ecosystem services development across the UK can be achieved by building up ecology that can respond to environmental damage. Taking advantage of under-utilised land, and areas that could be rewilded, at community scales is a crucial aspect of NCS. By empowering communities to take action and transform the landscape and ecology around them, new ecosystem services can be generated and the UK carbon stock increased.

Increasing forestry coverage is potentially one of the biggest advantages to this. However, not all tree stocks are equally good. Researchers from the USA and China synthesized 86 experimental studies to quantify the differences in ecosystem carbon (C) pools between plantations and their corresponding adjacent primary and secondary forests (natural forests)⁸.

- Total ecosystem C stock in plant and soil pools was 284 Mg C ha⁻¹ in natural forests and decreased by 28% in plantations.
- In comparison with natural forests, plantations decreased aboveground net primary production, litterfall, and rate of soil respiration by 11, 34, and 32%, respectively.
- Fine root biomass, soil C concentration, and soil microbial C concentration decreased respectively by 66, 32, and 29% in plantations relative to natural forests.
- Soil available N, P and K concentrations were lower by 22, 20 and 26%, respectively, in plantations than in natural forests.

The researchers did admit that little detail for these disparities can be garnered from individual case studies. To understand the difference in ecosystem C stock, it is necessary to examine the differences in ecosystem C fluxes and relevant parameters, and soil nutrient availabilities. In any case however, these results demonstrate scalar challenges of effectively generating NCS.

Multivariable ecosystem services engineering

Long-term investment, as well as maintenance of old forests, protection and rejuvenation of peat bogs, and use of new methods such as growing massive amounts of seagrass at the coasts, will be important for overall system effectiveness. Even so, attention to the fact that natural solutions do not always function as simply as we expect should be kept in mind. For instance, large-growth seagrass farms may have to be well-maintained to actually reduce biodiversity, as this can counter its effectiveness as a carbon sink. See: <https://phys.org/news/2017-08-biodiversity-negates-carbon-storage-seagrasses.html> Information can be provided on possible options for generating such initiatives out of nothing where they would be appropriate, and getting project-starters in contact with relevant experts.

⁸ Liao et al. (2010) Ecosystem Carbon Stock Influenced by Plantation Practice: Implications for Planting Forests as a Measure of Climate Change Mitigation, PLoS ONE 5(5):e10867

User Tailoring

Project Managers:

The platform seeks to support those entrepreneurs and community actors in a variety of contexts who require information, networking to participants, and financial backing. Potential project starters will require information that is formatted at different levels of detail and accessibility.

Farmers:

The average age of a UK farmer is 59. Increasing accessibility of farming for young people is important for increasing risk-taking in the industry and encouraging entrepreneurship and new methods of working with nature.

Farmers must, more generally, be incentivised to allow partial reclamation of land they would otherwise use for agriculture. Farmer-specific tailoring and networking is needed to support each-other and build collaborative sequestration projects. Farmers often know their own landscapes best, and can utilise transferable skills. Making this clear is a priority: perhaps connections to farmers associations could be made.

<http://www.farmerslink.org.uk/farming-organisations/>

A change in mindset, and influencing farmers to think differently about the future of UK land and environment, may also be required and enable the most effective widespread encouragement of project generation. It is important to highlight the role of land-use and landed-property in limiting the UK's ability to generate sophisticated Natural Climate Solutions. This should be done with appropriate sensitivity, with the inclusion of transition plans and financial resources as support for farmers who are insecure or worried about their own livelihoods, as well as a threat to what they perceive as an agricultural way of life in the UK that should be maintained.

Research and outreach networks:

The platform also serves a networking and information hub for potential and ongoing participants in NCS projects around the country.

Tapping into demographics that would not otherwise be represented or interested in environmental regeneration is also an eco-social opportunity for the UK. This platform, with sufficient marketing and usefulness, could bring people together in new ways across communities. This includes regenerating ageing and dying communities in parts of the country by having people of different ages working together to generate Natural Climate Solutions.

This may require design tailoring for certain demographics of participants. Access can be widened through polycentric and distributed project generation and support. Having dedicated regional centres for such initiatives may be useful. For example, The Create Centre in Bristol: <https://www.createbristol.org/>

Integrating experts and knowledge into project implementation can scale up solutions to increasing complexity. Adding in educational institutions such as schools, colleges, and universities, could enrich curriculums as well as providing volunteer participants to project managers.

What motivates the formation of local collectives to form into organisations? The localised and eco-social solutions that this platform seeks to provide are different from Forestry Commission programmes on offsetting, requiring strong support mechanisms to allow for voluntary/entrepreneurial action:

<https://www.gov.uk/guidance/woodland-creation-grant-countryside-stewardship>

Targeting potential volunteers and freelancers through existing networks may be invaluable to creating a nation-wide movement of eco-involvement: environmental societies, Effective Altruism networks, schools, universities, prisons, hospitals. The project can essentially function as eco-social policy.

Education and skills-building is a major opportunity. Tutorials and forestry methods material for educating and building practical skills required for project design should be integrated into the platform's resources section at length. It may be possible to reframe these as engineering/terraforming, perhaps with legitimacy from businesses and organisations: there may be roles for villages, towns, cities, and the nation to play in investing in transforming the UK landscape.

Case study:

Family Tree Planting and Drop-In session at Oxford City Farm:

The main motivations of volunteers at Oxford City Farm for both gardening and tree planting are companionship, therapeutic effect, and beneficiaries of the vegetable garden giving back (a lot of the veg is distributed for free to people who need it) Representatives from International Tree Foundation said they get lots of phone calls from people looking to get involved by planting trees but they are not necessarily the best organisation to contact because their work is mostly international in Africa, They said the Friends of the Earth platform would be useful.

Most of the volunteers are regulars. It's rare to get someone who comes once and doesn't come again. For example one volunteer lives in Blackbird Leys and walks to and back from OCF each Wednesday as part of his exercise and social regimen. OCF helps people meet their needs:

- Loneliness and isolation - OCF has a social element for these people
- Gardening as a form of therapy
- Poverty: OCF has a large plot for garden vegetables, some are sold as part of fundraising but others distributed freely

There was an important emphasis on OCF as a community initiative, made entirely by locals from a plot of land no longer needed by nearby school, not set up as part of any national/regional network. Forest Garden, a tree-planting project that takes up about 1/3 of the garden's planting area, is funded by the International Tree Foundation based in Summertown. They also fund a similar project at Stonehill Community Garden in Abingdon.

Participation:

- 2-3 people can plant one tree
- Often families plant trees together
- Spoke to group of two women and two young children who planted a tree together

The family tree planting event had around 40 attendees with half term boost despite rainy weather, about half were young children from a Facebook event with 20 'going'/600+ 'interested'.

Future goals:

OCF is looking to expand sources of funding including from the Logan Foundation:

- Very recently able to hire staff, and now have several staff whose contracts range from 6 months to 1 year. Trying to get more funding to be able to keep staff on on a more permanent basis.
- Most of the work done by volunteers is with two staff members who are experts
- Some fundraising has been generated from selling vegetables. This could either complement outside funding streams from this platform, or become a giveaway scheme to the homeless if funding is sufficient.
- A desire to get engagement from more surrounding areas and branch out from just central Oxford/Cowley, possibly gain engagement from students who are not currently aware of OCF.
- Get a better office/indoor area. Right now they are operating out of a tiny two-room temporary office. Iffley Academy has a larger portable building they don't need anymore so will crowdfund 20k starting in a couple weeks in order to be able to move the building.

Currently they are planting pear trees:



Measuring project success

Analytics of visitors to the site, and which areas and content they are accessing, can be used to get a general sense of platform performance. It is important to categorise this data to measure depth of engagement, as well as rates of completion for action.

Number of forms submitted for funding requests is a highly significant metric, which also incorporates the surrounding process of service consumption from project managers. If an email list becomes generated following the submission of the form the number of people who continue to interact through email can also be used as another metric for understanding the potential success of the project in terms of whether the project is successful in continuing community engagement and cooperation. It would also be beneficial to have live updates from on-the-ground results and progress for each project, as well as detailed separate profile pages for each project. This could be a requirement for funders/investors.

Medium to long-term changes in land-use statistics, combined with time-series landsat data, could be used as part of a nationwide project of ecological renewal. This is an exciting opportunity to utilise environmental data and processing to support a highly collaborative national project.

The ways in which communities benefit should also be included. Two surveys could be carried out, one at the start of a community member engaging with a project and one at the end of the project or midway through. The questions on the survey could include the following, on a scale to 1-5:

- How many days a year do you engage with community activities? (Have bins for the different categories eg 1-2 or 7-14 etc)
- How much time in a month do you spend outside in rural areas?
- How connected do you feel to the countryside?

Looking at the longer term evaluation of success, the plots of land which have successfully had trees planted on can be assessed for their contribution to carbon drawdown through following the Forestry Commission's Carbon Assessment Protocol:

https://www.woodlandcarboncode.org.uk/images/PDFs/WCC_CarbonAssessmentProtocol_V2.0_March2018.pdf

Challenges to implementations

Financing projects

Flow of capital into Natural Climate Solutions should not be based on offsetting programming. Therefore, investment into projects must be done through mechanisms other than private carbon credit schemes. Incentive structure required will be radically different.

Floating funds that exist, for example, at the DEFRA or Green Climate Fund level could be utilised. Previously EU funds could be used to subsidise action, but with Brexit this is no longer possible. It is possible that existing non-Directive-based linkages with funding streams could be maintained.

Maintaining projects

The ongoing viability and success of projects is crucial for NCS development for impact nationwide and elsewhere in the world. However, monitoring projects can be time-consuming, expert-oriented, and expensive.

This is perhaps something research institutions could play a part in, or parts of local councils. Proper leadership for improved Ministry agency on NCS will be highly relevant here. Participants need to feel like they are part of something meaningful and that it is legitimised and supported. Fighting against a system that is hostile to NCS in the UK will be a major disincentive to start these projects and see them through.

Expert knowledge

Demonstrating viability will be of great importance to funding bodies and institutional networks. Simultaneously, these networks can be utilised to improve the evaluation and design of projects. Geography and ecology students, researchers, and faculty at colleges and universities can offer a large proportion of pro bono work for NCS, while also enriching the process. If the mission is to enhance the ecological depth and complexity of UK nature, detailed information on opportunities and risks on the ground will be needed.

Estates and landed nature of UK

Platforms such as the Future Forest Network given information to landowners who may be interested in transitioning part of their landholding into a nature-based solution.

We want our platform to actively encourage previously uninterested parties in starting new NCS projects on their own land, including presenting the case for alternative business models that incorporate funding streams and partnerships with corporations.

Discussions, negotiations, and political challenges, will likely need to be levelled at the land of the Crown, and the Duchies. This land should not be used to profit the crown if there are ways it can be rewilded and start to reverse historic unfairness and exploitation in the land economy. This may require working with government committees and the House of Lords to consider transition plans.

Environmental psychology of incentives

The aim of this platform is to encourage previously uninterested parties in starting new NCS projects on their own land. This will be difficult - encouraging any new pro-environmental behaviour (especially one that provides few to no direct personal benefits to the individual) is extremely difficult. In his paper, Schultz (2014: 110) suggests potential management styles that should be introduced depending on the benefits and barriers to participation⁹:

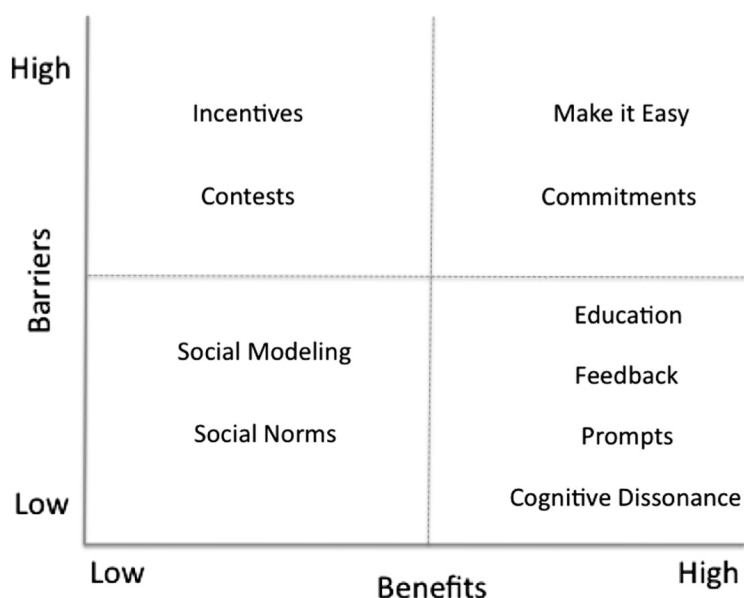


Figure 2. When various behavior change tools work best.

It is important to determine where NCS fits in this basic schematic - It could be argued that it is of low benefit with potentially high barriers (expensive, land change permission, access to land in the first place, long term commitment - particularly if on individually-owned private land). Incentives are the best method - but the obvious incentives are financial, or suggesting participation as a form of carbon offsetting (still implicitly financial) and not what we want the platform to represent.

⁹ Schultz, P. W., (2014) 'Strategies for Promoting Proenvironmental Behavior: Lots of Tools but Few Instructions' *European Psychologist* (2014), 19, pp. 107-117. <https://doi.org/10.1027/1016-9040/a000163>.

On the other hand Gooden and Grenyer (2018) highlight that many individuals are interested in using their land for private conservation such as through engagement with NCS schemes because they enjoy it - it is psychologically stimulating.¹⁰ There is not a clear pattern of who or why individuals would engage with private land conservation. In particular, papers within the conservation literature such as van den Born et al., (2017) frequently split motivation into either value-driven or incentive-driven.

Financial participation

Financial payments as well as technical assistance also encourages PLC, as this overcomes barriers to an individual and barriers that they may face -- particularly if they were to make no financial profit from the land itself after transformation to conservation (Selinske et al., 2015) However, financial incentives alone do not stimulate direct action for all land-owners; it is typically a means to engage in already stimulated conservation desires (Ernst and Wallace, 2008; Farmer et al., 2011).

These incentives ignore the psychological aspect of conservation/ pro-environmental behaviour. In particular, Gooden and Grenyer (2018) examine the mental wellbeing that being involved with practical conservation can bring. Van den Born et al., (2017) in particular found that committed conservation actors are, in part, driven by the belief that this activity and engagement with nature contributes to a meaningful life.¹¹ The desire to be personally involved in conservation work is a central motivating factor for owning a Privately Conserved Area (PCA). Whilst this NCS platform is not specifically aimed at conservation, a specific criteria of NCS is that it a) draws down carbon from the atmosphere, and b) enhances biodiversity - both of these relate directly to conservation, particularly to land conservation rather than specific species conservation efforts. As a springboard for integration, it could be invaluable.

Relating back to demographics and user tailoring previously highlighted, farmers have certain conceptions of the environment that correspond to their identity and place. Notions of landscape restoration can also be locationally specific; old agricultural buildings or miner towns for example. Current methods of farming, which are supported by different Associations (e.g. The Pasture-Fed Livestock Association), will raise challenges to making any sweeping and dramatic changes to the UK landscape. Sensitive negotiation and compromise may be required.

¹⁰ Gooden, J. and Grenyer, R. (2018), 'The psychological appeal of owning private land for conservation.' *Conservation Biology*, 33: 339-350. doi:10.1111/cobi.13215

¹¹ Riyan J.G. van den Born et al (2017) 'The missing pillar: Eudemonic values in the justification of nature conservation', *Journal of Environmental Planning and Management*, 61:5-6, 841-856, DOI: [10.1080/09640568.2017.1342612](https://doi.org/10.1080/09640568.2017.1342612)

Summary:

Insight and Proposals Wrap-up

Run on-the-ground user profiling and testing:

Consult samples from different demographics, with concern for regional representation, and gather data on what content they would like to see, and what they would be willing to get involved with provided the financial backing is there to support them and reduce risk.

Corporate Subscription model for Platform:

Basing the funding on a subscription model can help tackle the need for ongoing project support, as well as linking in and affiliating businesses. Running design-oriented consulting sessions with potential corporate subscribers will help bring managers on board and get feedback on what information/updates they may want to see as a result of their support. This can run essentially like an “adopt a climate solutions project” scheme, similar to those concerning endangered animals, but with opportunities for active pro bono participation in such projects for certain employees.

Influencing Environmental Behaviour:

We should be concerned with goal-directed pro-environmental behaviour which is the behaviour people adopt with an explicit goal of doing something beneficial for the environment.

The environmental psychology field looks specifically at what motivates actions related to the environment. The following are useful motivation strategies which could be relevant when considering the narrative of the platform:

- Equip people with knowledge. People need to know both why an action is important how to do it and stories are often more effective than abstract statements.
- Inspire the ‘feel-good’ factor and tap into empathy: People are more moved by positive messages than gloom and doom.
Building empathy motivates people to change their behaviour, and it is relevant in addressing impacts of behaviour that can be difficult for individuals to perceive directly, such as how their behaviour affects climate change.
- Make it easy. People can have wonderful intentions, but if the practical support isn't there, the action often won't happen. Don't overcomplicate the platform - the user journey should be seamless and straight forward.
- Make it enjoyable. Positive messages, social norms and group activities can make sustainability related behaviours seem more fun. Messaging that makes us feel good is

more likely to build empathy and lead to proactive actions, compared with messaging that makes us feel guilty or helpless about climate change and the environment.

Website design/UX/Front-end:

The focus areas of this report did not include technical proposals for web development that include direct design considerations. However, there are a number of points this team has considered and may recommend:

- Advanced searches with potential algorithmic augmentation to allow for both user-specific tailoring and automation. This will reduce the time required for the user to find relevant projects.
- Reduce hyperlinking as much as possible: links to information and content should not drag users away from the platform to others. This makes network collaboration important on the design-side.
- Simple but highly visual UX, HTML and CSS. There are many site-builders out there, but making sure this platform is sufficiently unique will require some ground-up development and integration. Bringing on specialist web developers will likely be necessary. Providing visual cues and image-following will not only make the experience more enjoyable, but will improve accessibility.
- Implement user-testing and feedback for interface comfort and feel. Qualitative data for preliminary design thinking can save time and optimisation down the line, while also engaging communities with this new project and letting them have a say/input.

END
