



University of  
**Strathclyde**  
Business  
School

# Carbon Offsetting for Communities

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# Background

- Voluntary, nature-based carbon offsetting offers a means of an organisation offsetting its carbon emissions by funding reductions or avoidance elsewhere
- Typically taking the form of afforestation or peatland restoration but also scope for hedgerow, grasslands and “blue carbon”.
- Market is very fast growing but highly unregulated, not least in Scotland and the UK.



# Background

## Scotland's largest carbon credit developers

10 largest developers of Scotland's carbon credit projects, by total area (in hectares)

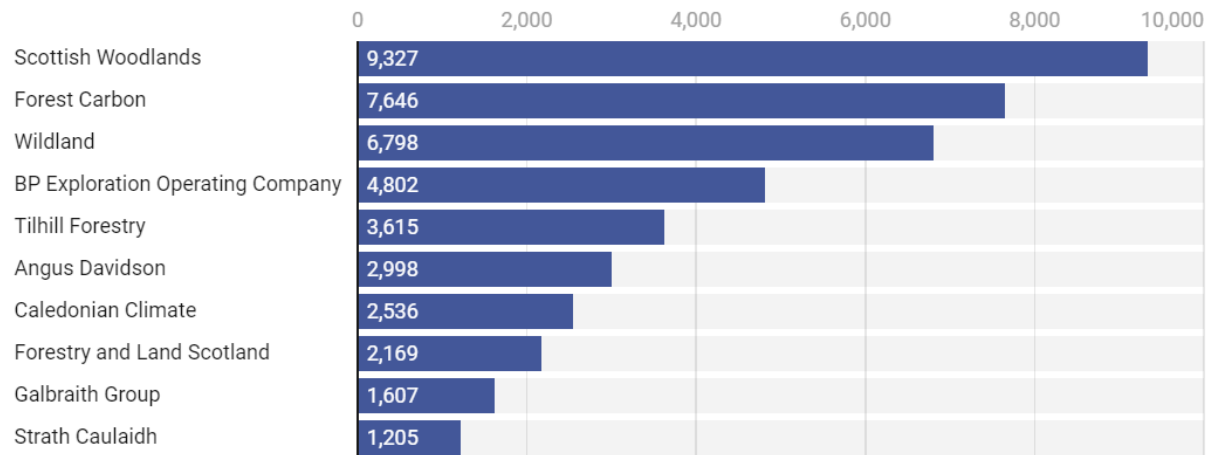


Chart: The Ferret • Created with [Datawrapper](#)

Source: [The Ferret](#)

The Ferret looked at the developers of all the Scottish projects voluntarily listed on the peatland and woodland carbon codes.

## Recent high-profile purchases

... BBC

### Rewilding company buys £10m Argyll estate

Highlands Rewilding plans to expand areas of Atlantic temperate rainforest on Tayvallich Estate.



Drumbrae is the first of several sites where we will create woodland and improve open habitats. We are doing this to offset our carbon emissions from unavoidable travel while benefitting nature. View maps, check the timeline and tell us what you think in our survey.



### BrewDog steps up reforestation drive with purchase of Cairngorms estate

BrewDog has bought over 9,000 acres of land in the Cairngorms in a bid to reduce the craft beer producer's carbon footprint.

Par Equity and Aviva Investors have announced plans for a woodland creation and peatland restoration scheme in the North East of Scotland, aiming to capture more than 1.4 million tonnes of carbon dioxide.

The fund managers have partnered to establish an investment vehicle which has acquired 6,300 hectares of moorland in the Glen Dye area of West Aberdeenshire.

# Background

- Unclear whether voluntary nature-based carbon offset projects will provide Scottish communities with much direct benefit or control.
- **A real danger of communities being adversely impacted by this fast moving sector** unless precautions are taken at the outset.
- Project explores how voluntary nature-based carbon offset projects may impact Scottish communities and how they could be designed to maximize place-based, community benefits in the future.

# Project funding

- The **Carbon Offsetting for Communities** project commenced in September 2022 and will end in Summer 2023.
- Funded by the **Scottish Universities Insight Institute**.
- Additional funds from the **Strathclyde Centre for Sustainable Development's COP26 Legacy Fund**.



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insight institute**  
mobilising knowledge for a better Scotland



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SUSTAINABLE  
DEVELOPMENT**

# Project team and partners

## Project team

Name	Affiliation
Prof Matthew Hannon (lead)	University of Strathclyde
Prof Tavis Potts (co-lead)	University of Aberdeen
Dr. Claire Haggett	University of Edinburgh
Dr. Jennifer Roberts	University of Strathclyde
Malcolm Combe	University of Strathclyde
Dr. Magnus Davidson	University of Highlands and Islands
Prof. Roxanne Andersen	University of Highlands and Islands
Jamie Brogan	Edinburgh Climate Change Institute (non-academic)
Claire Wharmby	Edinburgh Climate Change Institute (non-academic)



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Glasgow



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**ABERDEEN**



University of the  
Highlands and Islands  
Oilthigh na Gàidhealtachd  
agus nan Eilean



## Project partners



**The Scottish  
Government**  
Riaghaltas na h-Alba



HIGHLANDS  
REWILDING

COMMUNITY\*  
LAND SCOTLAND



SCOTTISH LAND COMMISSION  
COIMISEAN FEARAINN NA H-ALBA

Trees for L<sup>y</sup>fe

# Project timeline

- **Sept 2022** – Kick-off workshop and [report](#).
- **Autumn 2022** – Two on-line “masterclass” sessions on specific issues (e.g. biodiversity credits, ScotGov’s Private Investment in Natural Capital programme)
- **October 2022** – Field-trip to Loch Ness, to visit Trees for Life and Highlands Rewilding.
- Three [Local Zero podcast](#) episodes.
  - Two related to Edinburgh Business School/BIEE event “[Green Lairds and the great carbon offset](#)”.
  - Post-field trip episode, [spotlighting how communities have spent community benefit funds from onshore wind and hydro plants](#).



# Workshop March 2023

1. To offer greater insights into the **key project design choices** facing voluntary nature-based carbon offset developers and their associated **trade-offs with respect to community benefit**;
2. To better understand the ways in which **market structures** are encouraging specific kinds of project designs and their associated community impacts;
3. To uncover **what we mean by “community”, “community benefit” and “community wealth building”**, in the context of nature-based offset projects and how we might **evaluate community benefits**;
4. To understand **strategies to support community wealth building** through natural capital and nature-based offset projects; and
5. To better understand the **different roles communities may play** in shaping, governing and/or owning nature-based carbon offsets and the approaches needed to facilitate these.





# Workshop March 2023

## Universities



University  
of Glasgow



UNIVERSITY OF  
OXFORD



LOYOLA  
UNIVERSITY  
NEW ORLEANS

## Public bodies



Highlands and Islands Enterprise  
Iomairt na Gàidhealtachd's nan Eilean



Cairngorms  
NATIONAL PARK



Scottish  
Forestry  
Coilltearachd  
na h-Alba



Forestry and  
Land Scotland  
Coilltearachd agus  
Fearann Alba

## NGOs



Peatland Programme



WILDLIFE  
WORKS



Scottish  
Environment  
LINK

COMMON  
WEALTH



Scottish  
Land & Estates

## Companies

FOREST  
CARBON



CALEDONIAN  
CLIMATE  
Partnering for net zero

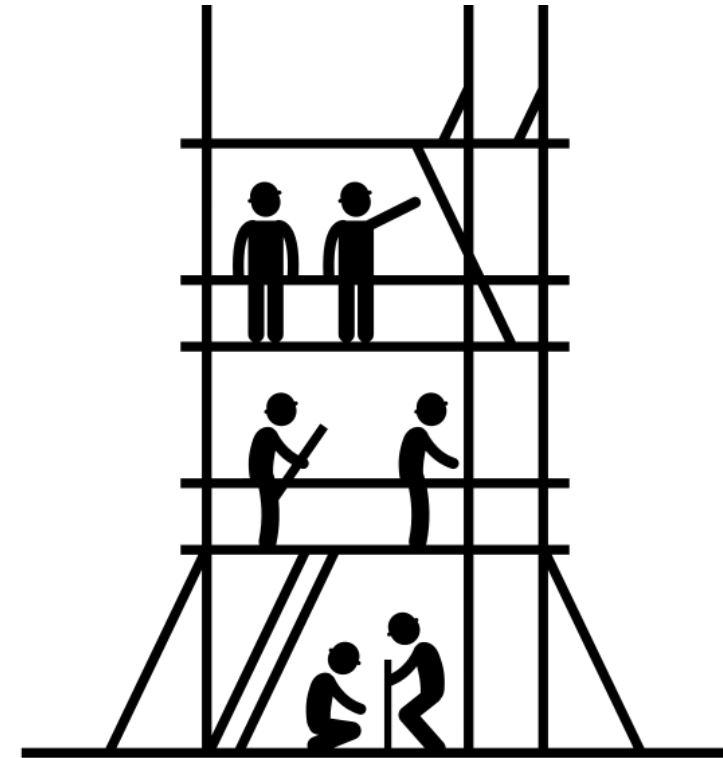
finance  
earth

savills

# Workshop March 2023 – initial findings

## Cross-cutting

- Carbon offsetting could be a force for good or evil in pursuit of community wealth building.
  - Most concerns around lack of community wealth building were considered a manifestation of broader structure of our economy is structured (e.g. CO2 credits primarily benefit landowners).
  - Priority number one: getting basics of land system right.
- Been here before
  - Much to be learned from community benefits and engagement from REDD+ projects in developing countries.
  - Obvious similarities with community impacts associated in developed countries with water and energy.



Created by Gan Khoon Lay  
from the Noun Project

# Workshop March 2023 – initial findings

## Cross-cutting

- Competing interests: How do we balance land use so that it delivers multiple benefit streams? Myopic focus on carbon at detriment to other services. Integrated regulation and market design critical.
  - E.g. if deer fences are put up for woodland creation plans, this may interfere with right to roam for example.
  - E.g. how does rewilded land for carbon offsetting affect opportunities for crofting?



**Created by IconsHome**

# Workshop March 2023 – initial findings

## Funding and finance

- Assumption amongst many that we need private money to make this market work. This was strongly contested at the workshop but we want perspective from other developers and investors to offer balance.
  - Must be careful about organising terms of the debate – such as natural capital – that play into (flawed?) incumbent economic paradigms.
- Public £ - When and how should we be spending public funds re offsets? Is current model further entrenching Scotland's land concentration & enabling landowners to benefit further? How does it support community wealth building?

**£2 billion private finance pilot potential 'vital step in restoring Scotland's woodlands'**

“NatureScot, Scotland's nature agency, is partnering in a private finance investment pilot that could mobilise £2 billion in landscape scale restoration of native woodland, create new jobs and support rural communities across all parts of Scotland.”  
([NatureScot 2023](#))

# Workshop March 2023 – initial findings

## Funding and finance

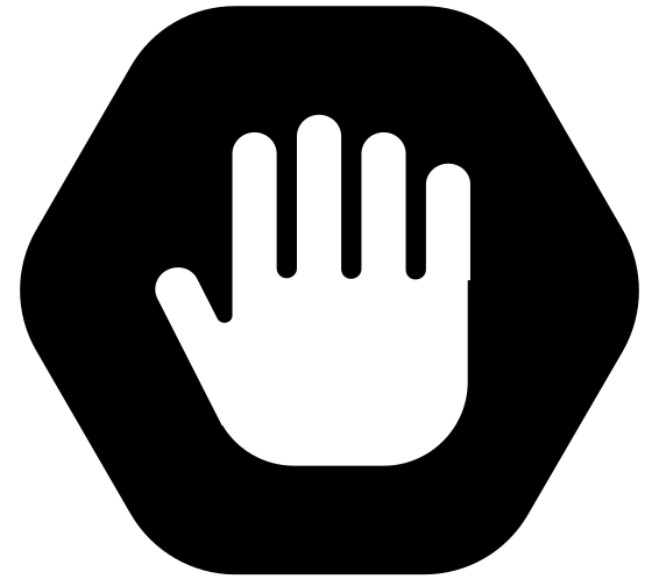
- Outstanding question about how the economics of these project stack-up.
- Typically focus on multiple revenue streams (e.g. carbon + biodiversity credits, grants, tourism, timber etc.). These also come “online” at different times.
  - Land values are of particular interest and the assumptions of how these appreciate over time.



# Workshop March 2023 – initial findings

## Governance

- How we finance offset projects has a direct implication for how they are governed and vice versa (e.g. payback period, voting rights, junior/senior debt).
- Community veto: often identified as critical to empowering communities and offering them meaningful control but concerns this might be anathema to private investment. Community finance and shares another option but assumes capacity/willingness to invest locally.
  - *“If you don’t trust communities, they won’t trust you”*
  - *“The question will be, who has the power?”*
- Risk vs reward: Offsets present a very long-term liability to landowners. They may forgo some reward and control in order to mitigate risk. See leasing to offset developer established SPV versus landowner DIY.



Created by Adrien Coquet  
from the Noun Project

# Workshop March 2023 – initial findings

## Governance

- Open question about how intermediary organisations, like National Park Authorities, should be involved in connecting and integrating activities across specific areas. Unique position of influence.
- Growing emphasis on connecting multiple landowners together as part of much wider nature-based activity e.g. [Affric Highlands](#), [Flow County Green Finance Initiative](#) etc.
  - Latter will see a Scottish Charitable Incorporated Organisation (SCIO) established to “support, connect and scale existing projects within the region and structure responsible investment opportunities”, with profits “accrued from investments, ecosystem services and carbon credits...reinvested into community projects.”

# Workshop March 2023 – initial findings

## Policy and regulation

- Regulation, governance and verification of project moving at pace.
  - Open question about how heavily these principles will be regulated for.
  - UK and Scottish Governments both exploring high-integrity principles independently but cross-government working beginning to happen.
  - Land reform central, especially taxation (e.g. land value tax), land sales (e.g. community right to buy, asset transfer, public interest test) and responsibilities (e.g. Land Rights and Responsibilities Statement) etc. to explore how it democratises land concentration and encourages community benefits.
- Frameworks being actively explored to offer nature-based offset investors confidence in their rate and/or timing of return. Lessons being learned from energy sector:
  - Contracts of difference (strike price), guaranteed floor price, guaranteed purchase at specific date (e.g. 2050).



# Workshop March 2023 – initial findings

## Community benefits

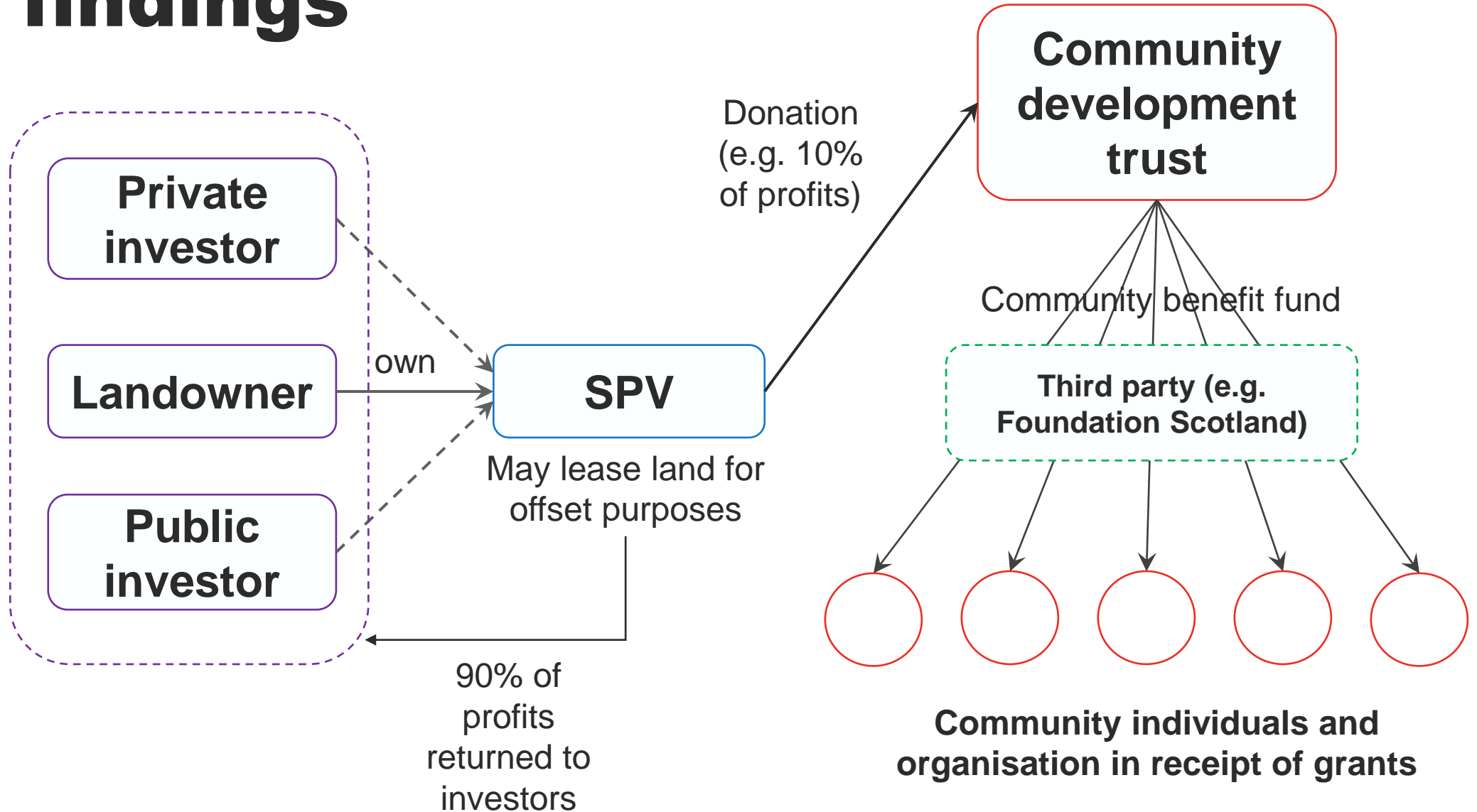
- Initial questions:
  - Who is the community we are targeting? Might be a community of place, practice, identity etc.
  - What are the community's priorities? What do they value?
  - What opportunities does the landscape and the local community afford? Can they realise these independently?
- Timescale: Community and landscape evolve over decades/centuries. How do we design for inter-generational community benefits and governance?
  - Communities may need to wait for years before revenue generated and shared. Can we front-load this?
- Spatial/geographic scale: Question of how community breadth and depth of community benefits may need to scale with the size of project?
  - Sensitive to smaller projects probably being community-led too.

# Workshop March 2023 – initial findings

## Community benefits

- Concerns of carbon offsetting represents the latest iteration of an extractive markets: 1940s – Hydro; 1960s – Oil and gas; 2010s – Onshore wind
- Emerging model of establishing SPV that syphons off ~10% of profit to local community benefit fund, to be managed by community development trust. Aim to achieve “**social licence to operate**”. Similarities with renewable power model.
  - “No strings attached” funding empowers community but where are checks and balances to ensure money is being committed in a way that resonates with wider principles of climate action and social justice?
  - Concern we might see “community washing”, akin to “greenwashing”.
  - Scope for share of revenue to be transferred to regional or national (rural?) funding pots to ensure not just local communities benefit. Especially when projects being pump-primed by significant public funding.
  - Management of these funds is often outsourced to a third party too, see [Foundation Scotland](#).

# Workshop March 2023 – initial findings



# Workshop March 2023 – initial findings

## Community benefits

- Major challenge to measure, forecast and articulate the community benefit associated with nature-based carbon offset projects. Common language essential.
  - Benefits (what) versus beneficiaries (who).
  - Benefits not neutral – winners and losers.
  - How does carbon sequestration fit into a mosaic of wider social, natural and economic benefits? Trade-offs?
- Toolkits now emerging to assist developers/landowners/communities with measuring level and type of benefits, e.g. [Woodlands Benefit Tool](#).

# Workshop March 2023 – initial findings

## Community benefits

- If offsetting is to support **community wealth building**, it must promote community wealth building via:
  1. **Socially just use of land and property** - as a key expression of economic power and driver of inequality.
  2. **Plural ownership of the economy** - wealth is shared more broadly.
  3. **Making financial power work for local places** - recycling money rather than external capital.
  4. **Fair employment and just labour markets** – anchor institutions promotion of employment practices and other elements key driver for inertia.
  5. **Progressive procurement** – an ecosystem of local supply chains.

“**Community Wealth Building** is a people-centred approach to local economic development, which redirects wealth back into the local economy, and places control and benefits into the hands of local people...

[It] aims to ensure the economic system builds wealth and prosperity for everyone through local economic systems change.”

Source: [MacFarlane and Brett 2022](#)

# Workshop March 2023 – initial findings

## Community benefits

- Key indicators of success:
  1. **Local, broad-based ownership** – minimising absent ownership, perhaps obviously community ownership far and away best scoring.
  2. **Large local multipliers** - harder to quantify, prioritising recirculation, are profits reinvested or extracted.
  3. **Collaborative decision making** – large discrepancy between individual owners and community owners in terms of democratic governance.
  4. **Inclusive well-paid jobs** – terms and conditions important for local jobs underpinning economic security and living standards.

Source: [MacFarlane and Brett 2022](#)

# Workshop March 2023 – initial findings

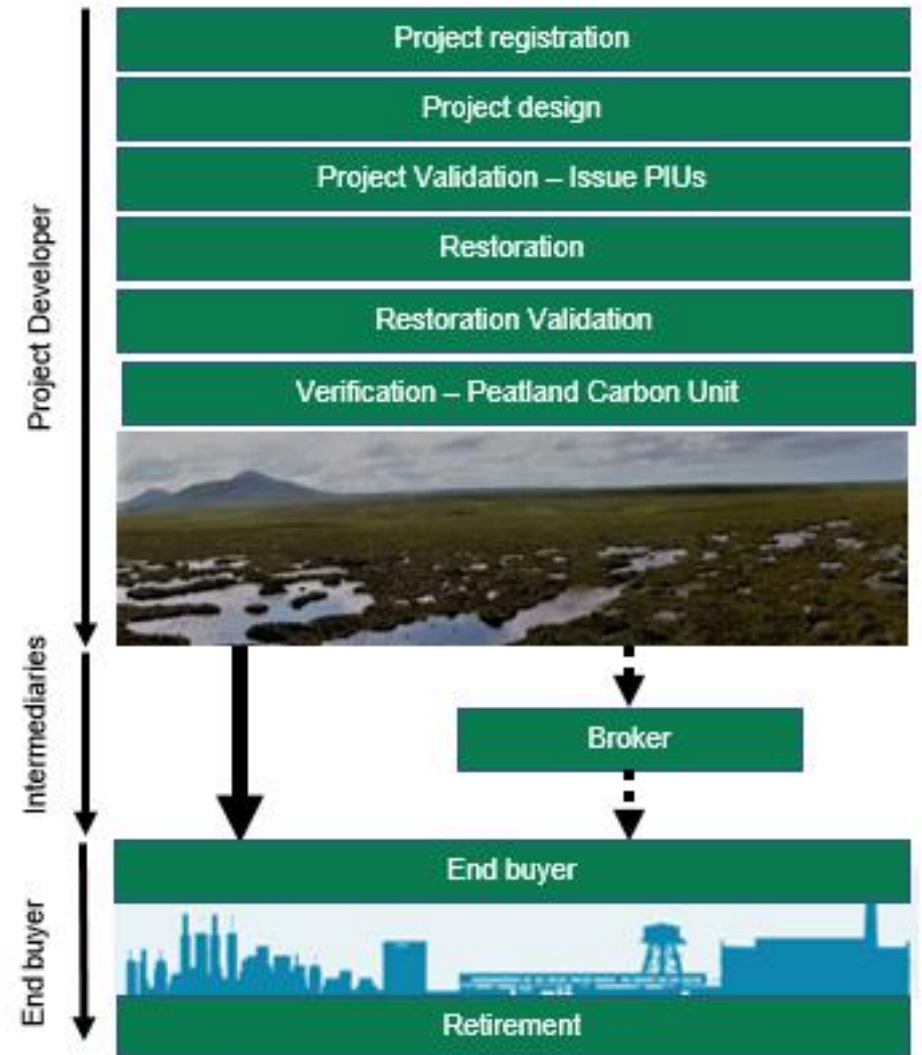
## Community engagement

- Community engagement starts with transparency & helping communities understand often alien/complex info re finances, markets, law etc.
  - What capabilities (e.g. knowledge) and capacity (e.g. personnel, finance) do they need to meaningfully participate in this marketplace?
  - Confidence to engage also critical.
- Different cultural norms associated with community engagement, conflict resolution, legitimacy building etc. Must firstly understand the community's “way of working” prior to engaging on issues BUT time/£ limited!
  - The “*idiosyncrasies of local communities*”.

# Workshop March 2023 – initial findings

## Community engagement

- Question about **what stage of project design might be best to engage communities?**
- Project might need sufficient detail to offer foundation for engagement with community but suggests independent formulation of ideas with community at outset →
- Helpful if community already have a development plan, to understand how offsetting fits:
  - BUT formulation of such a plan, across a community, require training and resourcing. Community development officers key!



Source: Kerkvliet-Hermans, IUCN



# Workshop March 2023 – initial findings

## Community engagement

- Potts et al. at Aberdeen have developed the following three phase approach:
  1. Identifying natural capital in a place identifying the benefits it provides – we pour over maps together with local stakeholders and identify features of interest.
  2. Exploring scenarios and trade-offs – what happens when you intervene and restore or remove certain habitats? E.g. the transition from salt marsh to mud flat – a major change of ecology. The benefits change with this transition.
  3. Logic chain development – looking at the relationship between the benefits and the beneficiaries. To which groups do the benefits flow? Which groups rely on which elements of natural capital.

# Contact



For more reading: <https://www.scottishinsight.ac.uk/Programmes/JustTransition/CarbonOffsetting.aspx>

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TWITTER - [@hannon\\_matthew](https://twitter.com/hannon_matthew)

LINKEDIN - <https://www.linkedin.com/in/matthew-hannon-10185922>

POD: <https://podfollow.com/localzero>

# Forthcoming outputs

- **Four Local Zero podcast episodes** that stitch together highlights from across the two days or record a live session.
- **Live illustrations** of workshop discussions.
- **Extended blog** that pulls together key insights from across the two days. Target The Conversation.
- Workshop notes will feed into the **final SUII project report**, as a long-standing record of discussions.



**THE  
CONVER  
SATION**

# Workshop March 2023 – initial findings

## Carbon market design

- Hoarding of PIUs and credits happening, as expectation that prices will rise. Also, for some investors, unclear what share of credits may be needed for in-setting.
- Charismatic carbon: how might the provenance of carbon impact its market value. The M&S model: *“This isn’t just any carbon...”*. How is community benefit and people factored into this equation?

### Box 2.1 “Community” in low carbon governance

Based on a review of policy, practice and academic literature, Walker (2011) identifies six uses of the term “community” in relation to low carbon initiatives. In brief, these are:

*Actor:* a body of people that can act as one and interact with others.

*Scale:* a scale at which to act, “above the individual and households, but typically below the level of local government” – and also independent of formal government structures.

*Place:* the “local” community, the idea that place is important for social relationships – often carried into initiatives such as “a village or town becoming a low-carbon community”.

*Network:* social relationships and networks – which may be focussed on one place, but may also span many places. For the latter he suggests “examples would include a network of investors in a ‘community’ renewable energy project”.

*Process:* “a distinctive way of acting, involving the participation of ‘ordinary people’ in collaborative processes, often also very ‘hands-on’, involving voluntary and consensual rather than coerced involvement”.

*Identity:* a way in which people prioritise actions, or think about themselves, which emphasises collective interests at the community scale (see above).

Source: Walker (2011): 777-778.