

AGROECOLOGY:

ENABLING THE TRANSITION



KTIF / 011 / 2022

Knowledge Transfer & Innovation Fund (KTIF) Scottish Government Final Report

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1. Project title / applicant

Agroecology: Enabling the Transition was a peer-to-peer knowledge exchange project between farmers, crofters and growers. It was delivered by Nourish Scotland, The Soil Association, The Landworkers' Alliance (LWA), The Nature Friendly Farming Network (NFFN), Pasture for Life (PFL) and Propagate. Each partner organisation works directly with farmers, crofters and growers across Scotland.

Partnership Overview

Nourish Scotland (lead facilitating organisation) is a charity focused on food and farming policy in Scotland. Nourish chairs Scottish Environment Link's food and farming group. We also convene the Scottish Food Coalition, a partnership of around 40 civil society organisations. Nourish Scotland initiated and organised the Farming for 1.5 inquiry which brought together farmers, scientists and environmentalists to develop a consensus report 'From here to 2045'.

The Soil Association established in 1946, is the UK's leading charity working for healthy, humane and sustainable food, farming and land use. Soil Association Scotland was created in 2002, to provide a focus for the Charity's work in Scotland. The Charity has a long and successful track record of working with the Scottish Government and partners organisations to deliver programmes of work for sustainable and healthy food, farming and land use. Our programmes are delivered in partnership with a wide range of public and non-governmental organisations. These programmes aim to demonstrate and enable practical solutions for transforming the way we way eat, farm and care for the natural world to restore nature, a safe climate and health

The Landworkers' Alliance (LWA) is a union of farmers, growers, foresters and land-based workers with a mission to improve the livelihoods of our members and create a better food and land-use system for everyone. We operate across the UK and represent more than 1500 agroecological farmers and landworkers. Our policies, representation and training come from farmers, growers, crofters, foresters and land-based workers who have direct experiences of the issues we work on. Projects include mentoring, support for peer-to-peer networks, knowledge exchange and policy-related activities. The LWA has been active in Scotland since 2018 and published a manifesto in 2021 with financial support from the Pebble Trust.

The Nature Friendly Farming Network (NFFN) is a farmer-led, independent UK organisation established in November 2017 with a growing farmer and public membership. NFFN unites farmers and crofters who are committed to managing their land for wildlife and the delivery of public goods, as well as growing and providing healthy and nutritious food. The membership covers a range of backgrounds big and small, organic and conventional and seeks to secure positive changes in policy, including how farming is supported by the public. With an established NFFN Scotland Steering Group and a dedicated Scotland Sustainable Farming Lead, NFFN works to raise awareness of nature friendly farming in Scotland, shares insights and experience and works in collaboration with others for better policies for food and farming.

Pasture For Life (PFL) is the UK's only certification body for 100% Pasture-fed beef, lamb and dairy products. With over 800 members, paying an annual fee each year and more than 130 certified farms, PFL is the home of grass-fed ruminant agriculture in the UK. The organisation promotes the unique quality of produce raised exclusively on pasture, and the wider environmental and animal welfare benefits that pastured livestock systems represent. PFL is at the cutting edge of new grazing management techniques, is a platform for regenerative farmers to learn and succeed and is committed to providing support for farmers transitioning to more sustainable production methods. With a strong

research focus, PFL is a highly networked organisation promoting the interests of its members and ensuring a secure and robust future for them.

Propagate is a worker led collective specialising in local, sustainable and community food projects. We work across South West Scotland and the Central Belt. Much of our delivery is nature and climate friendly food and farming education - we work with farmers building peer to peer learning networks that enable transitions to regenerative farming; with communities and schools understanding soil health, food sovereignty and agroecology; and local authorities and national government supporting policy and strategy for better food systems.

2. Executive Summary

The Scottish Government has a vision for Scotland to transition to sustainable and regenerative agriculture. This includes a commitment to supporting biodiversity & climate targets and a just transition where farmers, crofters and growers are involved in the co-development of policy to ensure sustainable livelihoods. To support this transition, food producers called for peer-to-peer knowledge exchange in response to the Agricultural Bill consultation.

Nourish Scotland, Nature Friendly Farming Network, Soil Association, Propagate, Pasture for Life and Landworkers' Alliance set out to bring farmers, crofters and growers from conventional, organic, regenerative and agroecological farming systems in a peer-to-peer knowledge exchange programme to learn about and implement agroecological practices.

What we did	What we achieved
Set up six region and topic specific knowledge exchange groups. Groups went on farm visits, had Zoom calls and WhatsApp groups.	89 farmers / crofters / growers participated with a further 55 engaging more sporadically. Practices participants committed to implementing included: compost extracts and teas, collars for cows, outwintering, reducing inputs, tree planting, regenerative grazing.
6 nationwide public online webinars, one in-person cross-group event.	222 farmers, crofters and growers attended webinars with 354 registering. In-person event was a success with cross-group discussions on agroecological practices and

	opportunities and challenges for the agricultural transition.
Active communications engagement. Sharing project learnings in local and national media.	5935 farmers/crofters/others download information on the project/watch online content 6 pieces about the project in farming, local or national media 118,436 social media impressions

What we found:

- Effective knowledge exchange programmes where participants feel heard, involved in decision-making, valued, able to contribute and to showcase their work and get feedback is key to support practice-change.
- Diversity in knowledge exchange programmes in terms of expertise, sector, time farming, farming system, land tenure arrangement and size of land.
- **80%** of those involved stated wanting to continue with these peer-to-peer knowledge exchange groups.
- Barriers to participation include travelling & accommodation costs, rural connectivity and caretaking responsibilities. Supporting participation costs would increase the diversity of participants in terms of gender and socio-economic class.
- Local and national governments have an invaluable opportunity to engage with these local groups to continue their commitment to policy co-development.

Peer-to-peer knowledge exchange can provide critical support needed for the transition to sustainable and regenerative agriculture by building resilient farmer, crofter, grower networks. This also supports the reduction of social isolation, contributing to well-being in the sector.

3. Project description

Agroecology: Enabling the Transition set out to increase awareness and engagement with agroecological practices through a peer-to-peer knowledge exchange programme. This took place between 07/07/22 and 31/03/23. The target audience were farmers, crofters and growers throughout Scotland who had different levels of engagement with agroecology. We included those who would consider themselves agroecological practitioners and those who were more sceptical but still interested in taking part. Farmers, crofters and growers were based in West Coast, Central Scotland, Islay, Jura and Colonsay, North East Scotland, South West Scotland and Scottish Borders.

Background

The role of farmers, crofters and growers is undergoing transformation. For generations, their focus was on producing food to feed the nation. Now, they are increasingly asked to also protect our long-term food security – to farm in ways which contribute to mitigating climate change and protecting biodiversity. With 75% of Scotland's land being used for farming (Scottish Government, 2014), this transformation is necessary to meet climate goals. This is a big task which requires farmers to learn new skills and change their practices.

We know that farmers often learn by doing and by replicating the effective practices they see around them. Yet, the continuing professional development opportunities for farmers are limited. Where they exist, they are often desk based and do not incorporate the social element of learning – peer support, discussion and sharing. These aspects were identified by the Farming 1.5 Inquiry as a first step towards achieving climate-compatible farming in Scotland (Avis *et al.* 2019). Participants in our previous project: “Agroecology - facilitating mindset change”, led by the same partnership, said that when examples of agroecology in action are shared and appropriate support is offered, they would implement changes in their own holdings.

The Scottish Government has highlighted how peer-to-peer support contributes to ‘nationwide cultural change [which] is critical to our success to cut emissions, enhance biodiversity and retain our world class food and drink industry’ (Scottish Government, 2022, Sustainable and regenerative farming - next steps: statement). Further, responses to the Agricultural Bill consultation underlined the need for “peer-to-peer knowledge exchange, local discussions groups and improved access to skills and development opportunities” (Scottish Government, 2022).

Project design

With this background, we decided on three main elements to our project:

1. Six region and topic specific knowledge exchange groups with 10-12 farmers. Each partner organisation was responsible for one of the groups. These groups meet on farm visits and keep in touch through Zoom calls and WhatsApp groups.
2. 12 online webinars, open to the public, enabling participants from throughout Scotland to join the conversations.
3. Active communications engagement. Sharing project learnings in local and national media.

4. Finance

4.1 Sum awarded

The project was awarded £112,500.00.

4.2 Detail of spend

The details of spending below are the most up to date. Nourish Scotland and KTIF agreed to extend the deadline for this in response to grant delays.

Item Description	Overall Claim	Grant Awarded	Budget remaining	Noting underspend and explain why
A) Project development Costs	£3,150.00	£3,150.00	£0.00	N/A
B) Project and financial management costs	£7,875.00	£7,875.00	£0.00	N/A
C) Project management costs	£31,741.50	£31,762.50	£21.00	Slightly less time needed than expected.
D) Project Delivery	£56,962.50	£56,962.00	£1.88	Slightly less time needed than expected.
E) Speaker / host fees	£5,071.50	£5,212.50	£141.00	Deciding to host an in-person cross-group event instead of webinars meant we did not have to pay as many speakers.
F) Travel & subsistence	£4,012.19	£4,012.50	£0.31	Slightly less cost needed than expected.
G) Event venue	£3,321.00	£3,375.00	£53.90	Catering fees for a

costs & catering				couple of farm visits were slightly less than anticipated
H) Other approved external costs	£150.00	£150.00	£0.00	N/A
Total	£112,283.42	£112,500.00	£216.58	

5. Project aims / objectives

5.1 Aims:

- To promote the adoption of agroecological practices among farmers and crofters in Scotland.
- To support the shift towards a low-carbon and climate-resilient economy in the agriculture, food and forestry sectors.

5.2 Objectives:

- Fostering agroecological knowledge transfer in agriculture
- Development of the knowledge base in rural areas
- Fostering lifelong learning and vocational development in agriculture
- Filling a gap within existing knowledge in this area (agroecology)
- Facilitating ongoing peer-to-peer learning in agriculture and the extended food system
- Encouraging agricultural practices that preserve and enhance ecosystems and restore biodiversity

5.3 Expected outcomes:

Our aim was to create safe and inspiring spaces for farmers, crofters and growers peer-to-peer learning for group member's involvement to lead to:

1. Whole farm change - for some participants, the project will help them make significant changes in their business model, whether that's reintroducing livestock

to an arable system, investing in agroforestry, converting to organics, changing breed or species, or branching out into a new agroecological enterprise

2. New practice adoption - some participants will try a new agroecological practice to see if it works. This could be for example:
 - Cutting back or cutting out grain feed for ruminants
 - Using no-fence technology to manage grazing better or to manage riparian habitats
 - Adopting high welfare pastured poultry systems and developing soya-free feed for hens
 - Undersowing and drilling into a living mulch
 - Intercropping

3. Reduced resistance to change - for some participants, there may be no visible signs of change: but the way the programme has been run and presented, the way they have been included, the things they've seen in their local paper or heard on the radio has changed their views from naw to mibbe. For other participants it will be about taking the next step to learn more.

6. Project outcomes

6.1 How the aims and objectives were achieved.

Each of the organisations led on setting up one of the six knowledge-exchange groups:

Group	Organisation	Location
Pastured Poultry Feed Group	Landworkers Alliance	West Coast Focus
Market Gardening Group	Soil Association	Central Scotland
Supporting Biodiversity within Island-Based Farming & Crofting Group	Nature Friendly Farming Network	Islay, Jura and Colonsay
Grazing Group	Pasture for Life	North East Scotland
Soil Health Group	Propagate	South West Scotland

Biodiversity & Profitability Group	Nourish Scotland	Scottish Borders
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Broadly, the groups conducted three farm visits. However, for some groups meeting online proved to be more adequate to their needs. Below is a breakdown of group make-up and group activities.

Pastured Poultry Feed Group

Pastured Poultry Feed Group Make-up	
Organisation	Landworkers Alliance
Location	West Coast & Highlands
Sign-ups	12
Who signed up	58% of the group was 40 and under, 50% identified as female and 50% as male. People indicated working in the livestock, arable, horticultural, forestry, crofting and processing sectors. Land tenure was diverse including owner occupiers, tenants, farm workers and contractors. Group members managed / worked on land ranging from 2.5Ha to 110 Ha. 25% were new entrants.
Reasons for joining	<p>These included:</p> <p><i>“I am really interested in how we can be more self sufficient, work together, and generally advance the viability, accessibility and profitability of getting more pasture poultry into our community”</i></p> <p><i>“New skill to allow us to nurture biodiversity on the farm”</i></p> <p><i>“Create a network and share ideas”</i></p>

Pastured Poultry Feed Group Meet-ups

Location	Date	Topics / Speaker	Attendees
North Ayrshire Farm Visit	26/08/22	Ramstane Farm sharing their pastured poultry practices including mobile coops and clarifying aims for the group	7
Online	26/07/22	David McClelland from Norvite discussing how they grow and process their feed in Scotland	11
Online	24/09/22	Dr. Lizzie Rowe (senior research officer at the Sustainable Food Trust and a research associate at the University of Bristol) presentation on farming BSF larvae for poultry feed, joined by farmer Mike Mallet from East Anglia	11
Isle of Lismore Farm Visit	19-20/11/22	Hosted by The Sailean project - demonstrating their pastured poultry system, how to set up a small scale slaughtery and practical workshop in chicken processing	9
Online	25/01/22	Meeting to discuss current feed situation in Scotland and also joined by Mark Chapple a farmer who is experimenting with feeding duckweed	9

Online	16/03/23	Evaluation of the project, discussing the group's policy asks and next steps	6
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Pasture Poultry Feed Group visit to Ramstane Farm, North Ayrshire, Aug 2022



Chicken processing skillshare at The Sailean Project on the Isle of Lismore, Nov 2022

Market Gardening Group

Market Gardening Group Make-up	
Organisation	Soil Association
Location	Central Scotland
Sign-ups	15
Who signed up	47% of the group was 40 and under, 60% identified as female and 40% as male. People indicated working in the livestock, arable, horticultural, processing and forestry sectors. Land tenure was diverse including owner occupiers, tenants, farm workers and some who were interns. Group members managed / worked on land ranging from 0.2 Ha to 100 Ha. 66.6% were new entrants.
Reasons for joining	<p>These included:</p> <p><i>“I am a trainee so hoping to expand my knowledge and see examples of how other agroecological market gardens are run</i></p> <p><i>“Deepening knowledge on agroecological production, gain wider perspectives on how to tackle different challenges in different contexts e.g. irrigation, marketing and selling, farm design etc ”</i></p> <p><i>“Personally, I am hoping to get to know growers experiences from Scotland (particular to the conditions in central Scotland), get to know knowledgeable and likeminded people for long term knowledge exchange and mutual support, quite interested in integrating aspects of coppicing/pollarding for woodfuel and arable at a smallholding scale with a market garden being at the core of the enterprise.”</i></p>

Market Gardening Group Meet-ups

Location	Date	Topics / Speaker	Attendees
Tomnah'a Farm Visit	25/10/22	Compost methods	12
Lauriston Farm	28/10/22	Agroforestry	13
Largo Estate Walled Garden Market Garden	3/02/23	Irrigation	14



Local food making peer-to-peer knowledge transfer a treat: Tomnah'a farm. Market Gardening Group.



Host extraordinaire Kathy Beckett shares her irrigation system strategies and know-how

Supporting Biodiversity within Island-Based Farming & Crofting Group

Supporting Biodiversity within Island-Based Farming & Crofting Group Make-up	
Organisation	Islay, Jura and Colonsay
Location	Nature Friendly Farming Network
Sign-ups	27
Who signed up	44.% or the group was 40 and under, 33% identified as female and 67% as male. People indicated working in the livestock, arable, horticultural, processing, crofting and forestry sectors. Land tenure was diverse including owner occupiers, tenants, farm workers and contractors. Group members managed / worked on land ranging from 1 Ha to 4000 Ha. 67% were new entrants.
Reasons for joining	<p>These included:</p> <p><i>“biodiversity benefits which will knock on to helping suckler cow health/profitability”</i></p> <p><i>“I’m hoping to learn from others’ experience of low input land management as I want to remove the need for artificial fertilisers. ”</i></p> <p><i>“What best to do with my croft from an environmental and biodiversity perspective as it is not our primary income so would like to explore maximum biodiversity impact.”</i></p>

Supporting Biodiversity within Island-Based Farming & Crofting Group Meet-ups			
Location	Date	Topics / Speaker	Attendees
Cornabus Farm, Islay Visit	5/11/22	Grazing management for waders, scrub	12

		management, early and late cover for corncrakes, Bokashi compost	
Ardlussa Estate, Jura, Visit	28/11/22	Invasive non-native species, grazing management and deer management	12
Claddach Croft, Islay Visit	4/03/23	Water management to increase waders, grazing practices for marsh fritillary butterfly	12



Discussing wading birds on Cornabus Farm. Through changes in grazing management, wader numbers continue to rise with a 300% increase in Lapwing, Curlew lingering longer and high numbers of wintering Woodcock and Snipe.



Walking through Mary Redman's 30 acre croft at Claddach, Portnahaven Islay. The croft is managed with biodiversity at the forefront, with local naturalists believing it to be the densest colony of Marsh Fritillary butterflies in Scotland!

Grazing Group

Grazing Group Make-up	
Organisation	Pasture for Life
Location	North East Scotland
Sign-ups	13
Who signed up	42% of the group was 40 and under, 33% identified as female and 67% as male. People indicated working in the livestock, arable, horticultural, processing and fencing sectors. Land tenure was diverse including owner occupiers, tenants and farm workers. Group members managed /

	worked on land ranging from 9.2 Ha to 2000 Ha. 17% were new entrants.
Reasons for joining	<p>These included:</p> <p><i>“To learn how best to blend old and new approaches which respect the environment but also enable us to make a living and to keep our livestock and ground healthy and happy and productive”</i></p> <p><i>“Networking opportunity, and to learn more about grazing for biodiversity and animal nutrition and health ”</i></p> <p><i>“Improve farm margins ”</i></p>

Grazing Group Meet-ups			
Location	Date	Topics / Speaker	Attendees
Atholl Estates, Farm Visit	30/07/22	Abby Rose - Soil Mentor Undertook earthworm counts, rhizosheath assessments, VESS assessments and basal ground cover transects to develop soil health monitoring skills.	22
Edinglassie, Farm Visit	26/10/22	Focus on organic conversion, and optimising forage productivity in organic systems through grazing management.	7
Strathmore Estate, Farm Visit	22/02/23	Regenerative grazing, shelterbelts, underground seed banks	36



Discussing regenerative grazing at Strathmore Farming Company, Angus.



Walking next to shelter belts at Strathmore Farming Company, Angus.

Soil Health Group

Soil Health Group Make-up	
Organisation	Propagate
Location	South West Scotland
Sign-ups	22
Who signed up	20% of the group was 40 and under, 50% identified as female and 50% as male, X% as other. People indicated working in the livestock, arable, horticultural sectors. Land tenure was diverse including owner occupiers, tenants and farm workers. Group members managed / worked on land ranging from 3Ha to 2000 Ha. 40% were new entrants.
Reasons for joining	<p>These included:</p> <p><i>“How to realise nature friendly and biodiversity to share with community ”</i></p> <p><i>“How to farm in a more environmentally sustainable way and improve the diversity of all wildlife on the farm. Learn more about the importance of soil. Learn more about small scale free range poultry production within a grassland environment.”</i></p> <p><i>”connecting with either farmers to learn more about soil health and regenerative farming”</i></p>

Soil Health Group Meet-ups

Location	Date	Topics / Speaker	Attendees
Online	15/12/22	Retrospective and monitor farm feedback	6
Online	8/12/22	Niels Corfield	8
Online	17/11/22	Reflections on policy	10
Online	2/11/22	Malcolm Hadow (GSA Biosphere)	8
Kelton Mains Farm Visit	23/09/22	Regenerative Grazing Systems, ecological monitoring, holistic management, no-fence technology	21
Balmangan Farm Visit	25/08/22	Soil Health, worm counts, biodiversity, enterprise stacking, pigs in the woods	21
Online	12/01/23	Oxford Real Farming Conference sharing	8
Online	19/02/23	Group catch up	6
Online	26/01/23	Group catch up	7
Online	02/02/23	Group catch up	6
Online	09/02/23	Group catch up	8
Online	16/02/23	Cross-group in-person event prep	15
Baile Curraich, Dalbeattie, Farm Visit	23/2/23	Water management, manure, soil structure, worm count	25



Soil Health Group discusses water habitat management at Baile Curraich.



Soil Health Group discusses the potential of docks to support soil structure.

Biodiversity & Profitability Group

Biodiversity & Profitability Group Make-up	
Organisation	Nourish Scotland
Location	Scottish Borders
Sign-ups	12
Who signed up	17% of the group was 40 and under, 25% identified as female and 75% as male. People indicated working in the livestock and arable sectors. Land tenure included owner occupiers, tenants farmers and contractors. Group members managed / worked on land ranging from 180 Ha to 3900 Ha. 0% were new entrants.
Reasons for joining	<p>These included:</p> <p><i>“A better understanding of different practices and whether they are relevant or practical for our system.”</i></p> <p><i>“I am interested to hear the views of others in the group about the future of productive and environmentally friendly farming.”</i></p> <p><i>“Management of hedgerows. Learning about what others are doing to help the environment in a profitable business.”</i></p>

Biodiversity & Profitability Group Meet-ups

Location	Date	Topics / Speaker	Attendees
Online	19/10/22	Invitation to project	8
Peelham Farm Visit	8/11/22	Soil cover, hedgerows, soil health	8
Greenknowe Farm Visit	22/02/23	Soilmentor, soil cover	10
Coldstream Farm Visit	15/03/23	Chris Clarke & Johnny Balfour Maximum Sustainable Output	10
Online	16/03/23	Preparing presentation for in-person event	12



Counting worms and thinking about soil structure with the Biodiversity & Profitability Group.



Biodiversity & Profitability Group visit Peelham Farm, Scottish Borders Nov 2022

Webinars

Initially we planned 12 webinars but group member feedback indicated that there was more interest for an in-person meeting where they could meet members from other groups. Thus, we decided to deliver 6 webinars and one in-person event. We decided to keep track of registration numbers as numerous registrants explicitly stated that they would not attend the session live but were planning on watching the video afterwards.

Webinar 1. Agroecological Transition: reflections from recent research in Scotland ([video](#)).

Webinar Description

This webinar brings together researchers who have been investigating agroecology in Scotland in recent years.

They will share their research findings, and the implications of their research, particularly in light of upcoming agriculture policy changes.

Speakers:

Dr Alison Karley: Since 2004, Alison has been a researcher in Agroecology at the James Hutton Institute. After reading Natural Sciences at Cambridge, she studied for a DPhil in plant membrane nutrient transport at the University of York and IACR-Rothamsted. Subsequently, she has applied this training to study plant-insect interactions at scales of the organism and system. Postdoctoral research at the University of York on the nutritional physiology of aphids led to her current post.

Dr Luz-Maria Lozada: Luz Maria is a socio-economist developing interdisciplinary research based on mixed methods. She has carried out research using her knowledge on economics (BUAP-Mexico), anthropology (EHESS-France), land economy and geography (University of Aberdeen and University of Birmingham-UK) to investigate land use systems at different scales for both food production and conservation, apprehended from a decision-making perspective.

Miranda Geelhoed: Miranda's PhD explored synergies between international, EU and national environmental laws, particularly in the field of agriculture, food, land and biodiversity. Building upon previous research and her practical experiences from her day-to-day life on an arable farm on the Scottish east coast, Miranda investigated how an 'ecosystem approach' to EU legislation could help support agroecological transitions. Working alongside her PhD, Miranda has been involved in various SCELG consultancy projects for the Secretariat to the Convention on Biological Diversity, the European Commission and the Scottish Government. Miranda has also provided continuous support to SCELG's work on Brexit and was Policy and Campaigns Coordinator for the Landworkers' Alliance in Scotland. She now works for the Scottish Crofting Federation.

Nikki Yoxall: Nikki is currently undertaking a PhD exploring agroecological transitions, in particular the impact of farmer nature connectedness on decision making. Her MSc in Sustainable Food and Natural Resources had an agroecological focus, with her dissertation research investigating the enablers of agroecology as perceived by the Soil Association Farmer Ambassadors in Scotland. Nikki is Head of Research at Pasture for Life and runs a grazier business with her husband in Aberdeenshire.

Attendees / Registrations	Actions participants said they would take	What participants found useful
58 / 97	<i>"Doing more research on my farm"</i>	<i>"Hearing from different experts"</i>

	<i>“Lots of useful info! Will be rewatching”</i>	<i>“Luz Maria Lozada’s graph showing how conventional farmers tend to implement 6 agroecological practices on farm and agroecological farmers 11...shows how diverse systems are already doing the work”</i>
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Webinar 2. A perspective on the link between Biodiversity & Profitability [\(video\)](#)

Webinar Description

‘Working with nature is more profitable than substituting for it’ say Chris Clark and Brian Scanlon, come and talk with them about why they believe so.

Post World War 2, the mentality in the agricultural sector has largely been geared towards producing large quantities of food. To achieve this more inputs are needed. Yet, more inputs can often mean higher expenditure. The role of nature has often been seen as something extra rather than integral to securing profitability.

Chris and Brian believe that we need to change the way success in farming is measured. Drawing from examples, their work shows how businesses can return to naturally profitable farming to the measurable benefit of both the farm and nature. Join the conversation.

For an overview and case studies we recommend Nature Means Business: <https://www.nffn.org.uk/resources/nmb/>

Speakers

Chris Clark: Chris is a Partner in Nethergill Associates (NA), a business management consultancy currently assisting with the conjecturing and management of future farming uncertainties in all four countries within the UK as well as overseas.

He and his NA team, as of October 2022, have analysed over 150 farms . With all

these farms he has advised them how to move their business towards Maximum Sustainable Output (MSO) and hence achieve maximum profitability without compromising nature.

Previously he owned and managed Nethergill Farm with his wife Fiona in the Yorkshire Dales. They built an eco-hill farm business with a sustainable added-value meat activity, an educational and field study facility and eco-tourism holiday lets. They moved to the South West in 2020 to Exeridge Farm, Oakfordbridge, Devon, a new challenge managing beef and sheep at MSO, ancient woodland recreation, hay meadow restoration and creation of wildlife ponds.

Brian Scanlon: Over the past 20 years or so, Brian has run his own company as a vehicle to undertake consultancy and project development work where he has served over 70 companies across most sectors of the economy in the fields of strategy development, marketing, logistics, operational improvements, and new venture development. He has worked with Chris as an Associate for 20 years. He is a physicist and mathematician.

Attendees / Registrations	Actions participants said they would take	What participants found useful
58 / 76	<i>“Certainly investigating more about moving to MSO”</i>	<p><i>“I have been trying to get my head around the MSO, CVCs, PVCs but listening to other questions it all has given me a better understanding and how it all relates to the real world.”</i></p> <p><i>“Lots of information and explanations. Lots of further questions.”</i></p>

Webinar 3. Soil Food Web for Farmers ([video](#))

Webinar Description

This webinar is all about the Soil food web. What is it and how can we help to nurture it? The soil food web refers to the living part of the soil made up of insects, earthworms, and microorganisms. In this webinar we will cover:

- What is the soil food web (the poop loop)
- What is it made up of
- What damages the soil food web
- How can we repair degraded soil (dirt)
- How can we assess our soil food web
- The use of composts, teas and extracts

Colin Russell along with his wife Jill own and operate Ramstane Farm in North Ayrshire. The farm uses Holistic Management to raise pastured layers and broilers as well as a silvopasture orchard and small market garden. Colin has been studying with the Soil food web school for the past two years and is starting to apply this methodology to his own farm.

Hosted by Abi Mordin from Propagate and the SW Scotland RegenFarm Network. Abi is a market gardener operating a no dig system. She's obsessed with healthy soil.

Attendees / Registrations	Actions participants said they would take	What participants found useful
80 / 150	<p><i>“Soil biology testing rather than just pH and nutrients.”</i></p> <p><i>“Looking at my soil through a microscope</i></p> <p><i>making compost extracts and teas to make my organic matter go further!</i></p> <p><i>“Test with microscope to see if sprayer is damaging microbes”</i></p>	<p>“Informative detail into soil biology and application methods”</p> <p>“Learning about soil micro-biota ecology from a farmer's perspective. Much easier and succinct than some more scientific ones I have listened too!”</p> <p>“Info on equipment and outcomes of trials in uk so far”</p>

Webinar 4. Sustainable Poultry Feed: The potential of insect protein ([video](#))

Webinar Description

In the face of spiralling animal feed costs and the need to move away from dependence on imported soya, many farmers are looking for sustainable feed alternatives that can be produced locally or even on-farm. In this webinar we are joined by researcher Dr. Lizzie Rowe and Joe Halstead from Agrigrub to hear about the potential of farming Black Soldier Fly larvae as a natural protein source for chickens.

BSF larvae can be raised entirely on waste veg and bi-products from organic agriculture creating a sustainable solution to food waste and a viable alternative to soya. Lizzie will speak from her experience as a smallholder feeding live larvae to her flock of 50 hens, and Joe will speak about the larvae production side of the process.

Speakers:

Lizzie Rowe: is an animal welfare scientist passionate about the natural world and making the planet a better place for all the animals we share it with, wild and domestic alike. She currently works as a Research Associate in Sustainable Livestock Systems at the University of Reading, as a Project Manager at Better Origin, and as a freelance animal welfare consultant. In 2021 she started her own personal experiment to see if she could farm laying hens in a way that avoided the welfare and sustainability issues of current commercial production. www.leafandfeather.co.uk

Joe Halstead: co-founded the UK's first Black Soldier Fly larvae company, Better Origin, back in 2015, heading up the team which developed the system for growing these insects in the UK. In 2018 he and his team left to start AgriGrub, a new company focussed on large scale, agricultural BSFL production. AgriGrub is now operating a new farm in East Anglia producing 200 kg of grubs a day, and is predicted to produce 5 tonnes a day by 2024. Joe is also an advisor to two other UK BSFL companies and has helped start BSFL farms in over 50 countries around the world. Agrigrub.co.uk

Attendees / Registrations	Actions participants said they would take	What participants found useful
50 / 65	<i>"Yes! Definitely want to</i>	<i>"Everything! Sorry I can't</i>

	<p><i>look into feeding larvae”</i></p> <p><i>“Lizzy's set up looks easy to implement”</i></p>	<p><i>narrow it down, incredible, SO grateful! Being able to follow up questions from people's companies/e-mails is extremely generous and much appreciated!”</i></p> <p><i>“Discussing the set up and relevance of the information to smaller scale farmers”</i></p> <p><i>“The ideas on different business models as BSF could be used at so many production scales”</i></p>
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Webinar 5. High Nature Value Farmland- the key to a nature-rich future in Scotland? ([video](#))

Webinar Description

From Durness in the north, down the western seaboard and across to the Cairngorms, some 40% of Scotland has been identified as High Nature Value farmland. This is where low-intensity farming and crofting methods – primarily livestock production – have created a rich diversity of wildlife habitats. This puts Scotland in an enviable position and this type of farming and crofting should be viewed as a national asset and supported in the face of our global biodiversity and climate crises.

However, historically with the focus on support for intensification and production at all costs in agriculture, this has not been fully recognised. Financial support for HNV farmers and crofters has not been prioritised and the future of these livelihoods, and these habitats hangs in the balance. We have a once in a lifetime opportunity in 2023 to change this with the new Agriculture Bill in Scotland. As Davy McCracken states

‘Some of us have been highlighting this for decades whilst policy makers have paid lip

service to the HNV term but done little to support these systems effectively.'

Join HNV farming expert and campaigner Davy McCracken, crofters Domhnall McSween (Sweeney), Helen O'Keefe and farmer Ed Burrell to learn more about the significant environmental, social, cultural and landscape values these systems hold and explore how to achieve greater recognition and support within the future payment framework.

Speakers:

Davy McCracken: Davy is Head of Department of Integrated Land Management and Head of Hill & Mountain research centre at SRUC. Davy is involved in a range of research and demonstration projects investigating the economic, social and environmental resilience of upland livestock systems and seeking to understand the trade-offs associated with changes to those systems.

Helen O'Keefe: Crofter and owner of the Elphin Tearooms and co-creator of the The Green Bowl: Helen's approach to crofting presents an inspiring vision for embracing diversity in land use and how collaboratively sharing the local marketplace can unlock a prosperous rural community – where a healthy landscape underpins food production to the benefit of higher quality produce and abundant wildlife.

Domhnall MacSween: Domhnall is a Councillor for An Taobh Siar agus Nis and a full time crofter raising sheep, cattle, pigs and hens and native Gaelic speaker from the Isle of Lewis. He sells meat boxes direct to customers and creates knitting yarn, Harris Tweed and lambskin rugs from his livestock. He also presents TV programmes for BBC ALBA.

Ed Burrell: Ed and Samara farm on the Isle of Islay at Cornabus – in their words 'A vet & an ecologist learning to farm on the beautiful Isle of Islay. We rear Limousin and Hereford cross calves & Texel cross lambs in a nature-friendly way.'

Attendees / Registrations	Actions participants said they would take	What participants found useful
80 / 170	<i>"Yes, it's given me continued hope and encouragement to carry on what I've already started and I might buy collars"</i>	<i>"Experience & knowledge of active crofters and farmers. All the presenters were excellent at communicating their ideas and how they managed</i>

	<p><i>“Cooperating with neighbours.”</i></p> <p><i>“Contacting RSPB as our farm is very close to an RSPB Reserve”</i></p> <p><i>“Definitely the collars and look into funding for mobile butchery slaughter unit”</i></p>	<p><i>their land.”</i></p> <p><i>“Real farmers and crofters”</i></p> <p><i>“This has been almost completely inline with what I have been thinking great to find out I am not alone and that passionate folks”</i></p> <p><i>‘Thank you very much for a very informative and enjoyable zoom call last night all 4 speakers were great and I was often thinkin if you took the top off my head and pulled stuff oot then that’s what it would look like if you were able to sort it into a presentable form.’</i></p>
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Webinar 6. Finishing off grass ([video](#))

Webinar Description

This webinar will be about finishing off 100% pasture - covering grass management, animal health and meeting butcher requirements.

Speakers:

Speakers: Johnnie Balfour (Balbirnie Farms), Penny and Nigel Franklin (Brightlea Farm), Nick Green (Greens the Butcher)

Attendees / Registrations	Actions participants said they would take
70	<i>“Transition to pasture-fed systems”</i>

Final in-person event

What we did

The final meeting of this year's Scottish Government-funded KTIF programme Agroecology: Enabling the Transition, took place on 22 March 2023. Project participants from the six different regions as well as policymakers, came together for the first time to share experiences and explore how to support and escalate a transition to agroecology across Scotland.

During the evening the participants shared learnings from the programme, reflected on their current farming practices and had conversations around the economics of agroecology, high nature value farming and rethinking inputs; exploring why these topics were important, what could be learnt on the topic from peer-to-peer spaces, and what challenges and opportunities were associated with it.

After that, we welcomed policy makers and other organisations. Group representatives showcased each groups' work, and presented their policy asks: maintaining programmes where farmers, crofters and growers learn from and support each other; creating and supporting apprenticeship & training schemes for agroecological growers; making scheme application easy to access and user-friendly; addressing the urgent need for local abattoirs; and ensuring a closer integration between peer-to-peer groups and policymakers, potentially appointing a facilitator:

“to be part of groups like ours and shorten the line of communication between small scale producers and policy yo get our voices heard”.

The groups also invited policymakers, making specific emphasis on civil servants, to visit their operations to better understand what they do.



Biodiversity & Profitability Group presentation. Photo: Clem Sandinson



Pasture Poultry Group presentation. Photo: Clem Sandinson

Attendees

This event brought together 13 farmers, crofters and growers representing all groups apart from the Sporting Biodiversity in island-based farming and Crofting. Additionally we had members from the KTIF, FAS Connect, WWF, Food and Farming Countryside Commission, the Scottish Government Agricultural Policy Division as well as three RAI committee members.

We were unable to bring all group members due to:

- Funding restrictions making it impossible to cover participants travel and accommodation
- Calving season meaning quite a few participants had to cancel last-minute
- COVID

Even though we were not able to have representatives from each of the groups, all the facilitators were present and we also invited other farmers / crofters / growers who had been more sporadically involved.

Feedback

The event was widely regarded as a success particularly in bringing together groups that had been hearing about each other for a year but had not had a chance to meet. As noted above, each group was really diverse, so bringing these groups together allowed for even more cross-pollination and potential for collaboration. Considering what this event had allowed people to learn is necessary for a successful transition to sustainable and regenerative agriculture participants said:

“Supported conversations between farmers of similar and different scales and types”

“Peer-to-peer exchange really works”

Further, participants commended the way the event was organised to support knowledge exchange by using a mix of methods, having a relaxed and fun atmosphere and structuring it in a way that resulted in cross-group pollination.



Sharing dinner. Photo: Clem Sandison



Ariane Burgess MSP chatting with members from the Soil Health and Biodiversity & Profitability Groups. Photo: Clem Sandison.

Communications

Throughout the project we used different channels to invite people to join the project and share project learning. This included through podcasts with FAS & Farmerama, local & national media and through Instagram, Facebook, Twitter and mailing lists. Section 8 “Communications and Engagement” shows a full breakdown of what we produced.

6.2 Milestones

Date	Milestone achieved
07.07.22	Project partnership fortnightly meetings re-start
28.07.22	Farmer / crofter / grower recruitment begins & webpage launch

26.08.22	Group farm visits begin
13.08.22	Public project launch. Press release in Scottish Farmer
19.10.22	All 6 regional & topic groups set up: Pasture Poultry Feed (West Coast), Market Gardening (Central Scotland,) Supporting Biodiversity within Island-based Farming & Crofting (Isla, Jura, Gigha & Colonsay), Grazing (North East Scotland), Soil Health (South West Scotland),& Biodiversity & Profitability (Scottish Borders).
11.11.22	Webinar series begins.
07.12.22	Partnership meeting reviewing plans for final months
22.02.23	Webinar series concludes
15.03.23	Farm visits conclude
22.03.23	Final in-person event concluding project delivery
31.03.23	Final report submission

6.3 Targets

The table below shows the extent to which we met the targets proposed in the application.

Target	Progress achieved
60 farmers/crofters/growers are engaged in a regional group which meets face to face and online over a six-month period	89 farmers / crofters / growers are engaged in a regional group which meets face to face and online over a six-month period. Another 55 farmers / crofters / growers engaged more sporadically.

<p>300 farmers/crofters take part in at least one of the 12 national online learning events farmers /crofters / growers registered for the webinars.</p>	<p>In total 396 people attended our 6 national online learning events and 643 registered.</p> <p>Of these: 222 farmers / crofters attendees 354 farmers / crofters registered¹.</p> <p>174 academics local & national government, students and others attendees 289 academics local & national government, students and others registered</p> <p>We decided to use the resources to run the last 6 webinars for an end-of-project in-person event.</p>
<p>2000 farmers/crofters/others download information on the project/watch online content</p>	<p>5935 farmers/crofters/others download information on the project/watch online content</p>
<p>6 pieces about the project and the farmers/crofters involved in farming, local or national media</p>	<p>6 pieces about the project and the farmers/crofters involved in farming, local or national media</p>
<p>100,000+ social media impressions</p>	<p>118,436 social media impressions</p>

7. Lessons learned

¹ Feedback told us this was due to Zoom fatigue, the time of year, and the availability of more in-person events. Still, people who had registered but did not attend the event are contacting us to access recordings, making registrations a significant number to report on.

7.1 Issues and challenges

Importance of time

Building strong group relationships takes time. Particularly for a group to co-create a learning journey. The delay in receiving grant confirmation & permission to publicise reduced an already tight timeline to build trust & relationships between group members. When people feel trusted they are more receptive to reflection and likely to implement changes that differ from the way things have been done previously. Many group members are taking risks by trying out new things, this is a vulnerable position. Having trust within groups means that people can feel more comfortable being vulnerable with each other.

To recruit participants many one-to-one conversations were necessary. In contrast, the Soil Health Group, where participants had a stronger pre-existing bond, group members have more smoothly bought into the co-development of the learning journey. More time could allow the newly formed groups to reach this stage.

“There’s stuff going on in the whatsapp while we have the first farm visit... but this group is brand brand new”

Supporting Biodiversity within Island-based Farming and Crofting Group facilitator.

Time was also challenging in terms of holding a project during the winter due to difficult weather, shorter daylight hours and ferry cancellations.

We strongly believe that **multi-year KTIF funding** would smooth out these challenges.

Rural connectivity

Groups involving multiple island communities were more difficult to coordinate due to remoteness, inconsistency of public transport & insufficient transport links.

Barriers to participation

From the sign-up process participants indicated barriers to participation including: being unable to travel far out or at specific times during the day due to caring responsibilities, public transport options, rural connectivity, long-term illness, disabilities and lack of accessible childcare.

“Timetabled travel from Jura outside the summer months is more restricted than during the tourist season. Colonsay pretty much inaccessible unless a private charter is taken out.”

Supporting Biodiversity within Island-based Farming and Crofting Group member.

Having a budget **to reduce barriers to participation** would increase the diversity of those involved in knowledge exchange projects.

7.2 Things we would do differently

Groups can be bigger

While having a smaller number of 10-12 group members is beneficial, it has become apparent that there is space for groups to grow. If we are granted funding, in the next round we hope to have a core group of members and others who join more intermittently. This reflects concerns raised by group members that more interests need to be represented and by facilitators on the difficulty of finding common availability within a small group which can lead to unoccupied spaces in farm / croft visits. This is particularly a drawback when there are regions with higher numbers of farmers keen to dip their toes in but limited opportunities to do so.

Plan in-person event in a less busy farming season

The final in-person event was a success with participants stating how:

“It was great to meet such a diversity of folk from all over Scotland, and to hear their concerns, stories, and ideas about agroecology. There was a lot packed in. You did a fantastic job of bringing it all together.”

Soil Health Group member.

We only decided to do an in-person event bringing all groups together in December 2022. This only left January, February and March 2023 to hold this event. As we needed planning time and time to invite participants in advance we settled on March. However, this made it more difficult for livestock farmers to attend due to calving/ lambing. No members from the Grazing and Islands groups were able to attend and members from other groups were also impacted. Still, it is important to mention that the delay in receiving grant confirmation also impacted this timeframe.

Always go back to aims and objectives & 1-1 check-ins

With a couple of the groups we found that when engaging practitioners from more conventional systems, scepticism and fears of facilitators not being neutral had an impact on group dynamics. Particularly if the group is meeting once every couple of months and prior to this there was no close contact between the majority of group members. We have learned from this and will continuously go back to project aims and objectives, highlighting the necessity for change within the policy context as well as allowing more time for 1-1 check-ins with group members. This would also respond to a participant's feedback who stated the more time could have been spent on:

“Preparing people to be less defensive of their own system and agenda.”

Biodiversity & Profitability Group member.

Official launch highlighting the breadth of the project

The final in-person event showed participants clearly how they were part of something bigger, happening throughout Scotland, and with a big diversity of farmers, crofters and growers. If we could do it again, and if we are awarded funding, it would be beneficial to do an official project launch. Where we invite existing group members, other farmers, crofters and growers in our networks, policy-makers and other key players in the agricultural transition.

Linking with policy changes more explicitly

As the policy context changes, farmers, crofters and growers are being asked to manage increasing uncertainty. These groups have provided a valuable space for members to become aware, discuss, and understand policy changes. We want to formally build the bridging of policy and practice and work with these groups to provide feedback on policy changes. We have already submitted an application including this element.

In the Supporting Biodiversity within Island-based Farming and Crofting group's last meeting we hosted a session introducing the Scottish Government's National Test Programme. We asked for a show of hands of who was aware of this and no one was (including awareness of support for carbon audits and soil analysis.) We spend an hour outlining and discussing. This highlights the current issue of communication from the Scottish Government outwards and how these spaces are going to become increasingly important as we move through Agricultural Transition.

Smother start

Some of the initial group sessions occurred online or in-person in outdoor spaces, this made the start of the project a bit clunky. Next time we would invest more time in having an intentional sit-down session in a warm space. This would also allow for a more collaborative approach to the learning journey as a group member said:

“More time and pre-planning to ensure we can all make the majority of the meetings.”

Biodiversity & Profitability Group member.

7.3 Impacts - meeting the expected outcomes

Below is a breakdown with examples of how the expected outcomes were met throughout the project.

Whole farm change - for some participants, the project will help them make significant changes in their business model, whether that's reintroducing livestock to an arable system, investing in agroforestry, converting to organics, changing breed or species, or branching out into a new agroecological enterprise	
Pastured Poultry Feed Group	All the members of the group are already practising some form of pastured poultry. Because the group was focused on the challenges of sourcing feed, there was less discussion of whole farm change. There was more discussion of practical aspects of making pastured poultry systems work better, e.g. better mobile coop designs, or setting up a slaughterhouse on-farm.
Market Gardening Group	Most of the participants in this group are already on an agroecological journey, so these events were not necessarily conducive to whole farm change, as agroecological practices are already part of everyday practice for most. Still, exposure to established market gardens positively impacted the perspective of at least one participant who is in the process of exploring the most suitable option for a community led market garden on his land.

<p>Supporting Biodiversity within Island-Based Farming & Crofting Group</p>	<p>It is early days with the group for whole farm/croft changes but with some members already practising high nature value farming and crofting (supporting world important habitats for rare, endangered species like Marsh Fritillary Butterflies and Greenland White Fronted Geese) one of the focuses was on how this could be supported and maintained through the new payments framework and wider support. We have captured group and webinar feedback to feed into our policy-ask to support High Nature Value Farming which is being presented to the Scottish Government currently (see upcoming LINK briefing and work being led by RSPB.)</p> <p>This group worked with RSPB representatives based on the island.</p> <p>One interesting development was that representatives from the QMS Monitor Farm on Islay attended two of this project's farm and croft events. This led to some group members being invited to join the Monitor Farm's wider management board. The representative from RSPB, with whom this group partnered with to deliver this project, was also invited to join. Additionally they have been asked alongside NatureScot to contribute / expand on the biodiversity and conservation review within the wider Integrated Land Management Plan for the farm which is being delivered by FAS. NFFN will continue to support RSPB on the islands to build and expand this engagement with the QMS Monitor Farm Programme.</p> <p>Another development which came from our event at Ardlussa Estate on Jura is a wider discussion between the Jura community on a new venison processing small enterprise on the island. NFFN, Soil Association, Scotland's Food for Life team, and Argyll and Bute Catering Team will work to get local venison served in Jura Primary School (and potentially Jura Care Home.) Discussions are ongoing with the aim to get this in place by 2024.</p>
<p>Grazing Group</p>	<p>Learning more about Soilmentor as a monitoring tool has encouraged two members to sign up for the app, and use this to measure changes on their farm, across multiple fields as part of their transition to pastured systems. All farm businesses in the core group are reducing feed and fertiliser inputs on farm, and are using grazing management to improve efficiency. Several farms are looking into Pasture for Life and/or Organic certification</p>

<p>Soil Health Group</p>	<p>Two members of the group have subsequently embarked on additional training: Holistic Management - with a view to changing how they manage and run their enterprises. On feedback from farm walks and on the whole project, participants said:</p> <p><i>“I feel there are lots of things I would apply on a farm or enterprise scale.”</i></p> <p><i>“Every now and then people or groups of people come into your life at the right time. When I joined the Soil Health Group just about a year ago it came at the good time for me. As someone who works professionally in farming and land management, the group, and individuals within it, have stimulated my thinking, encouraged me by their examples, challenged me to keep thinking differently and expanded my mind and knowledge base, in a safe and non-judgmental environment.”</i></p>
<p>Biodiversity & Profitability Group</p>	<p>Quite a few participants from this group were inspired by the concept of Maximum Sustainable Output, where you work with the carrying capacity of your land to be the most profitable. Practically, this means that highest yield does not always translate to highest profit if the costs for inputs overrides this.</p> <p>When asked if there was a farming practice that they would like to implement as a result of being involved, a participants said <i>“Farm Business Efficiency”</i>, suggesting significant changes in their business model.</p>
<p>Webinar Feedback</p>	<p>When asked whether participants would implement any learning, people said:</p> <p>“Certainly investigating more about moving to the Maximum Sustainable Output model”</p> <p>“We would like to implement a Food Hub”</p>

New practice adoption - some participants will try a new agroecological practice to see if it works. This could be for example:

- **Cutting back or cutting out grain feed for ruminants**
- **Using no-fence technology to manage grazing better or to manage riparian habitats**
- **Adopting high welfare pastured poultry systems and developing soya-free feed for hens**
- **Undersowing and drilling into a living mulch**
- **Intercropping**

<p>Pastured Poultry Feed Group</p>	<p>Many new practices were adopted, including moving poultry more regularly onto fresh pasture.</p> <p>When responding to one thing that they would try on their farm after a farm visit, group members said:</p> <p><i>"Yes, seeing their chicken tractor designs on wheels makes me much more likely to adopt a similar design for our tractors next year."</i></p> <p><i>"Yes. Processing my own birds. Also the black fly larvae we discussed."</i></p>
<p>Market Gardening Group</p>	<p>It is too early to indicate if there will be changes in the implementation of compost or irrigation processes as a result of these visits, as many of our participants' projects are in early stages and therefore still thinking about these topics. Having said that, many expressed that seeing the way Tomanah's and Largo Estate are implementing low cost high impact systems has been in itself a motivation to revisit the way they are doing or planning to do things.</p>
<p>Supporting Biodiversity within Island-Based Farming & Crofting Group</p>	<p><i>"Yes, wader habitat creation as well as contacts to conduct a carbon audit and better understand how to fully manage for diversity rather than being too species focussed".</i></p> <p><i>'Yes, legume rich silage mixes to improve soil health, chicory to boost cattle resistance to worms.'</i></p> <p>One member of the group is currently making bokashi to aim to reduce the need of inputs- It's a method of fermenting farmyard</p>

	<p>manure rather than aerobically composting it as we would normally do and that means it retains all the carbon and therefore energy that's potentially available to soil microorganisms when you spread it on the fields. He has been sharing his learning on the WhatsApp group and hosted smaller visits for interested farmers/crofters to view progress.</p> <p>Knowledge exchange on electric fencing kit (demonstrated at Cornabus Farm) and NoFence collars (used by the RSPB farm managers & offer to host and demonstrate) has also featured in discussions.</p>
Grazing Group	Reducing grain and concentrate feeds, trying deferred grazing to extend grazing season.
Soil Health Group	<p>Group members felt inspired by the Farm Walks, Zoom calls and invited experts. Soundbites included: <i>'try, learn, adjust'</i>, <i>'Extending the grazing seasons during winter'</i>, <i>'yes, long rest periods'</i>, <i>'yes looking at winter/summer mob grazing'</i>, <i>'try regenerative grazing'</i>, <i>'Assessing biodiversity, soil types analysis'</i>, <i>'the collar/fences system might become an option when my fences deteriorate'</i></p>
Biodiversity & Profitability Group	<p>One of our farm visits focused on using Soilmentor as a way to monitor soil health. A member from the Pasture-Poultry group joined our group to introduce us to the app. The next day two of the farmers from the group were using WhatsApp to share pictures of their soil and sending their worm count.</p> <p>Another of our farm visits made group members aware of a scheme to fund hedges which they planned to look into and implement.</p>
Webinar Feedback	<p>When asked whether participants would implement any learning, people said:</p> <p><i>"Making compost extracts and teas to make my organic matter go further"</i></p> <p><i>"Applying biology and observing plant health"</i></p> <p><i>"Looking at soil through a microscope"</i></p> <p><i>"Soil biology testing rather than just pH and nutrients"</i></p>

	<p><i>“Definitely want to look into feeding larvae”</i></p> <p><i>“Definitely collars for cows and look into the funding for a mobile butchery slaughter unit”</i></p> <p><i>“Herbal leys”</i></p>
Final in-person event feedback	<p><i>“Reducing inputs further”</i></p> <p><i>“Ouwintering”</i></p> <p><i>“Tree planting”</i></p> <p><i>“Using Soilmentor”</i></p> <p><i>“Shorter grazing impact, longer rest intervals”</i></p> <p><i>“Introduced to bokashi”</i></p> <p><i>“On-farm trials”</i></p>

Reduced resistance to change - for some participants, there may be no visible signs of change: but the way the programme has been run and presented, the way they have been included, the things they’ve seen in their local paper or heard on the radio has changed their views from naw to mibbe. For other participants it will be about taking the next step to learn more.

Pastured Poultry Feed Group	<p>This was a peer group of fairly like-minded farmers/crofters who are already practising agroecological principles or on the journey. The biggest benefit of peer support in this group was for new entrants who learnt a lot from the farmers/crofters who have been using regenerative methods for longer, so there was lots of hands-on learning and skills sharing that they couldn't have gotten from anywhere else as there is no formal training available in pastured</p>
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	poultry.
Market Gardening Group	Many of the members in this group were new entrants already interested in practising agroecology, they are keen to stay involved, expanding their learning and taking their next step.
Supporting Biodiversity within Island-Based Farming & Crofting Group	<p>Similar to all farmers and crofters across Scotland all of the group was feeling the impact of rising input costs exacerbated by their location and interested in potential ways they could reduce their reliance and increase their resilience to these. The group was hugely varied in their systems and size and came into this from different perspectives and practices. This project allowed a safe space for these different perspectives to come together and be discussed in a respectful and honest way. This space did not exist previous to this (the event at Ardlussa Estate was the first visit by one of the Islay tenant farmers to Jura in the 30 plus years he had been farming there.) The experience of the RSPB farm managers and the farmer/ecologist member was hugely valuable as was the crofters/farmers already practising low input HNV farming and crofting. There was a general sense of valuing what was already on the islands in terms of supporting the farming and crofting community and the existing biodiversity and building on this.</p> <p>The links built by the project facilitators to the QMS Monitor Farm programme on Islay has also brought a greater focus on biodiversity within this programme (as outlined above.)</p> <p><i>‘Thanks for getting us involved with the project and giving us a wider view of the possibilities. We sometimes need a wee shove in the farming world re our wildlife and flora. Having been a bit unsure before your visit I think it has given us a good heads up about what we have and what is to be valued not just by us by the wider public in the future. I follow your tweets and it has led to many interesting friend and family discussions about the future farming/wildlife world. I have become involved with the monitor farm on Islay’s management board. We will include our island wildlife and flora in the farm discussions for sure.’</i></p>
Grazing Group	For this group, those that were more marginally involved and practising less or no agroecological practices, simply hearing more

	<p>about what was happening in the programme generated discussion.</p>
<p>Soil Health Group</p>	<p>Running the programme in a way that creates spaces where it feels safe to ‘not know’ and creating a sense of community has meant that participants are empowered to take their next step, wherever they might be on the journey:</p> <p><i>“For a long time I’ve been trying to include nature and biodiversity in my daily thinking. I was aware of regenerative practices, and had been doing my own version – reducing fertiliser and grazing longer swards. It’s become clear something needs to change. I stumbled across this group when looking for further reading and learning opportunities. It was gratifying to find there was more local interest, a knowledgeable and friendly group who put up with me!”</i></p>
<p>Biodiversity & Profitability Group</p>	<p>This group has a high proportion of farmers from more conventional systems. It took time to build trust and buy-in in the project. Traction with the group’s objectives increased towards the end of the project. There was quite a sudden understanding / acceptance of the group’s objectives. This required many 1-1 conversations to work towards mutual understanding of each other’s perspectives. This change in mindset from ‘naw’ to ‘mibbe’ was reflected in feedback from participants:</p> <p><i>The peer-to-peer group is “extremely important - the biggest problem with farmers is the peer-pressure against change, being part of a group of farmers discussing change is very supportive”</i></p> <p><i>“I really enjoyed being part of the group and I particularly liked the wide range of farmers in it - it made me think outside the box and I would be very keen to continue...I am normally cynical but was encouraged by the positive (mutual) support of the group”.</i></p> <p>Critically, someone who was not part of the group but part of the regional farming community was highly sceptical of the work, mentioning to group members that it should stop. Instead of ignoring this, we decided to invite them to our final meeting. They left interested in joining the group.</p>
<p>Webinar</p>	<p>“Getting to know my soil better”</p>

Feedback

“Test with microscope to see if sprayer is damaging microbes”

“Cooperating with neighbours”

“More knowledge sharing”

8. Communications & Engagement

8.1 Project material

Content	Format	Times played / Views
Agroecology: Enabling the Transition Website	Webpage	1055
Webinar: Agroecological Transition: reflections from recent research in Scotland	Video	60
Webinar: A perspective on the link between Biodiversity & Profitability .	Video	104
Webinar: Soil Food Web for Farmers	Video	172
Webinar: Sustainable Poultry Feed: The potential of insect protein	Video	68
Webinar: High Nature Value Farming	Video	260
Grass Finishing	Video	315
Agroecology: Facilitating Mindset	Video	610

Change		
Agroforestry with Roger Howison, Parkhill Farm	Video	461
Pasture fed in the Borders with Matt Griffin, Edston Farm	Video	451
NoFence Collar Technology with Domhnall Macsween, Isle of Lewis	Video	690
Regenerative grazing with Nikki Yoxall, Grampian Graziers	Video	631
Running a crofting township food hub with Helen O'Keefe and Tessa Dorrian, Elphin	Video	279
Supporting Biodiversity within Island-Based farming & crofting video (<i>just released Mon 27th March 23- still being promoted/circulated</i>)	Video	69
Agroecology: Enabling the Transition Project outline	Webpage	287
Market Gardening Group Events	Webpage	97
Agroecology: Enabling the Transition Final meeting (has just been published)	Blog	3
NFFN Project Launch	Webpage	323
Total		5935

8.2 Local and national press & radio

Title	Type	Outlet
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Shared knowledge is the 'magic ingredient' of agroecology'.	Press release	Scottish Farmer
Shorts: Agroecology - Enabling the Transition	Podcast	Farmerama
Rural Roundup 22nd February	Podcast	FAS Rural Round-Up
Rural Roundup 8th February	Podcast	FAS Rural Round-Up
Supporting farmers and crofters in the transition to agroecology	Press release	Scottish Farmer
Sustainable farming project looks for more Dumfries and Galloway members	Press release	Daily Record

We have three more podcasts booked with FAS Rural Roundup in the following months. We also have comms scheduled around our final in-person event on the 22nd of March, including a [blog](#) which has just been published.

8.3 Social Media Impressions

All organisations used their channels to promote the project. We shared updates on learning including the learning outcomes of different farm visits, our webinar recordings, agroecology videos and local / national media pieces. We reached **118,436 impressions**, exceeding the target of 100,000. Appendix B shows a breakdown of these per post. The platforms used were Instagram, Twitter, Facebook & LinkedIn.

9. Key findings & recommendations

9.1 Key findings and recommendations table

The table shows a range of key findings and associated recommendations relevant to different actors.

Key findings & recommendations for:	
Others running / facilitating knowledge exchange programmes with farmers, crofters & growers	
Finding	Recommendation
<p>1. Designing a knowledge exchange programme that allows participants to feel heard, involved in decision-making, valued and able to contribute is key for farmers, crofters and growers to implement changes in their farming systems. Giving group members spaces to showcase their work and get feedback from other group members was a key element.</p>	<p>Take time to co-design the learning journey with the people you will be working with. Use facilitation and knowledge exchange methods that allow people to get to know each other as people. Include opportunities for group members to demonstrate their own work.</p>
<p>2. Farmer-led peer-to-peer knowledge exchange groups are helpful to farmers, crofters and growers who have diverse levels of knowledge. From those who are new to agroecological practices to those who have been implementing agroecology or nature-friendly practices for a long time.</p>	<p>For vibrant knowledge exchange, create groups of mixed backgrounds, experiences and knowledge.</p>
<p>3. There are many farmers, crofters and growers out there who are keen to implement agroecological practices / learn more about them. Coming together with others on a</p>	<p>Create spaces where people can come back to, to have conversations and ask questions.</p>

similar journey can help people take their next step.	
4. It is important to practise continuous knowledge exchange across sectors and farming approaches. This can support the dismantling of misconceptions some might have of others and create new opportunities to collaborate.	Bring together people from diverse farming practices, land tenure and sectors who are unlikely to meet in their day-to-day in facilitated spaces. Take time to acknowledge the existence of misconceptions and to create spaces to build empathy between participants.
5. While small knowledge exchange groups of 10-12 people can be safe and inspiring spaces for people to learn and begin practising agroecological practices. There are not enough opportunities out there for those interested to dip their toes, making it important to extend opportunities to be involved where possible.	Build flexibility into your knowledge exchange program so that participants can join according to their needs and preferences. Having a flexible core group of people along with others who jump in and out will allow more people to become involved.
6. Focusing on specific agroecological practices and on whole-farm approaches at different stages of the learning programme can bring more people along.	Build into your programme opportunities for participants to learn specific practices that have a clear start and end point as well as opportunities for people to be invited to think more critically about the system that they are part of.
7. To bring along people who might be more sceptical about agroecological practices, more time is needed. Particularly allocating time for 1-1 check ins.	Build time for 1-1 check-ins into your knowledge exchange programme.
The Knowledge Transfer Innovation Fund	
Finding	Recommendation
8. There are many barriers to participation including travelling	The KTIF fund should allow for budget allocation to support people to participate.

costs, rural connectivity, accommodation costs and caretaking responsibilities.	This should cover travelling costs, accommodation costs, costs associated with having to bring in someone to cover for you while you attend a session, and care-taking costs.
9. 80% of small group participants who responded said they would like to continue taking part in peer-to-peer knowledge exchange groups.	The KTIF fund should consider awarding multi-year funding to better support the development of stronger groups and their continuation.
Local Governments	
Finding	Recommendation
10. Farmers, crofters and growers are keen to invite people working in local government to their holdings / the land they work on.	Attend farm, croft and market garden walks.
11. Many farmers, crofters and growers are keen to be involved in the shaping of local food systems.	Engage with these local knowledge transfer groups to support the development of local food plans.
12. Knowledge exchange programs can support farmers, crofters and growers to feel supported through periods of economic and political uncertainty while also reducing feelings of isolation.	Signpost local knowledge exchange groups for farmers, crofters and growers to join.
National Government	
Finding	Recommendation
13. Farmers, crofters and growers are keen to invite people working in the national government to their holdings / the land they work on.	MSPs should continue visiting farms, crofts and market gardens and they should bring along civil servants .

<p>14. These groups can be spaces to discuss policy changes and provide feedback to the Scottish Government, supporting the co-development of policy and a just transition.</p>	<p>Work with these groups to support the co-development of policy in Scotland.</p>
<p>15. Knowledge exchange programs can support farmers, crofters and growers to feel supported through periods of economic and political uncertainty while also reducing feelings of isolation.</p>	<p>Continue funding opportunities for the creation and continuation of crofter, farmer, grower knowledge exchange groups as a way to support participants through times of uncertainty and improve mental health conditions.</p>

9.2 Discussion & analysis of key findings & recommendations

1. Designing a knowledge exchange programme that allows participants to feel heard, involved in decision-making, valued and able to contribute is key for farmers, crofters and growers to actually implement changes in their farming systems. Giving group members spaces to showcase their work and get feedback from other group members was a key element.

From the start participants signed up via a form that asked how they would like to be contacted and what topics they were interested in exploring. Participants feedback shows how we were able to create safe and inspiring spaces. When asked what was the best thing about the project one group member responded:

“Becoming part of a kindly, wise, non-judgmental group of like-minded people”

Someone else said:

“Problem-solving collectively”

We also decided to use a variety of knowledge exchange methods: small groups, webinars, zoom calls, farm walks & WhatsApp groups for people to become involved.

The importance of this was seen in the evaluation where participants were asked to give feedback on methods and we got a mixed back of results:

“I feel strongly that WhatsApp is not the appropriate discussion forum!”

Biodiversity & Profitability Group member

"I found the whatsapp group invaluable for advice, as we have a lot still to learn"

Pasture Poultry Feed Group member

Annex A. Shows our knowledge exchange methods evaluation.

In one of the groups we had an instance where when visiting one of the group members' farms, a difficult conversation arose. As facilitators we felt we had to give attention to this at the moment. However, after getting feedback from group members we realised that we should have parked the difficult conversation for another time and ensured there was enough time for the host farmer to tell us more about their farming practices.

The importance group members having space to demonstrate their work was also seen with another group member who hosted a farm visit said:

“It's also nice to show off what you are doing, even if it's early days. You can then get feedback from others and see whether everyone thinks what you are doing is good or whether they have other ideas . It's a great opportunity”

Similarly, the Grazing Group facilitator reflected how:

“We generally have our go-to people to do the standing up and talking... and it was really lovely for someone who wasn't one of those people to have that space to share what they'd been doing and get lots of positive feedback... He was really in his element sharing what he's been doing and it was really nice to see somebody who came into

organic 5 years ago from a very conventional background, and hasn't had any opportunity to engage in any sort of knowledge exchange activity, to lead the event.... giving space to the unsung heroes'

When asked what was the best thing about the project 76% of responses referenced being part of a network, learning from others, being part of something that was farmer-led.

2. Peer-to peer knowledge exchange groups are helpful to farmers, crofters and growers who have diverse levels of knowledge. From those who are new to agroecological practices to those who have been implementing agroecology for a long time.

Having a diversity of people in terms of how familiar they were with agroecology and agroecological practices was incredibly beneficial for everyone involved. This allowed for conversations to be farmer/crofter/grower-led as people were able to respond to each other's questions. For those who had more experience, it was a valuable opportunity to compare practices with others. As some group members stated "you never stop learning". Further, it is usually people who are new to something that ask questions which others who might be submerged in the topic have not thought of.

"When you are the new one, people can look at you strangely but others might want to learn more about why you are doing things differently and might end up changing their practice!"

Pasture Poultry Feed Group Member

3. There are many farmers, crofters and growers out there who are keen to implement agroecological practices / learn more about them. Coming together with others on a similar journey can help people take their next step.

For many participants having the peer support - going to farm visits, joining webinars or dropping a message on the WhatsApp enabled them to not feel alone when implementing new practices:

"Within the group it's nice to have a space to say: "I'm trying mob-grazing"... it's hard to put yourself out there, especially early on

because you don't know if it works, so it's nice to have the WhatsApp group to share things on a small scale".

This was seen as having a space to receive encouragement, learn from others and enable you to take a next step. Similarly a webinar attendee, when asked if they were going to implement anything new after the event, responded:

"Yes, it's given me continued hope and encouragement to carry on what I've already started and I might buy collars"

4. It is important to practise continuous knowledge exchange across sectors and farming approaches. This can support the dismantling of misconceptions some might have of others and create new opportunities to collaborate.

Many farmers, crofters and growers feel like other farmers, crofters or growers have negative misconceptions about them. For our final event, participants from more conventional backgrounds said that they were pleased to have attended. Particularly, as they had initially felt weary that they would be judged by others. Specifically it gave rise to conversations about potential collaboration between members from the Pasture Poultry Feed Group who needed feed for their chickens and members from the Biodiversity & Profitability Group who were mostly arable farmers. Members from the Pasture Poultry Group said that if arable farmers:

"Ever feel like experimenting with a new crop and it didn't work out, we would be more than happy to take that from you... send it to the Pasture Poultry Group"

A participant of the last in-person event reflected that:

"We focus on each other's negatives instead of what we each do well... We could signpost customers to each other, tell them "if you are interested in carbon reduction go with X farmer...if you are interested in biodiversity and organics go to y"

Biodiversity & Profitability Group Member

This was also seen in the Supporting Biodiversity within Island-based Farming and Crofting as one of the facilitators reflected:

“It was nice to mix some large productive tenant and owner occupier farmers with working estates, crofters and RSPB Farm Managers, they do have a lot in common and allowed for greater understanding and respect in both directions.”

Considering what was the best thing about the project, one participant said:

“Seeing the variety of approaches and scale”

5. While small knowledge exchange groups of 10-12 people can be safe and inspiring spaces for people to learn and begin practising agroecology. There are not enough opportunities out there for those interested to dip their toes, making it important to extend opportunities to be involved where possible.

When we started off we envisioned every group member joining the majority of the farm visits and discussions. However, as we went on we realised that this was not going to happen due to availability and barriers to participation outlined in section 7.1 ‘Issues and challenges’. Some participants might have simply joined one of the in-person or online sessions but their contribution was just as valuable. In the Biodiversity & Profitability group, we had members who only contributed on WhatsApp. This included joining a lively discussion on comparisons of carbon measurement results.

Further, there were organisations with an already existing larger contact base who were interested in being involved more flexibly. It felt counterintuitive to turn people away who were keen to learn about more regenerative farming practices.

6. Focusing on specific agroecological practices and on whole-farm change at different stages can bring more people along

While in some of the farm visits and webinars we focused on specific practices like mob-grazing, including shelter belts, using weeds to support soil structure, on others we focused on broader whole-farm change like implementing ‘high-nature value farming’ and maximum sustainable output. This gave participants different levels at which they could engage while also exposing them to bigger possibilities of change:

“It was a great session [referring to the session on Maximum Sustainable Output]... it’s difficult to hear something so challenging. But that’s what we need, it gets you thinking”

7. To bring along people who might be more sceptical about agroecological practices, more time is needed. Particularly allocating time for 1-1 check ins

In groups where there was a greater proportion of people who were new to agroecological practices we had to spend more time on 1-1 check-ins. This allowed facilitators to clarify any questions, misunderstandings and build trust.

8. There are many barriers to participation including travelling costs, rural connectivity, accommodation costs and caretaking responsibilities.

As detailed in section 7.1 'issues and challenges', these barriers to participation impacted our programme. People who are continuously marginalised including those with caring responsibilities and those from lower-income backgrounds, are less likely to be able to engage in projects like this one. If we are serious about giving equal opportunities and diversifying the industry it is critical that we support people to take part. A participant at the final in-person event called for "paid learning" someone else asked for:

"Funding to better help farmers attend"

9. The vast majority of all group members said they would like to continue taking part in peer-to-peer knowledge exchange groups

When asked whether they would like to continue taking part in peer-to-peer knowledge exchange the 80% of all those who responded said they would like to continue. In the Market Gardening Group numbers and engagement grew with visits (as the group got to meet each other) and they would be keen to continue engaging in knowledge exchange. They would like to do so ideally through farm visits following this project's model. From the Supporting Biodiversity within Island-Based Farming and Crofting Group there is *"definite enthusiasm among the core group"*. For the Biodiversity & Profitability group, traction with the group's objectives increased towards the end of the project. There was quite a sudden understanding / acceptance of the group's objectives This required some behind the scenes work to bring together the perspectives from different farming approaches. Some group members felt like it was cut short:

"It feels like we are stopping just as we've started"

“We’ve started lots, we want more time”

Final in-person event participant

Additionally, for some groups like the Market Gardening Group, it is too soon to tell if the practices will be adopted. A longer timeframe would allow us to report on practice adoption considering if it was possible to adopt new practices or if there are any emerging challenges which could be addressed.

At our final in-person event someone asked for:

“Much more time with the groups to develop the trust necessary for long term peer-to-peer learning and time to incorporate different approaches, techniques and research”

10/ 13. Farmers, crofters and growers are keen to invite people working in local government to their holdings / the land they work on.

While farmers, crofters and growers recognise that MSPs, particularly members of the RAI Committee, take the time to go and visit there is an open invitation for this to increase. In our last cross-group in person event, it was discussed with present MSPs the importance of getting **civil servants** along to farm visits and other project events. When asked to reflect on what we need for a successful transition to sustainable and regenerative agriculture participants said:

“More people are wanting to change but need support and better communication. Must have policy makers on farm visits as mandatory”

Final in-person event attendee

11. Many farmers, crofters and growers are keen to be involved in the shaping of local food systems.

Members from all the groups saw their work as relevant in supporting the creation of more localised food systems. In our cross-group in-person event, when asked how local governments could support them in the transition to sustainable and regenerative agriculture, participants asked for:

“Food hubs and public procurement programs in schools and hospitals”

Final in-person event attendee

In the Market Gardening Group, one of the issues that kept rising between group members is how to set up Community Supported Agricultural schemes that are embedded within the community and support everyone to access fresh, healthy and local food.

In our final in-person event one participant asked for the bridging of food and agriculture:

“Healthy food for people - not just a list of regen agricultural practices”

12. Knowledge exchange programs can support farmers, crofters and growers to feel supported through periods of economic and political uncertainty while also reducing feelings of isolation.

The continued rise in input cost and instability along with changes in policy have created a climate of uncertainty and feelings of high risk for farmers, crofters and growers. This context was one of the factors that brought a range of farmers/crofters/growers into the project including those already practising agroecology and those with more conventional practices. Having the opportunity to join knowledge exchange programmes enabled participants to feel supported through this uncertainty. This also created opportunities to reduce isolation in a sector where mental health concerns are high:

“Farm visits are great you know... they’re really important to meet others... as farming can be a very isolating job”

Grazing Group Member

When asked what they considered the best thing about the project, a participant said:

“The momentum for change, it’s so good for well-being. Don’t feel so isolated.”

13. These groups can be spaces to discuss policy changes and provide feedback to the Scottish Government, supporting the co-development of policy and a just transition.

Even though discussing policy changes was not in the remit of the group, it was an inevitable discussion topic. Further, having a space to discuss this allowed more members to become aware of policy changes, ask questions and consider how changes would impact them as individuals and as a group. In the Supporting Biodiversity Within Island-Based Farming and Crofting group, this led to group members becoming aware of the National Test Programme and considering whether they could work together to apply practices from the Draft List of Measures in a wider area of land. Our last cross-group in person event brought a range of farmers from different backgrounds to share the challenges and opportunities that they saw in Scotland's Transition To Sustainable and Regenerative Agriculture with members from the Scottish Government. These groups can be a great way for the national government to fulfil its commitment to a just transition where policy is done *with* people rather than *to* people.

“Nobody really knows where they are going, nobody can find the information they need, it’s quite a blurred future. I think people are struggling to work out where they want to be, how they can get there. I think a lot of people have some great ideas but quite often the support isn’t there for them. They need to know now, the information needs to come so they are ready and they can understand what they can do and what we can do to support them”

Supporting Biodiversity within Island-based Farming and Crofting Group Member

When asked what they would like to get from upcoming knowledge exchange projects, a participant said:

“A traceable link into policy-making mechanisms”

9.3 Significance of key findings and recommendations

Scotland is currently undergoing a transition to sustainable and regenerative agriculture, committed to delivering Good Food Nation ambitions, and a Local Food Strategy. Findings and recommendations from this report are able to support all of these ambitions. They give clarity of what part of the support that farmers, crofters and growers need and want for this transition looks like in practice.

As outlined by the Cabinet Secretary for Rural Affairs and Islands, as part of a just transition, the Scottish Government remains “committed to ensuring that tenant farmers, smallholders, crofters, new entrants and land managers are given equality of opportunity

to allow them to play a key role in making our Vision for Agriculture a reality” (Scottish Government, 2022). Our project involved farmers, crofters and growers from organic, conventional and agroecological farming systems. Our knowledge exchange programme was all about supporting people in the transition to sustainable and regenerative agriculture. We did this through practical learning of sustainable and regenerative agricultural practices, but the crucial bit was building a diverse network of farmers, crofters and growers interested and keen to transition. This has enabled people to feel part of a movement. When asked what was the best thing about the project one participant said:

“Meeting people, learning from them and exchanging ideas. Above all, given hope and energy that change can happen”

The Scottish Government has highlighted how peer-to-peer support contributes to *‘nationwide cultural change [which] is critical to our success to cut emissions, enhance biodiversity and retain our world class food and drink industry’* (Scottish Government, 2022, sustainable and regenerative farming). Further, responses to the Agricultural Bill consultation underlined the need for “peer-to-peer knowledge exchange, local discussions groups and improved access to skills and development opportunities” (Scottish Government, 2022) . Our key findings and recommendations outline ways in which to do effective peer-to-peer knowledge exchange. Importantly they sit well under the Just Transition Commission's key message 3: ***Empower and invigorate our communities and strengthen local economies*** (Scottish Government, 2021), our knowledge exchange programme has been about supporting people to feel empowered to take their next step in their agroecological journey.

The importance of knowledge exchange in agroecology was highlighted in recent research. Lozada and Karley emphasised how agroecological farming is more knowledge intensive and less reliant on chemical fixes than conventional modern farming, it demands an understanding of ecological processes in farming systems and integrates the farming operation with the local community and food systems (Lozada, L M & Karley, A, 2022).

Our findings and recommendations can support a successful transition to sustainable and regenerative agriculture. They outline recommendations on implementing effective knowledge exchange programmes and outline actions for those on the ground, for fundiners, local and national governments to support scalar complementarity. More broadly, agroecology has been identified as a strong approach to increase the resiliency

of local food systems and help reach biodiversity and climate targets in Scotland (Cole *et al.*, 2021)

10. Conclusion

Our Agroecology: Enabling the Transition project created a knowledge exchange-programmer where participants feel heard, involved in decision-making, valued, able to contribute. We managed to bring together farmers, crofters and growers who were diverse in terms of expertise, sector, time farming, farming system, land tenure arrangement and size of land.

Along the journey we encountered challenges like the lengthy time needed to build trust, rural connectivity, and barriers to participation including travelling & accommodation costs and caretaking responsibilities. We learned that peer-to-peer groups can be bigger and have more flexibility in how participants engage. There are not enough opportunities out there to learn about implementing agroecological approaches, thus when possible we should not restrict what we can offer. We also learned the importance of constantly going back to aims and objectives. This is particularly important when groups are only meeting once every couple of months and the people in the group have not interacted as a group prior to this.

We managed to meet all of our targets and exceed most of them. We set up six-region and topic specific groups, delivered 6 national webinars and a cross-group in-person event. We also had active communications engagement including with the Scottish Farmer, FAS and Farmerama. The resources we created have been used over 5000 times.

Overall it is evident that there is a clear desire for these peer-to-peer groups to continue with 80% of those asked stating so. Their usefulness for farmers, crofters and growers was access to a safe non-judgmental space where they could feel inspired, safe and supported to take risks by trying new practices. When asked what was the best thing about the project 76% of responses referenced being part of a network.

The transition Scotland is facing will take a long time and a lot of work. Ultimately, change can be scary, but when we are part of supportive networks it somehow does not feel as bad. This partnership and the people involved in the project across Scotland see peer-to-peer farmer-crofter-grower-led knowledge exchange as critical for a successful transition. It is something that we cannot afford to stop doing.

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12. Annexes

Appendix A. Knowledge Exchange Methods Report

Our Agroecology: Enabling the Transition project used a variety of methods. These included:

1. **Small knowledge exchange groups:** we brought together groups of 10-12 farmers, crofters and growers to take part in a practical knowledge exchange programme on agroecological practices. Some of these groups were starting from scratch in the sense that the people involved had never interacted before as a group and others had come across each other in different settings. Our aim was to make these as group-led as possible. So that the topics covered were directed by the interests and concerns of the group members.
2. **Farm Walks & Meals:** these included half, whole day or weekend visits to farms or crofts. Typically the host would take the group around the holding and talk about the farming practices. The approach of hosts was friendly and warm, welcoming questions throughout. Thus, participants' questions would aptly shape what was talked about. As part of farm visits lunch and coffee/tea were always offered.
3. **Webinars:** these were online events where experts in the field were invited to speak about specific agroecological practices and / or whole-farm change. The majority of these were held as Zoom calls so that speakers could see participants, allowing for a more conversation-like setting. Only when numbers surpassed Zoom's capacity for a video call did we set this up in the 'webinar' mode where only speakers can see each other. Still, all the webinars included a Q&A section, moderated through the chat or by having participants ask their questions / make comments out loud.
4. **Zoom calls:** some groups opted to have Zoom conference calls as a way to catch up with their small groups. The format for these was up to each facilitator and group members to decide.
5. **WhatsApp groups:** almost all groups used created a WhatsApp group. The conversations and information shared on these was entirely group-directed.

Each facilitator conducted an evaluation of the methods their group used:

1. Small knowledge-exchange groups

Pasture Poultry Feed Group– West Coast Focus.
What worked well
Having a small group worked well for members getting to know each other and feeling comfortable asking questions both online and in-person. Overnight stay for a trip to Lismore allowed for more informal social networking and relationship building. The Group reflected that facilitation is really essential to keep the group on track, organise meetings and speakers and help maintain the focus.
What could be improved
Geographical spread of group members made it difficult to easily meet up and we didn't manage as many on-farm meetings as we hoped. We ended up having more online meetings than planned to include everyone.
Participant feedback
In the final evaluation session, multiple members of the group agreed that it was <i>"Inspiring speaking to farmers with similar experiences"</i> . When asked what members most valued about being part of the <i>group</i> : "on the ground knowledge exchange, best practice, learning from others success and failings" <i>"Sharing contacts in the industry, e.g. feed merchants"</i> <i>"networking with other producers"</i> <i>"The potential of collective purchasing power"</i> See jamboard with final discussion and evaluation
Market Gardening Group
What worked well
Virtually none of the group's participants knew each other at the beginning, but from the start the practical nature of the visits mixed with spaces for relaxed conversation around good food allowed for the development of relations across the group. There was an excellent mix of members, some just starting their journeys (be it as recently "graduated" apprentices or those who were starting market gardening projects), members with a few years' experience and others who had lots of experience running them in Scotland and elsewhere. This, in addition to experts, allowed for a wide breadth of conversations and perspectives. As the participants got to know each other better, conversations flowed better as well; as trust was built, knowledge sharing around a variety of topics (the economics of market gardening, practice, infrastructure

and costs) was deepened. Towards the end of the project, the interest in future instances like this was expressed almost unanimously.

What could be improved

All these meetings took place during low productive season; it would be interesting to have the opportunity to visit market gardens and farms when in full production to be able to experience and discuss the challenges around logistics and farm management when things are going fast.

Participant feedback

"Just a note to say thank you for another fascinating visit on Friday. We learnt a lot, it was very friendly and again the weather was kind! As always, although irrigation was the event, it was great to see another garden and even their new workshop / store looked to be very similar to an option for us!"

Supporting Biodiversity within Island-Based Farming & Crofting Group

What worked well

The majority of the group were at least acquainted with each other. This negated the need for long introductions and ice-breakers, and allowed for lots of the group to introduce and welcome new entrants or those from more remote corners. It was nice to mix some large productive tenant and owner occupier farmers with working estates, crofters and RSPB Farm Managers, they do have a lot in common and allowed for greater understanding and respect in both directions. Many of the group were shy or lacking confidence, but the smaller group dynamic helped get past that and it felt very supportive. It is definitely a case that the group felt like they were in it together and had lots in common, especially reducing costs and inputs.

What could be improved

Finding a good time in the farming calendar is very tricky, being able to recruit and run in the summer months would have been useful. With the challenges of moving between the islands, the weather and the farming calendar, we needed a group of 25 individuals to get attendance of 10-12. We had a core of 6-7 who attended every event.

Participant feedback

"The informal way it was structured allowed free conversation among individuals"
"A small peer-to-peer group like this was very useful, it made the testimony and experiences immediately relatable"
"Days like this are really important because you've got the partnership working of organisations involved in wildlife groups, local organisations and the crofters and farmers themselves. And like all of these days it's not just what's officially imparted to one and another but the networking and the little bits of information - how do you do this, how do you do that- what have you seen, what have I seen- and it is that sharing with a common goal which is incredibly

important.”

”It was lovely, it was really nice to share ideas and the chatting in between while we were walking was great because we all got to share ideas. And it's nice to show off what you are doing, even if it is early days to see if it's the right thing you are doing or whether they have other ideas. So it was a really nice opportunity to do that.”

Grazing Group

What worked well

As most of the group already knew each other, this project created more opportunities for existing engaged farmers to come together.

What could be improved

The small group aspect was quite challenging, as PFL runs a lot of farm walks and events, so limiting access was not in line with our normal way of working and I felt I had to turn people away which was frustrating. Future projects will need to have scope for widening access. In the end I opened up events as there was lots of interest.

Soil Health Group

What worked well

Members of the group got to know each other well, and have become friends through being involved in this group. For many, the group is a safe space to ask 'daft questions' and give each other feedback on various ideas.

What could be improved

We want to remain open to new members, so the main 'problem' is potentially becoming 'cliquey'.

Participant feedback

“Even though we have a diverse range within the group, e.g. from shore level to hill tops, things still have a similarity which makes one person’s results and findings more relevant and relatable. For some of us it is a lack of mains water and how to try and manage both grass AND access to water. For others it’s dealing with the sheer amount of rainfall in this area. All of it is useful and encouraging.”

Biodiversity & Profitability Group

What worked well

Most of the people had at least heard of each other. Having a small group meant that they started getting to know each other on a first-name basis as well as getting a more nuanced

understanding of each other's farming approaches. It was good having a small group when we were having complex discussions such as the one on maximum Sustainable Output. This allowed time for people to ask questions and to have a conversation with the person presenting.

What could be improved

We had a big diversity of farming approaches represented. However some group members had louder voices than others. We could have improved this by implementing more facilitation methods that would allow the more quiet members of the group to be heard.

Participant feedback

"I really enjoyed being part of the group and I particularly liked the wide range of farmers in it - it made me think outside the box and I would be very keen to continue. I am normally cynical but was encouraged by the positive (mutual) support of the group".

2. Farm walks & meals

Pasture Poultry Feed Group– West Coast Focus.

What worked well

Small group farm visits with hands-on practical demos of chicken slaughter and mobile egg tractors. Social element and time for in-depth conversation. Overnight stay on Lismore made this trip possible.

What could be improved

Limited ferry services and distance made it difficult for some members of the group to attend. Running the majority of projects over the winter was difficult in terms of ferries, weather etc. and fears around Avian flu outbreaks. Clem, who was facilitating, had Covid for the trip to Lismore and couldn't attend!

Participant feedback

"Perfect number of people to get in depth conversation going. Very generous hosting."
"It was a great couple of days with excellent hands-on experience and an opportunity to communicate with like minded people on how we can improve what we do."

Market Gardening Group

What worked well

Having the opportunity to meet in person was crucial, as this group's members did not know each other previously. Ensuring great food in each event was critical to allow for spaces of relaxed conversation, but also to highlight local produce and some of the links of market gardens to the wider value chain. Given the nature of the visits (focusing on compost, the development of a garden market and irrigation) in person visits were definitely the best way to learn: you could see, feel, touch and smell what was being discussed, be it compost or irrigation systems!

What could be improved

As the trust between farmers grew, I think it would have been better to allocate more time for more relaxed conversations to support bonding.

Participant feedback

"Just to say thank you both very much for organising and hosting another excellent, informative and inspiring visit."

Supporting Biodiversity within Island-Based Farming & Crofting Group

What worked well

We were very lucky with the weather for all three events, especially considering they were all held on Hebridean islands in late autumn or winter. Ferry cancellations or foul weather would have made it more challenging. All of the events required a one or often two night stay for the facilitator. The catering was excellent throughout, though more costly in these harder-to-reach destinations. All locations selected had a shed or indoor space for us to continue the conversation if needed, but thankfully we are able to be in the fields for 90% of it.

What could be improved

By and large the three events all went very well. Including the smaller islands in our remit (Colonsay and Gigha) is a significant logistical challenge, as well as a financial imposition on our farmers. Nevertheless we are keen to continue the programme and make sure farmers and crofters in these smaller islands are included and felt to be a part of the wider group.

Participant feedback

"Seeing other farms and management practices in the flesh is far more useful than reading it. Being able to ask questions in real time as well as perhaps thinking of questions that you wouldn't have thought of if you hadn't had the chance to view it."

Grazing Group

What worked well

Farm walks are always very popular, with lots of positive feedback. Having a focus for the walk e.g. Soilmentor use or Organic conversion helped to create structure and learning opportunities. Time for discussion and networking is always important, using lunch as a way to highlight local produce and/or produce from pastured systems adds value.

What could be improved

More time for discussion around break times was highlighted.

Participant feedback

"Comparing other systems in line with our own and seeing timesaving ideas"

"Meeting others, discussing the challenges of cattle / soil etc"

Soil Health Group

What worked well

Farm Walks are always really popular with our group. People love getting out on the farm, seeing what other people are up to and having the opportunity to see what others are up to. Meeting in person really helped to cement friendships, and we know that some members have continued to visit each other and offer support and advice outside the group. Crucially the Farm Walks were an opportunity to try out Soil Mentor in practice.

"Even though we have a diverse range within the group, e.g. from shore level to hill tops, things still have a similarity which makes one person's results and findings more relevant and relatable. For some of us it is a lack of mains water and how to try and manage both grass AND access to water. For others it's dealing with the sheer amount of rainfall in this area. All of it is useful and encouraging."

What could be improved

Finding someone up for hosting is sometimes challenging, due to farm commitments. March is impossible for example due to lambing and calving.

Participant feedback

"The group provides connections with people locally, who are looking to develop their approach and practices in regenerative farming. The farm walks and the Soil Health WhatsApp and evening Zoom calls generate free and wide ranging discussion, about soil, farming practices, environmental and climate issues, as well as supply chain and other economic considerations".

Biodiversity & Profitability Group

What worked well
This was very popular - farmers loved seeing other people's farms. It was a good way for people to get ideas of what others were doing and potentially considering doing some of the same things. It was great to have different ways to interact during the visits - walk and talk with 1-2 people, stand in the field and chat as a group, dig soil and count works, share a meal while getting to know each other better. This supported the building of trust within the group.
What could be improved
Have more clear agendas for each farm visit. Make sure that whenever we are visiting a member's farm we have enough time allocated for the person to tell us about their farming practices and to have a Q&A and feedback session with the whole group.
Participant feedback
<i>"I love seeing what other farmers are doing - and will always try to get onto a farm walk"</i>
<i>"It would be good to schedule these at the start. I am very busy and found it difficult to attend with only a few weeks notice"</i>

3. Webinars

Pasture Poultry Feed Group– West Coast Focus.
What worked well
Being able to invite expert speakers from England who had knowledge of Black Soldier Fly larvae farming was very useful to the group.
What could be improved
Ability to visit in-person
Participant feedback
"It was great to learn about Lizzy's set up, it looks possible to implement"
Market Gardening Group
N/A
Supporting Biodiversity within Island-Based Farming & Crofting Group
What worked well

The bringing of the High Nature Value topic to a wider audience. The validity of different scales and operations, everyone is a farmer regardless of scale and produce.

What could be improved

Many farmers are still not familiar or comfortable with online forums. Often takes relatively new entrants to be 'brave' enough to go in a public situation online. Those from long-standing traditional backgrounds are less likely to engage, it continues to be a challenge to get all voices represented.

Participant feedback

“Really enjoyed learning about High Nature Value Farming, the speakers were excellent, great to hear from real farmers and crofters”

Grazing Group

What worked well

Sharing research related to the topic, and a diverse range of speakers.

What could be improved

“Excellent webinar, thanks for organising!”

Soil Health Group

What worked well

Expert speakers who are enthusiastic about their subject and inspire others.

What could be improved

N/A

Participant feedback

Brilliant, inspiring, lots to learn and apply.

Biodiversity & Profitability Group

What worked well

Good for specific issues that need focussed attention. Good if you have a young family and a lot of commitments to have the choice to join a group with a webinar. Good to have a balance of online and in-person

What could be improved

Always ensure you there's time for a break. Make sure there is enough time for a conversation and Q&A.

Participant feedback

"Had enough of 'online' during covid - but it's good to have a mix of methods."

4. Zoom Calls

Pasture Poultry Feed Group– West Coast Focus.

What worked well

Zoom calls were an accessible way for us to meet as a group and share ideas. We met every 1-2 months online..

What could be improved

Attendance was patchy, with a core group of committed members but some more peripheral members who often didn't attend. It was very difficult to find a time slot that suited everyone.

Participant feedback

"Meeting up online was a good way to keep in touch, but frustrating that not all group members attended, some members seem more committed than others" "Really useful when we had guest speakers"

Market Gardening Group

N/A

Supporting Biodiversity within Island-Based Farming & Crofting Group

What worked well

Didn't use it for this group as just starting, but a request for using them in the future.

What could be improved

N/A

Participant feedback

Would like it, but prefer face-to-face

Grazing Group
N/A
Soil Health Group
What worked well
Our group is spread across Dumfries and Galloway, and South Ayrshire. The zoom calls have been a really useful 'check in' point - open to anyone to join each week to talk about current issues, ideas, challenges and opportunities. We also used the calls to have invited experts join us for a smaller group discussion, for example SallyAnn Spence on Dung Beetles. We had the calls quite late in the evening which allowed for farm jobs to get done.
What could be improved
Nothing.
Participant feedback
<i>"Invaluable way to maintain a connection and feel part of the group. Really helped group dynamics and getting to know one another. A space to talk about anything!"</i>
Biodiversity & Profitability Group
What worked well
Useful for first introductions but in-person is always better. Useful for admin. It worked better once we all go to know each other a bit more.
What could be improved
With our group it felt better to meet in-person but maybe as it develops this space will become more comfortable.
Participant feedback
<i>"It's good to meet on Zoom to keep in touch but we need to take into account rural connectivity, some participants keep cutting in and out"</i>

5. WhatsApp groups

Pasture Poultry Feed Group– West Coast Focus.

What worked well
Successful for information sharing and updates.
What could be improved
Not as active as it could have been. Many group members preferred to speak one to one with each other on the phone about specific challenges. There was a bit of a sense of "experts" and "newbies" in the group. So people often asked specific group members for advice.
Participant feedback
<i>"I found the whatsapp group invaluable for advice, as we have a lot still to learn"</i>
Market Gardening Group
What worked well
A practical space to share questions and ideas
What could be improved
Not as active, as farmers were only just getting to know each other: it will be interesting to see how the space develops through the summer.
Supporting Biodiversity within Island-Based Farming & Crofting Group
What worked well
Discussion is varied and lighthearted, with the ability to share resources very quickly an incredibly useful option for time-poor farmers and crofters. There has been knowledge exchange on the WhatsApp group about mob grazing, electric fence kit, NoFence collars, bokashi compost and herbal leys /legume rich silage mix
What could be improved
Only half of the farmers and crofters opted in to WhatsApp. A variety of reasons were offered, but it is not inclusive to everyone.
Participant feedback
<i>"The WhatsApp group is useful, a Facebook group would be an excellent resource too and likely have more information 2 "The WhatsApp group was useful and it felt like it was 'warming up' in terms of the information exchange"</i>
Grazing Group

What worked well
Members have access to the PFL forum online, and are members of MobGrazing UK and spin off groups. We use a one way announcement group to make members aware of events and opportunities
Soil Health Group
What worked well
A great way to talk about ideas and share challenges, share resources etc...
What could be improved
Not accessible to all - not everyone uses WhatsApp
Participant feedback
<p><i>"A good place to ask quick questions"</i></p> <p><i>"Endless chats about rainfall!! It was a useful place to share ideas and get to know each other better."</i></p>
Biodiversity & Profitability Group
What worked well
Worked well for the group. It was particularly useful as a way to give feedback after farm visits. After our soil mento trial participants sent pictures of them digging up their soil and counting worms. The space was also used to share carbon capture numbers and discuss the usefulness of carbon audits particularly with the absence of a universal system.
What could be improved
Some of the streams became quite long to read making it feel like you lost the information. Not all group members like to engage in this way. There were some tense moments at times and it was difficult to know what group members were making of the conversation.
Participant feedback
<p><i>"I am adamant that WhatsApp is not the way forward for discussions".</i></p> <p><i>"I found it very interesting when everyone shared their carbon numbers".</i></p> <p><i>"It was nice to see each other in-person and know that the tense atmosphere in the WhatsApp group was only an online moment".</i></p>

Appendix B. Social media impressions

Link to post	Publishing partner	Impressions
https://www.facebook.com/DGGoodFood/posts/pfbid0y4uaPH9eGnjcUfeyQ2wkXnNsi8iDuFYTviFRYhZuEyH5fX3FfcEDrF2x9GX3iHKfl	DG GoodFood (Propagate)	458
https://twitter.com/DGGoodFood/status/1598419659870437376	DG GoodFood (Propagate)	436
https://twitter.com/DGGoodFood/status/1601161723033309184	dg GoodFood (Propagate)	218
https://twitter.com/DGGoodFood/status/1581936714448515072	DG GoodFood (Propagate)	222
	DG GoodFood (Propagate)	512
https://www.facebook.com/DGGoodFood/posts/pfbid0DdDFkZYYmjvBgerGu19aHY167XfkBfq94eNwnAaLi2qoLHtSQbVa3zPo4hsHqbHGI	DG GoodFood (Propagate)	449
https://twitter.com/DGGoodFood/status/1598068831041507328	DG GoodFood (Propagate)	668
https://twitter.com/LandworkersUK/status/1599716691914592256	LWA	362
https://twitter.com/LandworkersUK/status/1592475470305841152	LWA	387
https://twitter.com/LandworkersUK/status/1618175900998336516	LWA	2,588
https://twitter.com/NFFNUK/status/1600118252000014337	NFFN	806
https://twitter.com/NFFNUK/status/1600497608920907777	NFFN	1089
https://twitter.com/NFFNUK/status/1590034675895980032	NFFN	2364
https://www.instagram.com/p/C16N-ArNKYd/?hl=en	NFFN	575
https://twitter.com/NFFNUK/status/1600783729663696896	nffn	1970
https://www.linkedin.com/feed/update/urn:li:activity:7006918929361027072	NFFN	87
https://www.facebook.com/NFFN	NFFN	402

UK/posts/pfbid0XZKoERF6AbTKTafSZZVXJ8aJU4kma5f4oBH9ptRkQBEoJGzHo4BTMsE2RZfpLz9Xl?notif_id=1670597307748149&notif_t=feedback_reaction_generic&ref=notif		
https://www.facebook.com/groups/490729444617624/permalink/1834434173580471/	NFFN	402
https://twitter.com/kirstyMTait/status/1620735990863376384	NFFN	1139
https://twitter.com/kirstyMTait/status/1632071364663287810	NFFN	1,534
https://twitter.com/NFFNUK/status/1612413204126113792	NFFN	820
https://twitter.com/kirstyMTait/status/1523579862115573761	NFFN	1619
Shared EB link	NFFN	61
https://twitter.com/NFFNUK/status/1612870386613379073	NFFN	1324
https://www.linkedin.com/feed/update/urn:li:activity:7018635114087600128	NFFN	156
https://twitter.com/kirstyMTait/status/1524645555925782530	NFFN	1468
https://www.facebook.com/NFFN/UK/posts/pfbid026vJ7qmAi9rcesvk47Mgth9WhEQe9hKwosLfkNnnepF7PXjgMsTYBfnJ13YeQAeLVI	NFFN	228
Shared Eb link	NFFN	58
https://www.instagram.com/p/CnbiGgwIIGR/?hl=en	NFFN	621
https://www.linkedin.com/feed/update/urn:li:activity:7020368535356899328	NFFN	134
Shared Scottish Farmer Article	NFFN	97
https://twitter.com/kirstyMTait/status/1626186394522554369	NFFN	119
https://twitter.com/kirstyMTait/status/1615328406832570369	NFFN	1294
https://twitter.com/NFFNUK/status	NFFN	820

/1612413204126113792		
https://twitter.com/kirstyMTait/status/1523579862115573761	NFFN	1619
Shared EB link	NFFN	61
https://twitter.com/NFFNUK/status/1612870386613379073	NFFN	1324
https://www.linkedin.com/feed/update/urn:li:activity:7018635114087600128	NFFN	156
https://twitter.com/kirstyMTait/status/152464555925782530	NFFN	1468
https://www.facebook.com/NFFNUK/posts/pfbid026vJ7qmAi9rcesyk47Mgth9WhEQe9hKwosLfkNnnepF7PXjgMsTYBfnJ13YeQAeLVI	NFFN	228
Shared Eb link	NFFN	58
https://www.instagram.com/p/CnbiGgwIIGR/?hl=en	NFFN	621
https://www.linkedin.com/feed/update/urn:li:activity:7020368535356899328	NFFN	134
Shared Scottish Farmer Article	NFFN	97
https://twitter.com/kirstyMTait/status/1626186394522554369	NFFN	119
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https://twitter.com/kirstyMTait/status/1615328410640781313	NFFN	211
https://twitter.com/NFFNUK/status/1593228113017999361	nffn	694
https://twitter.com/NFFNUK/status/1638843681225740289	NFFN	1443
https://www.instagram.com/p/CnfBO39qPI7/?hl=en	NFFN	376
https://www.facebook.com/photo?fbid=567798538697157&set=a.500551118755233	NFFN	244
https://www.linkedin.com/feed/update/urn:li:activity:7021449925263532034	NFFN	274
https://www.instagram.com/p/Cj26	NFFN	669

eoyouUR/?hl=en		
https://www.facebook.com/NFFN/UK/posts/pfbid0fSFExtraubo8bDN/SACi3Rg8KAsndShTywTkwipyk4/SY63ik9c5nEjDKyhJKozF3LWI	NFFN	647
link shared	NFFN	343
Link shared	NFFN	139
https://www.linkedin.com/feed/update/urn:li:activity:7022264541984022528	NFFN	169
https://www.facebook.com/photo?fbid=569398781870466&set=a.500551118755233	NFFN	261
https://www.instagram.com/p/CnpF8ypIS3U/?hl=en	NFFN	1086
https://www.instagram.com/p/CnrHUC1IQEG/?hl=en	NFFN	779
EB link shared	NFFN	98
https://twitter.com/NFFNUK/status/1595075288358354944	nffn	1327
https://www.facebook.com/groups/490729444617624/permalink/1864303827260172/	NFFN	176
https://www.linkedin.com/feed/update/urn:li:activity:7000833232464138240	NFFN	511
https://www.facebook.com/photo?fbid=521864829957195&set=a.500551118755233	nffn	751
https://www.instagram.com/p/CIRHyMml8Rt/?utm_source=ig_web_copy_link	nffn	653
EB link shared	nffn	193
https://twitter.com/NFFNUK/status/1617809717954285569	NFFN	2090
https://www.linkedin.com/feed/update/urn:li:activity:7002194351975997440	nffn	74
https://www.linkedin.com/feed/update/urn:li:activity:7002194351975	NFFN	92

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https://www.facebook.com/groups/490729444617624/permalink/1872049959818892/	NFFN	181
https://twitter.com/kirstyMTait/status/1519658796028776448	NFFN	1590
https://twitter.com/kirstyMTait/status/1563055979264364544	NFFN	88
https://twitter.com/kirstyMTait/status/1563055983395364864	NFFN	71
https://twitter.com/kirstyMTait/status/1597165192625856513	NFFN	509
https://twitter.com/kirstyMTait/status/1596837718780039169	NFFN	1065
EB link shared	NFFN	87
https://twitter.com/FASScot/status/1628380086465429508	NFFN	929
https://twitter.com/kirstyMTait/status/1597531305977458689	NFFN	2506
https://twitter.com/kirstyMTait/status/1597531329192919042	NFFN	266
https://twitter.com/NFFNUK/status/1619974708933410816	NFFN	3001
https://www.facebook.com/groups/490729444617624/permalink/1872104339813454/	NFFN	88
https://www.linkedin.com/feed/update/urn:li:activity:7025817188141813760	NFFN	67
https://twitter.com/NFFNUK/status/1620373850851790848	NFFN	629
Shared link	NFFN	56
EB link shared	nffn	278
https://www.linkedin.com/feed/update/urn:li:activity:7003670256233635840	nffn	134
https://twitter.com/NFFNUK/status/1638884047425527808	nffn	862
https://www.facebook.com/groups	NFFN	129

/490729444617624/permalink/1912376592452895/		
https://twitter.com/kirstyMTait/status/1620420008718356480	nffn	1352
https://twitter.com/kirstyMTait/status/1597531338667855873	NFFN	137
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Total	118,436	