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Born to be wild? Does the future of marginal farming lie in the untapped potential of Rewilding?

Written by:

James Bliss NSch

March 2025

A NUFFIELD FARMING SCHOLARSHIPS REPORT

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*"Leading positive change in agriculture.
Inspiring passion and potential in people."*

Date of report: Written November 2024,
Published March 2025

Title	Born to be wild? Does the future of marginal farming lie in the untapped potential of Rewilding?
Scholar	James Bliss
Sponsor	The Worshipful Company of Farmers with Savills
Objectives of Study Tour	<p>My main objective under my topic was investigating if there was a solution to two issues I perceived were occurring in the UK agricultural sector, in particular marginal farming. These are firstly, a huge biodiversity crisis and secondly, a farming crisis.</p> <p>Alongside these main objectives I also wanted to try and find new niche products that can be produced and made for a more natural environment and if these can be brought back to the UK.</p>
Countries Visited	Germany, Netherlands, Scotland, Denmark, Chile, Zambia, Zimbabwe and Tanzania (Pemba Island)
Messages	<p>1) For a farm business to thrive, diversification of farm income must happen.</p> <p>2) Nature focused farming can achieve both species recovery and maintain or enhance productivity.</p> <p>3) Our social pillar of overall sustainability needs greater focus for long term business security.</p>

EXECUTIVE SUMMARY

Before I applied for my Nuffield Farming Scholarship I was working in Cumbria within the Lake District National Park. During this time, I was witnessing two situations that motivated my application for a scholarship. Firstly, witnessing first-hand the decline of biodiversity across both my immediate locality and across the whole of the United Kingdom. Secondly, at the same time as a biodiversity crisis, I believe we were, and still are, entering a farming crisis especially for those who farm in marginal areas, specifically the uplands. The question I wanted to address was: 'Is there one solution to both the biodiversity and farming crisis?'

With the support of Nuffield Farming Scholarship Trust, my lead sponsors, the Worshipful Company of Farmers with Savills, along with others including Rowse Honey, I embarked on a journey that would turn out to be not only enlightening for my study but life changing personally for myself as well. With the kind support of these organisations, I was able to search for a solution to these two issues and to see if my outgoing idea of rewilding is the solution I envisioned.

For me rewilding is a term that can have a multitude of definitions, each with their own emotional response. However, from my perspective it is restoring natural processes at a landscape scale. With this definition in mind, I wanted to visit designated rewilding sites, as well as farms and businesses not 'rewilding' but who were practising non-conventional land management.

During my four months of independent travels, I visited Germany, Denmark, Scotland, Netherlands, Chile, Zambia, Zimbabwe, Kenya and Tanzania (Pemba island). These countries have varied climates, varied environments, varied cultures and varied agricultural systems. However, the commonality between them is declining biodiversity and in large parts, struggling agricultural sectors.

To give my topic greater focus, within the overall theme of rewilding, I wanted to split my attention to three fields: environmental, social and economic. While travelling to some of the most wild areas on earth within parts of Chilean Patagonia and during my African leg, it became clear that a large part of my study topic was the importance of society and social interaction. This was something I had not fully appreciated before my study travels. The importance of the social pillar of sustainability is perhaps something that is regularly overshadowed by the more regular focus on the environmental and economic pillars.

What I found across all the various countries and projects that I visited was not exactly what my preconceived ideas were. No matter if I was visiting the Patagonia National Park or the smallest farmer on Pemba Island, something was constantly appearing. Diversification was the key element for all projects that were achieving the three pillars of sustainability. Although some projects were not openly 'rewilding', they were still achieving my definition of working with natural processes. This led to product and income diversification and increased social

cohesion both on and off farm. Perhaps most excitingly this diversification was delivering environmental improvements.

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CHAPTER 1: INTRODUCTION

In 2022, when I applied for my Nuffield Farming Scholarship, I was working on one of the most amazing rewilding projects in Northern England, perhaps in the UK. At the time I was helping run the Lowther Estate and in particular their environmental work.

At the same time, I was talking to my dad about what his big regrets in life were. One of the first things he mentioned was that he did not make time to apply for a Nuffield Farming Scholarship.

During both my professional and personal life, I was noticing the situation that was happening around me in Cumbria. For the first time in my life, in the summer of 2022, I had not seen a Curlew come to breed. I also had increasing requests from animal specialists to try and restore another species on the brink, or in some cases lost, from the environment altogether. Alongside this I saw multiple farmers either closing down their business or suffering financially if they continued. This presented my idea very simply in front of me. What is the future for marginal farmed areas?

From a travel perspective I have been fortunate in my life to visit some amazing countries, but never alone and truly off the beaten track to visit projects most of which are private with no public access. Being alone in countries with different languages and cultures gave an incredible perspective on both my personal situation and my study topic.

The study tour made me realise the complexities that we face within the UK. Space is premium on our small island, something that other countries have in vast quantities. Cultures and societies are often also not considered to a high degree in the UK. It also highlighted the incredible opportunities and progress we are making. So often before my travels, I was told, you will go looking for answers but often you already have them and will be giving the answers to others. This soon became clear and gave me an increased confidence in my own knowledge.



Figure 1: Authors own. Myself On Pemba Island on a passionfruit farm



CHAPTER 2: BACKGROUND TO MY STUDY SUBJECT

Some sobering facts that provide background for my study topic:

- 16% of species within the UK are at risk of extinction
- Pollinating insects have seen a 18% decline in numbers since 1970
- Farmland birds have seen a 61% drop in their abundance since 1970s levels.

Worryingly, compounding these numbers, only 5% of our land in the UK is protected for nature recovery. All this results in the UK being in the bottom 10% of countries worldwide for biodiversity (RSPB, 2024).

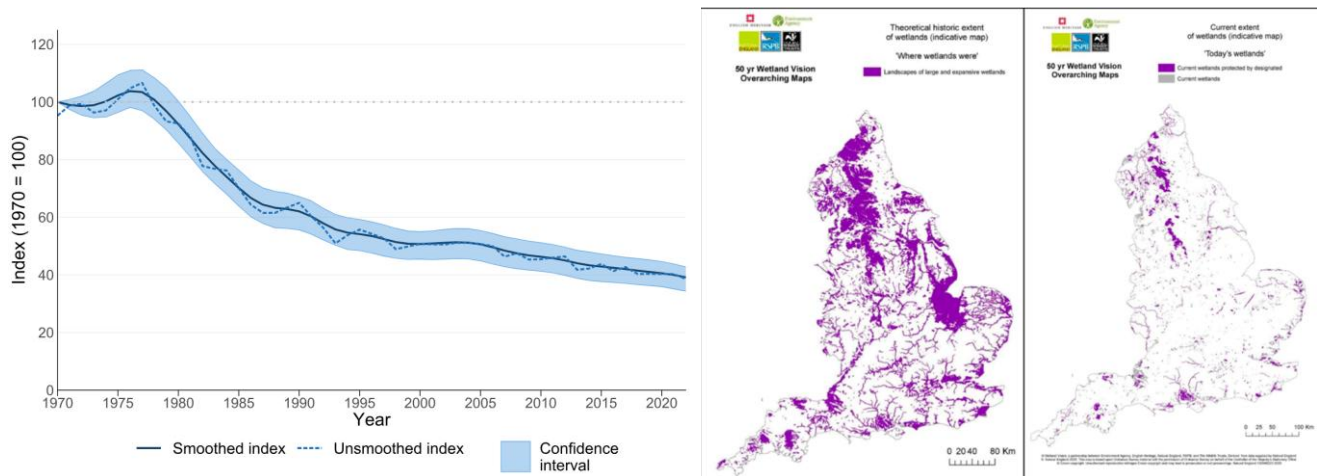


Figure 2 & 3: DEFRA, 2023 & Hume, 2008. Both showing the rapid decline in UK fauna abundance and habitat availability

In conjunction, I was personally noticing nearly one farm per year being retired from or absorbed by a larger farm. Further research highlighted to me this was not an issue distinct to Cumbria. Since 2005 there has been a loss of over a fifth of all farms (21.3%), equating to 2,840 farms per year. Interestingly, recent Defra data identifies that the most at risk farms are those under 200 hectares. This struck a chord as it is within this size bracket that the majority of marginal upland farms, the focus of my study topic, sits.

Table 2 | Numbers of commercial holdings and land areas/livestock by size group: England, June Survey, Defra, published 2016¹³

Size band	Number of holdings/hectares (thousand)				Change (+/-%)	
	2005		2015		2005-15 No of holdings change	2005-15 Area of holding change
	Holdings	Hectares	Holdings	Hectares		
Under 20 hectares	57.9	426.9	38.5	318.4	-33.5%	-25%
20 to under 50 hectares	26.3	869.5	20.5	685	-22%	-21.2%
50 to under 100 hectares	21.5	1,544.8	19.0	1,372.3	-11.6%	-11.1%
100 to under 200 hectares	16.4	2,284.2	15.2	2,131.2	-7.3%	-6.7%
200 hectares and over	10.4	4,043	11.0	4,485.0	+5.7%	+10.9%
Total	132.4	9,168.4	104.2	8,991.8	-21.3%	-1.9%

Figure 4: CPRE, 2017: Table showing the average



As a general rule, it is my understanding that most farmers and landowners want to leave their land in a better state when they pass it to the next generation than when they found it. This should be from an environmental, economic and social point of view. However, with the knowledge of these facts and also witnessing first-hand species disappearing in my lifetime, I knew change is needed. The emotion of no longer hearing a curlew call, or a lapwing dance through the sky one year really struck a chord. Along with the acceptance that farmers locally were suffering, socially and economically, it was clear a question needed to be answered.

At the same time, Lowther Estate had shifted from intensive sheep and arable production to a rewilding and nature recovery project. In turn they had seen an improvement in their economic stability and a switch from a decline in species that was unprecedented, to suddenly having red list species such as little ringed plover return and breed. All this from simply giving nature space to return.

So can my motivation for solving the crisis happening in front of our very eyes be found purely by allowing more space for nature on the farm? Is the solution to help bring farmers back into the 'green', hidden within rewilding and its nature recovery aims?



CHAPTER 3: MY STUDY TOUR

Before setting off on my individual study tour, I knew this was a once in a lifetime opportunity. For that reason and with the support of my employer at the time, I decided to maximise this learning experience.

I had three segments of my tour, firstly, a European leg that allowed me to visit projects in Germany, Denmark, Netherlands and Scotland. This was helped with the kind support of individuals and organisations such as Derek Gow Consultancy, The Large Herbivore Working Group, Rewilding Europe, The European Nature Trust and many other individuals. This gave me great insight to countries directly comparable to the UK.

After Europe I visited Chilean Patagonia, kindly hosted by Rewilding Chile, travelling along the La Ruta de los Parques. I also got to stay with other great hosts and projects along the way. It was a fascinating opportunity to see projects operating at a scale that makes some of the 'large' rewilding projects in the UK look like a drop in the ocean.

My final independent leg was to Africa for two months, covering the following countries; Zambia, Zimbabwe, Kenya and Tanzania. For this leg I owe special thanks to Rowse Honey, Tropical Forest Honey, fellow scholar Robert Davy and all the incredible hosts I met along the way. Here I was lucky enough to see some of the wildest places I have ever visited and witnessed communities striving to restore and maintain their natural environment.



CHAPTER 4: REWILDING AND OVERALL SUSTAINABILITY

So often when we think about business sustainability, we consider only economic and environmental pillars. Arguably, when I began researching my study topic, my main focus was on these two pillars. However, I realised when travelling that perhaps a greater focus is needed, to solve certainly one of my motivations, the third pillar that is social sustainability.

4.1 Marginal Farming and Economic Sustainability

It is hard for any business to look away from economic sustainability, yet arguably a lot of 'marginal' farms in the UK are not looking at this area of their business, leading to an uncertain future.

4.1.1 Impact of Cooperatives

A technique that I saw on my study tour to increase the economic sustainability of projects was by forming cooperatives. Firstly, Forest Fruits in Zambia has coordinated one of the most amazing cooperatives consisting of over 6000 beekeepers farming over 760,000 traditional bark hives, producing 1,400 tonnes of certified organic honey per year.



Figure 5&6: Author's own, Visiting Forest Fruits in Zambia harvesting Certified Organic Honey

As Christian Nawej, Managing Director of Forest Fruits, stated with this formation of cooperative they are providing around 50% of the beekeepers' annual income. He also commented that the production of the honey is completely reliant on intact natural forests in the North-West region, where the majority of the beekeepers are situated. This linkage between income revenue and intact natural environment at a large scale was apparent.

Unlike Forest Fruits where the origin of the cooperative was largely economically motivated, Friendly Wool cooperative in the Asyén region of Chile was set up with the aims of protecting native fauna and the promotion of ancestral traditions. To achieve these aims the cooperative ensures premium pricing for wool produced for the farmers who have achieved their wildlife friendly certification. The



cooperative is able to guarantee these premium prices by selling to the consumer a product with a story; namely how this wool supports a farmer who is carrying out environmentally positive practices, including using guard dogs to help prevent the hunting by large predators.

These are two examples of how small farming operations working together can reward the individual stakeholders, whilst also benefiting the environments they operate within.

4.1.2 Impact of Multiple Income Streams

Economic opportunities were also evident when a farming business created multiple diverse income streams. Many different projects highlighted the positive economic transformation of their business, when they moved away from being solely reliant on one income stream.



Figure 7&8: Author's own. Left: Community Forest Pemba Tree Nursery run by local women. Right: Buffer Farms bordering Pumalin National Park in Chile.

The creation of multiple income streams to promote economic sustainability was a large focus for the late Doug Tompkins when he started creating his vision for National Parks in Chile. In particular his focus for this was on the surrounding 'buffer farms' to Rewilding Chile's parks. On these farms Doug had set aims to change from the previous technique of slash and burn to create grazing for intensive sheep farming. In return for capital investment these farms had to set-aside thirty per cent of the land area for conservation purposes and operate a diversified farming system. The provision of fruit, veg and meat created a complex stacked farming system that supported both the farmer and the local community. What this led to was a phasing of land use from complete passive rewilding through the buffer farms into the conventionally farmed land. This phased transition is similar to what could be imagined from the high fells, into moorland and lowland farms in the areas such as the Lake District in the UK. Importantly these buffer farms created economic gains for not just the farmer but the wider community, as the wider array of produce led to the creation of local markets.



Increasing the economic resilience through diverse income streams was also a focus for Community Forest Pemba (CFP), a subsidiary of Community Forest International (CFI). CFI has an overall ambition of 'enabling communities and forests to thrive together' and for CFP a greater focus on 'ecosystem-based poverty reduction schemes'. Here visiting multiple small-scale farmers, average size 2-3 acres, the variety of products being created was vast. Their economic resilience came from multiple products being produced throughout the year.

As Mbarouk Mussa Omar, CFP's Executive Director stated, the way they can show farmers this was achievable was with the help of natural canopy cover from the native forest. Not only would this protect them from increased climate pressures, sea level rise and global warming, it would allow their product range to grow. This success led to CFP creating a nursery run by women to meet this demand for native tree saplings.

This shows that the natural environment led to a series of events from increasing the product range available to farmers, increasing the demand for native woodland and completely new job creation for a sector of society (women) historically very absent from employment.

4.1.3 Impact of Niche Markets

Another aspect of rewilding or nature focused farming is the resulting niche markets that result from unique selling points (USPs).

At Alladale Wilderness (23,000 acres) in the Scottish Highlands, which is under the ownership of Paul Lister, they have converted the holding from a traditional family sporting estate to one of the largest rewilding projects in the UK. During the time from 2003 to present day, the estate has pushed every opportunity to restore the environment, including trying to reintroduce wolves in 2018. Yet the niche market that has now been forged is health and well-being resulting from the wilderness. Alladale has tapped a high end market within the UK for visitors wanting an experience to go off grid and immerse themselves within nature.

A crucial element for Alladale Wilderness is creating food on site year round for the guests, so all food served in the lodge is produced on site, including venison from the moors. This demand is being led by what both the owner and consumers are wanting, knowledge of where their food comes from and the positive impacts it is having upon the environment. Experiences including foraging, wildlife tours, yoga, meditation, wild swimming and deer stalking have created a year round demand for a previously seasonal income that occurred during its sporting past.

Again, the link between natural environment enhancement and economic sustainability was clear through this new niche. This showed how a business saw more economic sustainability by restoring its natural environment through rewilding. The consumer base that was now being utilised was one which was much broader than the previous sporting consumer base the estate had pre-2003.



With this wider consumer base, it had delivered a stronger, more sustainable economic situation for Alladale, providing an exemplar for similar projects elsewhere in the UK.



Figure 9&10: Author's own, Left: View of Alladale Wilderness in Northern Scotland. Right: Wilder Gowbarrow moving their herd of Beef Shorthorns.

Closer to home Wilder Gowbarrow (300 acres), demonstrates how again niche markets can help support small scale farmers. Here a mixture of rewilding, natural processes and regenerative agriculture lead the way in Sam and Claire's ambition for showcasing how we can produce food whilst restoring environments. Gowbarrow has used the nature restoration project to create a strong connection to customers in a different way to Alladale, this time through direct retail of their meat. By utilising the products story and connection to nature recovery, the farm is receiving a premium compared to the general market.

Sam and Claire took this one stage further by utilising the full animal and now produce niche products made from the hide of their cattle. This has gained traction locally and nationally with high demand for their new leather products. With these niche markets, Gowbarrow has shown how the use of nature restoration storyline creates a new path for enhanced economic sustainability. This project showcased how not only creating a strong backstory behind your core product can add value, but also maximising every output from the full animal can lead to increased profit. Without the link to their land management practice, it is unlikely their product would have created the strong retail value it has.

However, an issue that faces projects like Gowbarrow is economies of scale. As a result, meeting their demand is hard. So could they see more resilience by combining their niche income streams with others. In a sense combining the economic resilience created through 'niche' markets and that shown in the previous section from the formation of 'cooperatives'.



The use of natural environments to promote products for economic gain was present not only within the rural/land sector. A gin company in Chile, Tepaluma, uses the slogan 'patagonia in a bottle' to capture people's emotive feelings towards a wild location. Their marketing emphasises the importance of the rainforest for the purity of the water they use in the distilling process. The importance of their natural environment for their product was so clear and talking to local community members, it is what made the product stand out.

Tepaluma made a decision to create a relatively new product for Chile, where average consumer gin consumption is 0.09 litres per year (compared to nearly 1 litre in the UK). Mark and Andrea saw this as an opportunity to create a market of their own and use an environmental connection that links to the emotions of visitors and locals alike. This linkage is what sets their brand above their competitors. This shows how the natural environment helped enhance the economic sustainability of a business in the rural landscape.

From the perspective of marginal farming within the UK, the use of a restored natural environment could give more marketing potential for the agricultural produce. Generally speaking, the farmers within these areas are not marketeers or salespersons. Yet, in the main, the farmers and landowners are extremely good at producing a consistent product. The examples shown so far in this section; the formation of cooperatives and niche products that promote themselves through the value added for nature, do offer a new route for marginal farmers and producers to take.

However, a key issue I often witnessed on my study tour was the reluctance of marginal farmers to collaborate, therefore limiting their access to the resulting economies of scale. Fundamentally, it requires these farmers to approach their businesses from an economic sustainability standpoint, reducing the current emphasis on lifestyle and traditions.

4.2 Marginal Farming and Environmental Sustainability

My second motivation for my study topic was environmental restoration and species recovery. I therefore focused on how projects delivered environmental benefits to the land. Of real interest to me was if these benefits were being achieved by conventional management or rewilding and natural process led management.

4.2.1 Improving Soil Health

Firstly, considering soil health, it has been shown that soil health in the UK is declining with roughly 2.9 million tonnes of topsoil being eroded annually (Fitzsimons, 2022). I visited projects at both ends of the spectrum. Some projects were farming virgin soils that have only recently been intensively cultivated. In contrast others were trying to restore degraded soils utilising varying methods.



At Borana Conservancy, Kenya, they employ True Range Ltd (TLR) to manage their rangeland ecology and specifically the domestic livestock and grasslands. TLR utilises holistic grazing principles and monitors the impacts of their system with the guidance of The Savoury Institute. Seeing TLR's work and the results being delivered for soil recovery through increased vegetation cover showed the importance of managed stock. When managing their stock they can help increase grass growth, which in turn increases root structure into the soil, allowing better infiltration rates and aeration to create functioning soils.

However, as Richie Van Aardt stated although, 'these positive impacts are short lived in this environment if not then managed into the long term'. Does this therefore question some of the rewilding principles for natural process led management. This perhaps highlights the key difference between passive and active rewilding. If a landscape is so degraded, then arguably without management the environmental impact on the soils could be worsened by passive rewilding.



Figure 11&12: Author's own, Left: View of Fundo Pangeuilemu where Holistic Grazing is practiced Right: Monitoring with True Range LTD and Savoury Institute in Northern Kenya

Holistic grazing was again being deployed near Coyhaique, Chile, on Fundo Pangeuilemu. Here mixed stocking was being utilised to help deliver soil health alongside nature recovery. Since shifting to their holistic grazing strategy, they are seeing increased organic matter levels of their soil. This in turn, has delivered greater grass growth and regeneration of vegetation, alongside positively impacting their meat production and environmental outcomes.

These examples, both of which are delivering great environmental benefits, do not directly class their management strategy as 'rewilding'. Yet, the synergies with many 'active rewilding' sites I have been to is very clear. This does therefore help to show that the overall principle of rewilding to restore natural processes within an environment can help with the productivity of that land in question.



4.2.2 Improving Water Quality

Another element to consider when looking at environmental recovery for marginal farms is water quality. 'No single stretch of river in England or Northern Ireland is in good overall health. Just 15% of English, 31% of Northern Irish and 50% of Irish river stretches reach good ecological health standards' (The Rivers Trust, 2024) .

Alladale Estate in Scotland, is a prime example of how rewilding has helped in reversing these facts. Alongside their partnership with The European Nature Trust, they are embarking on a program for the creation of 'Riverwoods'. The aim is to boost biodiversity, enhance flood protection, improve water quality, and cool the river temperature.

For Alladale this means reducing all grazing animal numbers from the riparian zones and native woodland planted alongside regeneration. They are now seeing improvements in spawning counts, water quality and habitat complexity. Here it showed how their version of rewilding is helping to bring back to life a water network in the Highlands of Scotland. Alongside the link into high value tourism, this unique project gives their consumers another immersive experience into a landscape that is being restored. Something Paul and his team believe their guests are demanding more and more.



Figure 13&14: Author's own, Left: View over a valet in Alladale Wilderness. Right: With both Gerhard Schweps and Thomas Obser in Bavaria, Germany.

Another mechanism of restoring water quality through rewilding methods is utilising a species that became absent from the UK landscape 400 years ago - the Eurasian beaver, (*castor fiber*). In Bavaria, Germany, they have had beavers present throughout this time and there is a strong correlation between the presence of beavers and the waterways being in strong to healthy conditions.

Yet conflict between beavers and farmers was also discussed by both Gerhard Schwab, the proclaimed 'beaver godfather' of Europe, and Thomas Obser, previous head of the National Farmers' Association. In intensive farming areas conflict arises through dams blocking drainage and other water features. Yet at the same time this species was thriving and helping to reduce flooding at scale, in one scenario



potentially saving over €400,000 due to the community not needing to create dams to hold back water from flooding their district.

The pressure on UK farmers to clean the waterways is something that is increasingly growing, both from the general public and authoritative bodies. Yet often conducting work on waterways is expensive and time consuming for farmers. However, if a landscape scale restoration of a species occurred, such as the eurasian beaver, then the benefits we could see to reducing nutrient spikes and soil runoff into our waterways, could be enormous.

4.2.3 Improving Biodiversity

Rewilding is something many in the environmental sector believe will deliver the greatest environmental benefits, especially in terms of biodiversity and bio-abundance recovery. One of the biggest rewilding projects on earth is within Chilean Patagonia, under the management of Rewilding Chile, an offspring of Tompkins Conservation, in particular the Patagonia National Park near Cochrane. Here over 640,000 acres has been 'passively rewilded'. The impact on biodiversity is extraordinary.

Species such as Huemul Deer (*Hippocamelus bisulcus*), Andes Condor (*Vultur gryphus*), Rheas and Pumas (*Felis concolor*) are all reaching sustainable numbers once again. This area has reached the stage now where natural grazing animals, such as huemul and Guanacos (*Lama guanicoe*) can graze but no longer cause a negative impact to the diversity of flora. The reason for this, as stated by Cristián Saucedo, Wildlife Director for Rewilding Chile, is they have the correct balance between natural predators and graziers.

Now the landscape has been 'rewilded' it functions so grazing animals are moved on naturally by the predators, which in turn allows areas of vegetation to regenerate. This showed how rewilding at a true landscape scale can restore biodiversity to a sustainable level for both flora and fauna. Previously, this Patagonian Steppe was overgrazed by a monoculture of sheep resulting in native grazing animals being reduced to extremely marginal areas. This in turn increased



Figure 15&16: Author's own, Left: View of Patagonia National Park. Right: With Cristián Saucedo Gálvez of Rewilding Chile.



their negative impact on these areas, as they became out of balance due to the persecution of natural predators such as Puma.

At a similarly large scale, 30,000 acres at Borana Conservancy, Kenya, is also seeing biodiversity increases for their target species. Here black and white rhino (*Diceros bicornis*), (*Ceratotherium simum*), Grevy Zebra, (*Equus grevyi*) and reticulated giraffe, (*Giraffa reticulata*) are all seeing huge comebacks. However, the difference between Borana and Patagonia NP is the type of management. As already mentioned, Borana has a herd of domestic cattle, managed under holistic grazing principles.

Here the management of the land is firstly to deliver 4Cs: Community, Conservation, Culture and Commerce. Michael Dyer and his team believe the best way to do this is through the management of livestock, in turn delivering their needed biodiversity improvements. This biodiversity improvement adds enhanced value to their high-end tourism enterprise. Helping to deliver 68% of revenue on the conservancy being derived from tourism, a total of \$1,023,930.

To state if either method - Borana or Rewilding Chile, has delivered more environmental benefits at a large scale would be inaccurate. It does however show that a variety of methods can be used to deliver similar outcomes for environmental sustainability and is a prime example of the difference between 'passive' and 'active' rewilding.

However, when choosing a method of restoration that could be replicated in the UK, then Borana's method of utilising domestic stock to deliver the environment for natural flora and fauna is certainly more realistic than that of the Patagonia National Park. This is due to the different pressure we have in the UK from population densities, farming diversity and also social norms for access to the countryside.



Figure 17&18: Author's own, Left: View of cattle bomas on Borana Conservancy. Right: White Rhino spotting on Borana Conservancy with Wilson (Head of Rhino monitoring).



4.3 Marginal Farming and Social Sustainability

My third and final pillar of overall sustainability is the social element. Previously, I hadn't given much thought to social sustainability, especially when my two initial motivations were formed. However, what I learned, as much through personal observation as well as meetings with project leaders, was that this pillar is crucial.

4.3.1 Maintaining the Family Farm

Firstly, looking at family engagement. We are faced with a crisis as the next generation of farmers are now leaving the farm for another career. However, for some of the projects I visited this was the opposite. In fact the balance for some projects was how to accommodate all of the next generation on the farm.

Fundo Panguilemu in Chile, was an example of engaging the younger generation into the farm. Here with the diversified income streams both Jose and Lizzie felt they were offering more opportunities for their children to build their own businesses within this landscape. Historically this was not possible when a



monoculture system prevailed, as it often resulted in farms being divided and sold upon inheritance. This was something Augusto Arre, La Junta, Chile, highlighted when he discussed the issue of inheritance and how it reduced his farm size by half so that it was no longer viable to farm. Instead, previous generations sold the land for development. Now, Augusto is diversifying his farm business to build more resilience for both himself and the next generation.

Figure 19&20: Author's own, Left & Right: View of Fundo Panguilemu with a resident volunteer Murielle visiting the wildflower meadows.

Projects that CFP supported on Pemba Island, Tanzania, were also showcasing how the creation of natural environments brought more engagement from the family compared to conventional farmed agriculture. There has been a tradition of the next generation leaving Pemba island for the main Island of Zanzibar Archipelago, Unguja. However, what has been seen since CFP have supported projects and their transition to more agro-forestry and diversified cropping, is an influx from Unguja back to the family farms on Pemba Island. Now these businesses are resilient both environmentally and economically leading to the stage where the social element can be restored at the same time.



4.3.2 Impact of Community Engagement

Secondly, community engagement is something that rewilding is shown to hugely influence. Sites using rewilding techniques are seeing a 47% increase in full time equivalent jobs and a rise in volunteers from 50 to 428 across 19 sites (Rewilding Britain, 2021).



Figure 21&22: Author's own, Left & Right: With community Forest Pemba visiting various farmers from vegetables (left image) and spice (right image).

In Bavaria, Germany, to start the transition to coexistence with beavers across the whole region, it was agreed the best way was the formation of volunteer beaver wardens. Now nearly every village or town will have a beaver warden, who is the point of contact to help deal with a situation, such as an inappropriate dam, injured animal or crop damage.

This resulted in a huge task force of people across the Bavarian region engaging in the natural recovery of the area. Now much better communication occurs between landowners and the regional lead beaver task force. Communication and solutions for issues raised are also found quicker and therefore potential conflicts reduced. Previously, issues would be 'blown out of proportion' and the conflict between beavers and people worsened. Now with the backing of local support, the communities, both rural and urban, embrace beavers in their landscape. If they do not, then a local point of call is there to help alleviate any issues.



Figure 23: With Derek Gow and Juergen Roith; Beaver Consultant and Town Mayor



Patagonia National Park, Chile, was again another example of where community engagement, employment and volunteering all saw changes upon the integration of rewilding principles. Here employment has increased since the previous sheep ranch was present. The employment has also diversified to include a wider range of jobs including front of house staff, wildlife rangers, ground maintenance and specialist researchers.

Volunteers have been integral to the project with over 750 volunteers engaging in the creation of the park. This increased employment and volunteer base has created huge engagement in this landscape scale nature restoration program. The project has also gained support locally by backing local activism, such as Patagonia Defense Counsel. This engaged the wider community and brought the two closer together.

This joined up approach of community, farmers and landowners is something that is often missed or not attempted in the UK. However, as shown by the examples above, and in particular the Patagonia Defense Council, this collaboration can bring power to projects and local communities. This greater collaboration could lead to stronger markets and more awareness of farm issues within the marginal areas of the UK landscape.



Figure 24& 25: Author's own, Left & right: View of Patagonia National Park.

Gaby Figueroa, Community Outreach Officer for Rewilding Chile, discussed the crucial element to long term success of their projects being in the next generation. As such her focus is on increasing nature recovery and environmental issues within schools surrounding their projects.

I can personally count on one hand how many farms and projects in my local area who actively engage with local schools and the next generation. But in the same breath can complain about the lack of young labour coming through. This crucial learning could help to solve one of my motivations, to secure the place of farms in our landscape into the longer term.



Figure 26 & 27: Author's own, Left: Entrance to Pumalin National Park, Right: Entrance to Patagonia National Park.

In Kenya, in particular Watamu, community engagement through commerce creation was incredible to see. As already mentioned in the previous section there is a great focus on promoting the role of women in projects and often this commerce creation is the result of environmental schemes and the involvement of women. In Watamu, EcoWorld is a project led by Steve Trott a Marine Zoologist and his team. They are concentrating on the issue of plastic pollution along the Kenyan Coast.



Figure 28 & 29: Author's own, Left & right: With Hellen Imbuhila of Eco World and at their recycling centre in Watamu, Kenya.

EcoWorld sees their future success being collaboration with the women and society's youth. The project is now aiming to recycle and recover over 100 tonnes of plastic per month that is either exported or converted into sellable products for the company to sell.

Projects like EcoWorld show how community engagement in marginal areas of the UK can not only promote economic sustainability through commerce but also create a social cohesion. Arguably, the problem of farm waste plastic is an issue that a similar model to EcoWorld could help resolve, and this would benefit the countryside environmentally, economically and socially.



CHAPTER 5: CONCLUSIONS

To summarise my conclusions from my study tour. I have six clear points across the three pillars of sustainability.

Economic:

- 1) To improve market access for marginal farms and to help achieve premium pricing, cooperatives are effective. Especially cooperatives with a USP, such as rewilding or environmental recovery, which results from the product's creation.
- 2) Diversification of income streams leads to more resilience to fluctuating markets and allows business to continue through market cycles.

Environmental:

- 1) Managed grazing and active rewilding have the capabilities of delivering greater soil recovery than passive rewilding in the short term.
- 2) The recovery of species and ecosystems can occur alongside production of consumables.

Social:

- 1) Community engagement can turn a project from farm scale to landscape scale with all the associated benefits.
- 2) Rewilding and diversification on farms can lead to more opportunities for the next generation of farmers and landowners, resulting in less social movement off farm.

'Without nature there is no food' - Mark Varney (Head of Fair to Nature)



CHAPTER 6: RECOMMENDATIONS

1. For marginal farms to have a viable future, accounting for market fluctuations, they must diversify their income streams.
2. Farmers and landowners must start considering their land management and its impact on all three pillars of sustainability.
3. An awareness of the social pillar is crucial to the longevity of a project. This must engage not only family members but the wider community to ensure projects achieve long term outcomes.
4. Rewilding is a tool and phrase that can mean such different outcomes to many. However, nearly all in the agricultural sector say their systems benefited when natural processes were restored.
5. For marginal farms to be sustainable they must start to collaborate and work in partnerships or form cooperatives. Resulting in knowledge exchange, market access and strong price points.



CHAPTER 7: AFTER MY STUDY TOUR

After returning from my Nuffield Study Tour in February 2024, I decided to leave my role on the Lowther Estate. Both during and after my travels I had a desire to take the knowledge I had gained and share it with others. So I set up my own consultancy to advise farmers and landowners on how to maximise the environment, economic and social outputs from their land. Blissfully Wild Consultancy was formed, and the consultancy has grown with projects across Cumbria currently ranging from small 60 acre farms to large scale 6,000 acre projects.

I felt this route would allow me to develop as a leader within my industry and be the best path to share my knowledge with a greater range of farmers and landowners.

I have also started to develop a plastic recycling company, called Blissfully Green. Together with Kendal Calling music festival, we have formed a partnership to take their plastic waste off site and recycle into new products to retail the following year.

Without my Nuffield Farming Scholarship this would never have occurred. But one chance meeting in Watamu, walking down the beach on Christmas Day, has opened a whole new avenue for myself. One of which, I hope long term, can offer another solution to the issue of plastic use in the UK.

blissfully  wild





CHAPTER 8: ACKNOWLEDGEMENT AND THANKS

None of these findings or overall experience would have been possible without the kind support from many different organisations and people. I would therefore like to personally thank the following:

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Secondly, the incredible hosts I met along my travels, there are too many to name individually but all opened their doors to their business and homes. They made this study tour a truly memorable experience.

Thirdly, to the incredible Nuffield Community. All the scholars along my journey from Chile to Zimbabwe really helped keep motivations high and allowed me to see some incredible projects as well. I met some incredible people and made some true friends for life, both in the UK and abroad. As well as my fantastic mentor Matthew Currie who was especially useful by planting a few seeds early in my scholarship journey.

Finally, I would not have been able to do this without the support of my incredible sponsors The Worshipful Company of Farmers with Savills. Along with Rowse Honey, they have opened my eyes to so many opportunities for UK farming. Their generous support ensured I have gained crucial insights to help our rural sector continue to thrive.



APPENDIX

Definitions:

Active rewilding:

Restoration of ecosystems and ecological processes through active human intervention, often by reintroducing missing species that provide ecological functions or introducing functional equivalents, and/or removing historical modifications such as drainage ditches.

Ecosystem engineers:

Species which significantly alter, create or destroy habitats. These species can have a large impact on the biodiversity of an area. Because of this, they play an important role in maintaining their environment. The term tends to be limited to only keystone species, because all organisms affect the area where they live, even if this effect is minor.

Keystone species:

A species which has a disproportionately large effect on its natural environment relative to its abundance or biomass. Classic examples include wolves, beavers, sea otters and elephants. Keystone species play a significant role in defining the entire ecosystem they are found in, and often create habitat for other species. Without its keystone species, an ecosystem is dramatically different or may cease to exist altogether.

Marginal Farmland:

Farmland that is not suitable for food production or is economically unfeasible to cultivate. Often associated with the upland environment within the UK.

Natural process:

Interactions among plants, animals, and the non-living components of the environment like climate or rocks. These interactions include photosynthesis, pollination, seed dispersal, grazing, decomposition and others. They are crucial for maintaining healthy ecosystems and supporting the long-term persistence of biodiversity.

Passive rewilding:

The release of ecological processes as a result of humans ceasing to use, manage, or impact ecosystems. Often associated with or considered a by-product of farmers abandoning marginal land but may be an intentional non-intervention approach to conservation. See also land abandonment and ecological rewilding.

Rewilding:



The large-scale restoration of ecosystems where nature can take care of itself. It seeks to reinstate natural processes and, where appropriate, missing species – allowing them to shape the landscape and the habitats within. Debate around the difference between restoration and rewilding is ongoing and the terms are often used interchangeably, but rewilding tends to focus on animals as agents of recovery (particularly predators and keystone species), restoring ecological processes, the 'Three Cs model' (see below) and the importance of scale.

Three Cs model:

Cores, Corridors and Carnivores' model often emphasised in rewilding approaches. The 'carnivores' refers to the importance of apex predators (often keystone species) in an ecosystem.

Wilding:

Similar to rewilding, with more emphasis on creating new, wilder ecosystems and less emphasis on past trends and patterns. Popularised by Isabella Tree's book Wilding.



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