

Institute for Public Policy Research



LESSONS LEARNED

JUST TRANSITIONS
FROM AROUND
THE WORLD

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The central aim of the commission is to present an ambitious, positive vision shaped around people's experiences and needs, and develop a plan of action that integrates policy both to address the climate and environmental emergencies and to deliver economic and social justice.

The commission's final report will be published in 2021.
Find out more at: <https://www.ippr.org/environment-and-justice>

NOTE

This briefing is presented as a submission to the IPPR Environmental Justice Commission in order to stimulate vital public debate. The arguments and the proposals made are those of the authors only. Commissioners serve in an individual capacity, and no report of or for the Commission should be taken as representing the views of the organisations with which they are affiliated.

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SUMMARY

From #BuildBackBetter and Black Lives Matter to net zero – 2020 has been characterised by calls for a better and more sustainable future. Transition narratives have dominated much of the public conversation, with Covid-19 shifting our thinking on what a good, dignified, decent life is.

This paper explores how we can better design public policy to support a rapid and fair transition to net zero and the restoration of nature. The paper first establishes a definition of a ‘just transition’ and briefly reviews the opportunities of achieving one for the UK, emphasising the need to learn from our history of poorly managed transitions.

The paper then details four case studies – from Germany, from Gothenburg, Sweden, and Pittsburgh, US, together, from Alberta, Canada, and from here in the UK – originating from a roundtable series held throughout 2020 exploring examples of just transition from around the world. The purpose of the roundtables was to learn lessons and hear insights for the UK, sharing what worked and what did not. Our analysis in this paper combines our own contextual research with the commonly held views and conclusions highlighted by participants at the original roundtables.

Overall, we establish four core learnings for the UK deriving from our four case studies:

- **Development of a positive vision:** Plans need to journey towards something positive, not just away from something negative. There must be a desirable future that feels like progress which workers, communities and the public can buy into.
- **Engagement:** Engage with the workers and communities who are affected. A just transition must be something workers and communities feel as if they have a stake in; something that is done ‘with’ and ‘by’ them rather than ‘to’ and ‘for’ them.
- **Co-design and co-production:** Governments, businesses, workers and unions, civil society and local communities need to co-design and co-produce transition plans. Coordination between stakeholders is crucial to make sure that everyone’s goals are aligned.
- **Funding isn’t everything, but it is essential:** Substantial funding is not a sufficient condition but it is necessary for a just transition. Plans, targets, engagement and collaboration are essential but will go nowhere without meaningful funding to enact them.

1. WHAT IS A JUST TRANSITION?

Pioneered in the 1970s by Oil, Chemical and Atomic Workers Union (OCAW) organiser Tony Mazzocchi (JTRC 2018), in their original form, just transition frameworks combined the environmental and social concerns of the labour movement to create accountability principles that could ensure support for workers in industries undergoing transitions. The framing has gained traction over time to inform the transitions from high- to low-carbon societies and in response to economic shocks that have led to industrial collapse (ibid).

Since then, the definition of just transition has broadened to incorporate other issues of fairness and equity. For example, the interim report of IPPR's Environmental Justice Commission included: the greater responsibility of developed countries to decarbonise in a way that supports developing countries and gives their economies more time to transition (international fairness); the importance of acting now to avoid putting a greater burden of responsibility on future generations (intergenerational fairness), and, in addition to supporting affected workers, the implementation of measures to ensure that the costs of policy responses to climate and nature crises are not disproportionately imposed on those who have the lowest footprints and are hence least responsible, for example low income households or ethnic minorities. The commission also argued for the transition to maximise the opportunities and benefits for everyone but particularly those who risk losing out.

In this paper, however, we focus on one aspect of a just transition by looking at support for workers and local communities in particular. Building on the work of the international trades union movement, this paper outlines the following eight criteria by which just transition policies should be measured with regard to workers affected and communities (ITUC 2018; JTC 2017; ILO 2015):

- **Engagement with communities** – adequate and informed consultation is integral to the establishment of common and sustainable goals. To achieve this, national and local government as well as employers undertaking just transition policies must engage with and prioritise employment from local communities and, where possible, provide training for workers in these areas.
- **Flexibility** – a recognition that there is no 'one size fits all' policy. Just transition programmes must be designed with the local conditions, economic sectors, and types and sizes of enterprises in mind.
- **Well-paid jobs** – workers should be able to expect new employment opportunities to have a salary equal to or better than their previous work.
- **Protection of workers' rights** – formal rights must be included in employment contracts, including paid sick leave, disability, maternity and paternity leave, holidays, formal complaints procedures, and access to occupational and mental health support.
- **Opportunities for training and career progression** – there must be opportunities for in-work training that provides new qualifications and greater prospects for promotion and career progression in future.
- **Job security employment** that is based on long-term or permanent employment status rather than short-term contracted work or zero-hours contracts.

- **Intersectional diversity** – a workforce that works towards an objective of being inclusive of all groups in society including diversity across gender, ethnicity and sexuality.
- **Safe-working environment** – the risk of workplace injuries should be minimised as much as possible and strict precautionary measures and protocols must be put into place when conducting any potentially dangerous work.

WHY IS A JUST TRANSITION SO IMPORTANT FOR THE UK?

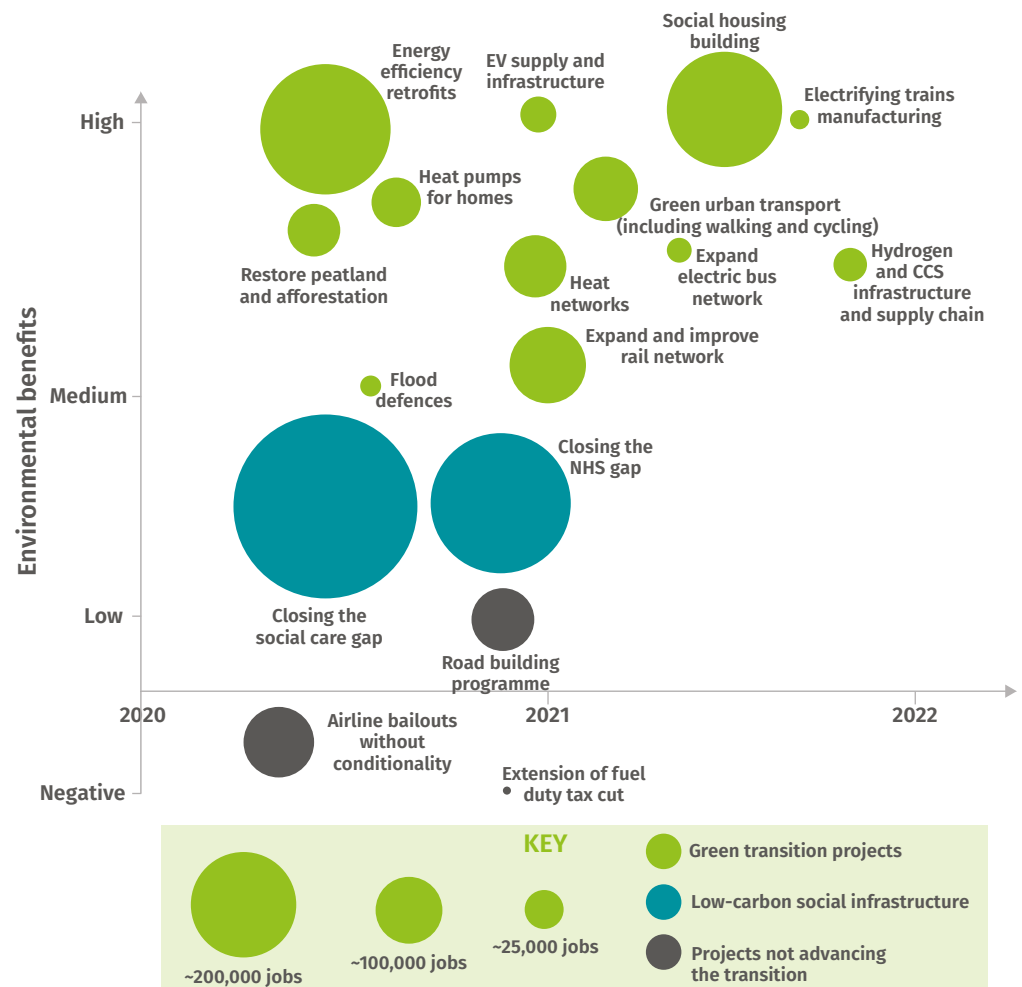
The size of the prize

If the principles of a just transition can be internalised in UK policymaking to ensure that workers and communities benefit from decarbonisation policies, the size of the opportunity is substantial. As research from IPPR has shown, in response to both the devastating economic effects of Covid-19 and the policy consequences of addressing the climate and nature crises, substantial investment in low-carbon projects (see figure 1.1) and skills and retraining programmes could create up to 1.6 million sustainable jobs over the next decade (Jung and Murphy 2020), absorbing a large proportion of workers affected.

Crucially, these opportunities are also spread across the UK, but particularly in regions with carbon-intensive industries that may be at risk from policies designed to reduce carbon emissions (ibid). Moreover, just transition not only represents an opportunity for workers affected by climate policy, it can also be a means of addressing other systemic economic challenges, such as rebalancing regional economic investment and wealth inequality (IPPR 2018; Raikes 2019), and tackling fuel poverty (IPPR 2020).

FIGURE 1.1: OVER 1.6 MILLION JOBS COULD BE CREATED THROUGH INVESTING IN LOW-CARBON PROJECTS AND PROGRAMMES OVER THE NEXT DECADE

Size of job opportunities by sector type according to their environmental benefits and timeframe for their creation. Larger bubbles indicate greater job creation potential



Source: Jung and Murphy (2020)

A poor track record

However, the UK has a poor track record of managing industrial change. Since the 1970s, there have been considerable job losses in industries such as shipbuilding, textiles and clothing, steel and coal. The absence of coherent industrial policy not only accelerated this process (Elliott 2016; Kitson and Michie 2014), it also left many skilled workers in the manufacturing sector a choice of being forced into unemployment or having to accept lower-paid work.

In the 1980s, 250,000 jobs were lost in coalfields across northern England. A combination of ill health (coal mining played a significant role in this) and job losses meant one in seven of all adults of working age in coalfield regions (North of England, South Wales, North Derbyshire, Nottinghamshire and North Staffordshire) were unemployed. With no policy in place to help these workers find new employment, many of the coalfield regions fell into deprivation – 43 per cent of all coalfield neighbourhoods are among the most deprived areas in Britain (Foden et al 2014).

Even where policies have been put in place to ameliorate the impacts of transition, their focus has often been on job quantities rather than job quality. The Dearne Valley Enterprise Zone, running from 1995 to 2005, is an example: designed to regenerate an area that had suffered from deindustrialisation, instead it created jobs with lower skills and lower wages than had previously been available (Tingle 2011).

In the next wave of industrial change, brought on by decarbonisation, it is vital that a poorly designed transition does not repeat the mistakes of the past and inflict long-lasting inequalities across the country. In fact, without a well-managed transition, and without including everyone's voices, the urgent need to decarbonise our economy will be slowed by understandable public resistance.

There are consequently many lessons that will need to be learned to ensure that the low-carbon transition required to address the climate and nature crises in the UK is justly managed (Stone and Cameron 2018). This paper aims to provide some of these lessons by offering examples from around the world and within the UK where policies have attempted to incorporate just transition principles.

2. **LIGNITE, LUSATIA AND LESSONS FOR A JUST TRANSITION**

This case study looks at the just transition policies put into place in response to a planned phaseout of coal mining in the German part of the Lusatia region, which spans the German-Polish border.

CONTEXT AND CHALLENGES

Lusatia is no stranger to industrial change. In the late 1950s, German coal mining was in crisis (DW 2007). It had become cheaper to import coal rather than buy it domestically and nuclear power plants were becoming more common. In an effort to keep mines up and running, the government paid the difference for the more expensive domestic coal, but, even with this support, it was a case of managing a decline rather than a transition. Over the next 60 years, the number of people working in coal mining fell from just over 600,000 employees to around 15,000 (EP 2018).

Now Lusatia faces another wave of industrial change. As the climate crisis intensifies, coal phaseouts have become an essential means of reducing national greenhouse gas emissions, posing a new threat to the region. The initial reaction to plans (Schwartzkopff and Schulz 2015) for a new coal phaseout were predictably and understandably hostile. In 2015, workers and regional governments who had invested in coal protested against the federal government's draft plans to close lignite plants.

POLICY ACTION TAKEN

To try and reach consensus, there has recently been much more policy focus on a just transition for Lusatia. In this context, this has meant having a debate around what a socially acceptable phaseout of coal looks like and, with it, what the policies that are specifically aimed at supporting workers should be. This includes providing financial and logistical support, and advice and help to find new, high-quality jobs, whether in new low-carbon industries or otherwise.

To this end, in 2018, the federal government launched the German Coal Commission (Agora Energiewende 2019) – comprising federal government, regional government officials, unions and industry representatives – to try and reach a compromise that balanced decarbonisation priorities with support for workers in the region. The result has been a commitment to phasing out lignite by 2038 and a significant €40 billion Just Transition Fund (Schulz 2019) that includes the Lusatia region.

Such a process – albeit one that reacted to protest rather than pre-empted it – demonstrates the power of engagement and the capacity governments have to support workers if they choose.¹

¹ The Covid-19 pandemic has shown what governments around the world can do when they have to. The challenge will be to see whether short-term bailouts can be informed by learning from transitions to enable faster, better change.

WINNERS AND LOSERS

However, questions remain over how 'just' this transition may actually be. The first is whether a coal phaseout by 2038 is compatible with national decarbonisation plans (Appunn et al 2020) to reduce greenhouse gas emissions by 55 per cent by 2030 and 95 per cent by 2050. A slower coal phaseout implies that deeper reductions in emissions will be needed in other sectors such as heating and transport; the UK experience suggests that reducing emissions in anything but the power sector has proven much more difficult. More fundamentally, while a just transition most commonly refers to support for current workers, any approach to justice and fairness must also consider the rights and livelihoods of future generations and future workers.

Secondly, it is not yet clear how the €40 billion will be distributed and what specific transitional activities it will support. For example in Cottbus, the second largest city in the Brandenburg province and a key employer in the Lusatia region, there are plans to redevelop (LEAG 2020) an old open-cast mine into a scenic lake and new urban city centre. However, it is unclear how the workers from this mine and people from the wider community may be involved in these plans. Economic development of a region may increase employment opportunities in general, but it does not specifically support those who may lose out.

Thirdly, while the money committed to a Just Transition Fund is substantial, many municipal authorities in Germany don't have the capacity to apply for the funds or procure projects with them – a similar problem is faced by many councils up and down the UK.

Finally, German trades unions representing coal workers have a strong voice but workers in new low-carbon industries do not. Most strikingly, in the last few years, more jobs – as many as 40,000 at the end of 2019 (Radowitz 2019) – have been lost in the wind industry than are due to be protected in coal. Arguably, this is due to the limited access these workers have to trades unions. As IPPR has previously written about, similar fears about access (Emden and Murphy 2019) exist in the UK.

LESSONS FOR THE UK

The just transition efforts in Germany provide key lessons the UK could learn from – not just about policy, but the critical institutional and structural conditions that have helped to produce it. Such lessons are essential to ensure that the UK does not repeat the mistakes of its own history of poorly managed industrial change.

The first thing to note is that the regional governments in Germany have far more powers to act than their UK counterparts. States in Germany have a lot more devolved power (Nicol 2014) over areas like public welfare, regional planning and, to some extent, income tax. The result is that they are more directly accountable for the local impacts of decarbonisation, thereby increasing the imperative to convene and listen to local organisers and stakeholders when developing transition plans and deciding on the future industries that will define their regions.

Second, trades unions are treated as social partners in the policymaking cycle, giving them a significant voice in transition arrangements. It is no coincidence that there are far more collective bargaining agreements (Wergin-Cheek 2012) – an effective means of securing decent pay and job quality (Dromey 2018) – in Germany than the UK. The result is that these unions have been a key part of the German Coal Commission.

Third, in no small part due to the influence of unions, the €40 billion fund is a clear demonstration that the federal government is taking just transition across Germany seriously by giving it financial heft. While the specific activities and types of support for workers are yet to be finalised, it is a clear signal that the

government views the climate crisis as a moment to invest in new opportunities. At a time when Covid-19 has meant that green investment is now both very popular (CEN 2020) and essential to the future path our economy takes as it recovers, support on this scale has become even more important.

In the UK, we are already phasing out coal such that the UK now regularly goes weeks without using any coal power. However, one of the reasons why the UK is arguably 'further along' in decarbonising its power sector is because its mining industry was already subjected to an unjust transition in the 1980s. Indeed, as the last coal power stations are now being phased out, the UK's attention will increasingly turn to the oil and gas sector, where there is a real risk that we could repeat the same mistakes.

As IPPR has previously argued, to avoid such an unjust transition, it is vital that the UK focusses on how to engage and empower local communities and ensure they have a voice and real agency in the decision-making process (Emden and Murphy 2019). As Covid-19 is forcing us to change the way we live and think about what constitutes a good life, conversations and resulting policy about our common future are ever more pertinent, making the lessons of Lusatia timely and instructive.

3.

A TALE OF TWO BURGHS: LESSONS FROM CITY TRANSITIONS IN GOTHENBURG AND PITTSBURGH

This case study looks at industrial collapse across two cities which appear very different, yet share strong similarities – Pittsburgh in the US and Gothenburg in Sweden. Names aside, the two cities are similar in that both were historically predominantly working class with a high concentration of heavy industry as the foundation of their identities.

CONTEXT AND CHALLENGES

Gothenburg, primarily known as the home of carmakers Volvo and SKF manufacturer of bearings and seals, boasted of being the world's biggest shipyard in its heyday in the 1930s and the linkages to the sea and to industry saw Sweden's second largest city build a distinctly different identity from financially affluent Stockholm. From 1979, the city suffered the same shipyard demise plaguing many industrialised countries and its once bustling shipyard was abandoned, with an estimated 45,000 job losses to the city region and nearby communities (JRF 2008). Nearby western seaside towns Uddevalla and Malmö saw similar stagnation due to these closures (Lönegård 2008).

On the other side of the world, another proudly industrial city was facing collapse. The year 1979 also saw Steel City Pittsburgh lose its steel industry. This led to an estimated loss of 133,000 jobs in the city and over 200,000 jobs regionally (Toland 2012), leading to a population drain, with roughly 30 per cent of the population leaving in the coming years (ibid). The loss of both people and industry in turn led to a debt crisis for the city, which saw a chronic downturn in revenue as well as a brain-and-skill drain as its workforce left for greener pastures.

POLICY ACTION TAKEN

The two cities employed very different coping strategies to deal with the losses caused by the collapse in industry.

Gothenburg saw a top-down approach to tackling the loss, with the state as well as Gothenburg municipality (Anders 2008) moving in to buy up the abandoned shipyard sites with a plan to regenerate them for a sustainable future. Shipyard workers found work in the still strong car industry – then SAAB as well as Volvo – which absorbed some of the losses, although other coastal cities struggled to cope as easily. An economic boom and a robust social security network also helped facilitate the transition for the workers (Lönegård 2008). The bought-up site was gradually rebuilt and repurposed to house a branch of Chalmers University of Technology and the city's identity started shifting towards a knowledge-based economy. This shift also incentivised tech companies to make a home in Gothenburg. The regeneration was managed by a municipally owned company, Norra Älvstranden AB, with a clear provision that it would stay out of municipality and party politics. The transition was

heavily steered by the municipality and built on consensus by all political parties, and was soon incorporated into a vision of Gothenburg as a green knowledge economy.

Pittsburgh, with no social security system and barely any tax revenue in place, had a less smooth transition. With no federal help coming in and dwindling coffers, locally based philanthropic foundations and university leadership stepped in with the local government to mitigate the damage of the collapse. The choice was made to invest in universities and medical centres, such as University of Pennsylvania and Carnegie Mellon, slowly shifting the identity of the city to a knowledge-based economy (Briem 2017). The city leadership worked hard to attract tech giants such as Google and Uber to invest in the city, and the transition was seen as a gradual process of collaboration across different stakeholders, rather than a centralised, planned effort. The mayoral leadership also put an emphasis on improving the environmental conditions of the city, further pushing away from the Rust Belt imagery, with emphasis on improved rivers and recreation areas in place of the industrial landscape (Dieterich-Ward 2017).

WINNERS AND LOSERS

However, getting people on board with transitions, especially ones occurring mid crisis, is not always an easy task. In Gothenburg's case, stakeholder engagement saw the opportunity of inviting people into the newly acquired site, which was previously closed off to the general public. The regenerated shipyard became a habitable urban landscape, with areas designated for flats and for parks as well as for office sites. However, less caution was taken with the job losses in the smaller cities around Gothenburg, and to the class of workers who dominated the area, who now saw themselves displaced geographically as the city core came to be dominated by new industries.

In Pittsburgh, the engagement with the general public was an even smaller consideration, as retaining jobs and building new industries became the primary focus of local leadership. This focus on attracting new industry, a primarily knowledge-based one, meant that a racialised and ruralised poverty soon became an entrenched part of the city region's geography, as hubs of growth flourished while pockets of poverty persisted in less prioritised areas. The 'greening' of city jobs in particular has meant that environmental pollution in the city has become equally segmented (Fussell 2017).

LESSONS FOR THE UK

Learning from the examples of Gothenburg and Pittsburgh suggests that local leadership must carefully and strategically manage existing assets (such as land and building stock) and networks (including unions, civil society and communities) in order to absorb shocks of the kind these two cities faced. Citizen and stakeholder engagement is crucial to ensuring a successful transition, minimising the negative impacts as far as possible and maximising any opportunities. In this example, the engagement and empowerment of citizens and communities left much to be desired, but in the case of Gothenburg, the robust existing social security network in place enabled a faster and likely fairer transition than in Pittsburgh.

4.

FOSSIL FUELS TRANSITIONS IN ALBERTA, CANADA

This case study focusses on the ups and downs of the transition in train in Alberta – Canada’s Energy Province, endowed with a combination of natural gas, coal, minerals, conventional oil and the famous oil sands or tar sands.

CONTEXT AND CHALLENGES

In the 1970s, the region experienced what was seen as a ‘modern-day gold rush’ as the worldwide oil crisis resulted in investment in the region and it fast became an economic hub, with its population growing by a third during the decade and transforming the sleepy cities of Edmonton and Calgary into thriving urban centres (CBC 2001). While the boom gradually slowed in the years to come, Alberta still boasts a young, skilled labour force and acts as an important hub for both development and employment for the wider country (Keller and Parkinson 2019).

POLICY ACTION TAKEN

In 2015, a New Democratic Party (NDP) government was voted into power in Alberta, scoring an unexpected and unprecedented win against Conservative incumbents. The new government had ambitious ideas to push forward a just transition. The government came in with a platform to decarbonise an ageing and expensive coal sector – a process which had in fact begun before their electoral win, given the wider failings in this sector. The deadline of 2030 was seen as visionary and was subsequently taken up by other states. The government set up different community and worker funds to do this.

In addition, the workers in the tar sands oil fields of Alberta were determined to play a part in creating a positive future for themselves and their families. The worker-led Iron & Earth initiative has developed a four-pillar approach of collaboration, vision, training and advocacy. This involves:

- building community for workers and supporters
- developing renewable energy careers
- building support for a prosperous transition
- building demonstration projects.

The initiative develops chapters, works with them to support transition policies, develops projects and programmes for upskilling, and seeks to retrofit, repurpose and reutilise fossil fuel-generating facilities as green energy facilities wherever possible (Iron & Earth 2020).

WINNERS AND LOSERS

Getting workers to shift their attention to the need for and upsides of a just transition was not easy; the initial reaction of unions and workers was to fight to maintain existing jobs. Without a clear narrative on the way ahead, this was found to be difficult to counter. It took two years to bring anyone to Alberta from central government and two years to announce a transition plan. In 2017, the Alberta Federation of Labour set up a Coal Transition Coalition to bring together and listen

to worker and union voices, show that new jobs would outnumber the old ones and take on concerns raised by members to government (AFL 2017). However, this was not without its challenges. For example, it required weighing the attraction of an old, unionised job against a new, likely less skilled and more precarious minimum wage job. In addition, the big lesson was that the government failed to recognise that business interests and worker interests were not necessarily aligned. Once the companies received their pay-out from government, the unions and workers lost their leverage in any negotiation or planning.

Initial transition efforts in Alberta and elsewhere focussed heavily on male workers and white communities. But successful transitions benefit from a whole community approach: the workers, the partners, the families and wider communities need a seat at the table. Many fossil fuel workers are now First Nations Canadians, with a different history tainted by environmental injustice and colonial violence.

These workers have a differing outlook of entitlement to the wealth of the land alongside an ancestral duty to also protect it, leading to tension within and between different communities vying to break cycles of poverty and neglect. Transitions including First Nations have been historically difficult in Canada, and inter- and intra-community tensions have often been exacerbated by poor consultation efforts and wider systemic marginalisation.

In 2019, the NDP lost the election, signalling a return to a Conservative government without the same commitment to transitioning away from fossil fuels. Although much of the work was already in place, and is still going ahead, the change highlights the variance between transition, which can take decades to mature, whereas electoral timelines march to a four-year tune. Social acceptance and movements take time to build. For example, students from over 30 institutions in Canada are calling on over 90 universities and colleges to divest from fossil fuels, but only three have done so to date (Exchange 2020). Experience from the UK suggests that it takes some time to reach a tipping point – for example, it has taken eight years of a UK-wide campaign for divestment for over half of universities and colleges to have done so or to commit to doing so soon (Students Organising for Sustainability 2020).

LESSONS FOR THE UK

Transition needs more than political will with a proactive government and a pay-out for companies. It needs to journey towards something positive, not just away from something negative. Lessons from this paper, as well as previous research, have found that there is a need to get a broad cross-section of key stakeholders on board, to harness their insights and preferences, and to sustain the shift in narrative on what is possible and desirable (Stone and Cameron 2018).

It is not inevitable that workers and their families and communities suffer as fossil fuels are phased out worldwide. Change is continuous – just as we no longer rely on horse-drawn carts to get around, we will not continue to rely on oil and coal for power as we shift to clean, cheaper and more abundant energy resources. In the 36 years since the FTSE list of top 100 companies was formed, just 28 companies remain listed on the index (Brett 2017).

If communities seek and participate in low-carbon transitions, they can become better placed to influence and inform the change. In this instance, many skills are transferable: electricians and engineers are needed for the clean energy sector. Renewable energy has already created thousands of jobs in Canada and has the potential to create many more. Alberta now ranks second in installed wind capacity in Canada and this sector is growing (EnergyIQ 2015). A direct transfer of the skills garnered in pollution industries over to green industries could be

streamlined to enable Canada to rapidly diversify its energy sector, while reducing dependence on oil sands as a source of revenue and jobs.

Learning from this Alberta example suggests understanding the power of incumbency, the role of companies, and the important role that workers and communities need to play. Disruptions and challenges of the kind that Alberta and its citizens have faced are difficult: whether First Nations, older male workers, women or wider communities. Worker and citizen engagement and participation can change the dial to enable better, faster transitions that focus on reaching consensus over what is possible rather than being held up by points of disagreement. In this example, errors and delays initially hindered the process, the role of First Nations Canadians was eventually included and worker-led initiatives like Iron & Earth continue to shine a light on the path ahead.

5.

REDEFINING VALUE IN AGRICULTURE: THE NATURE FRIENDLY FARMING NETWORK, FORDHALL FARM AND ORGANIC FARMING IN DENMARK

This case study looks at three examples – two in the UK and one in Denmark – of agricultural practices that have been put in place which, if combined and scaled up, could support farmers and communities to reduce emissions from agriculture fairly.

CONTEXT AND CHALLENGES

Agriculture in the UK represents around 10 per cent of greenhouse gas emissions, including just under half of all methane emissions (HoP 2019). At the same time, many current farming trends (such as increasing fertiliser use and intensification of farming) are thought to be contributing to severe environmental damage, including soil degradation and loss of biodiversity. These challenges put agriculture at the front and centre of policies aimed at tackling the climate and nature crisis.

Furthermore, a just transition for workers in farming is also a massive opportunity to address underlying inequalities within the sector at the same time. As it stands, agriculture in the UK is one of the most important yet paradoxically least valued industries in the UK. Based on current practices and policies, everyone is losing out: the farmer, the consumer, the community and the environment.

The first major challenge is that supermarkets and, by extension, farmers are under pressure to keep food prices cheap and affordable for all. The effect is that while this may benefit the consumer financially, farmers' profit margins are squeezed and focussed on short-term profitability over environmentally sustainable practices that are assumed (wrongly and in part through lack of awareness) to decrease productivity. The pressure to keep food prices low also means that subsidies from the Common Agricultural Policy framework are disproportionately skewed towards mega-farms that can achieve economies of scale (Debating Europe 2020), while, from a consumer perspective, the quality of the food itself is negatively affected, as organic products are often mistakenly viewed as a luxury item rather than a key component to more healthy living.

The second major challenge that exacerbates this short-termism is that land-owners who lease land to farmers frequently do so at high rents and on short-term contracts. This works for the land-owner because while the land is a farm it is also a potential development site and therefore accrues value over time. It has also been suggested that subsidies further push up land value, meaning that short-term contracts expose farmers to increasing rents (OECD 2008).

The effect on farmers is that they are driven towards intensive agriculture that focusses on productivity and heavy fertiliser use to try and maximise yields. Not only does this damage the environment around them, it also risks creating

a vicious cycle whereby intensive farming decreases soil quality, which affects yields (Fitzpatrick et al 2019), which in turn prompts even greater fertiliser use to maintain profitability and pay rents.

In essence, through intense supermarket competition and high rents, farmers are being squeezed at both ends and inadvertently damaging the environment in the process.

The third major challenge is that the environmental benefits of good farm management have previously not been sufficiently valued, despite the numerous benefits they have. Good quality soil can store a huge amount of carbon and diverse pastureland can increase wildlife richness. In the case of farms bordering water bodies, the planting of trees can act as natural barriers for flooding. Yet these things are not valued by the UK government and farmers receive no income streams for their preservation.

POLICY ACTION TAKEN

The UK government is currently trialling an Environmental Land Management (ELM) scheme that rewards farmers both for food production and for preserving wildlife and the environment around farms with a view to it being rolled out fully from 2024 to 2027 (Harris 2020).

While this is a very welcome policy action, it does not address every issue mentioned above. By contrast, many farmers are already taking actions that do tackle them and could provide useful instruction to UK policymakers. Below we discuss three brief case studies of positive actions and how they could inform future UK policy.

The first is the work of the Nature Friendly Farming Network. Farmers in this network implement agroecological system thinking that sees restorative land management and agriculture as mutually beneficial. Their practices implement a 'less but better' model that challenges the assumption that decreasing chemical inputs, livestock densities and overall production can harm farmers' profitability. Through a combination of improving crop and soil management, shifting to lower livestock densities and using pastures rather than relying on bought-in feed, employing technological advances such as GPS tracking of soil nutrients and reducing fertiliser use, Nature Friendly Farming Network members are demonstrating that profitability can be maintained or increased while the balance of nature is restored.

Fordhall Farm is another excellent example both of the soil and wildlife benefits of introducing biodiverse pastureland and of how to tackle the problem of land ownership. After many years of legal battles, Fordhall Farm became a community-owned farm. Tellingly, the removal of the prospect of further development of this land meant that its value effectively halved overnight. However, from a community perspective, the farm was arguably worth far more due to the increased relationship between the farmers themselves and the local community buying their produce. From the farm's perspective, it was able to sell to the community directly, rather than having to reduce prices and sell to large food distributors and supermarkets.

The final example demonstrates how, despite positive individual actions, concerted government policy is also necessary for transformative change. In Denmark, the vast majority of fruit and vegetables grown and sold are now organic as standard thanks to substantial government investment and policymaking initiatives through its Organic Action Plan to help make this the new normal for farmers (MFAFD 2015). In 2015, for example, Copenhagen met its target to make 90 per cent of its food organic without increasing meal prices (Future Policy 2020).

While the examples mentioned above are very positive and show farmers leading the change towards nature-friendly farming, coordinated government policies are crucial to taking them on board and scaling them up across the sector.

WINNERS AND LOSERS

The examples above came as a result of greater awareness of alternative methods to the norm. However, in both UK examples there was, and has continued to be, resistance from other farmers who are either unaware of more sustainable methods and ownership models or lack the capacity and resources to implement them. Consequently, simply calling for farmers to change their ways or even introducing new payment schemes to monetise environmental goods likely won't be enough on their own. To avoid them being left behind, raising awareness of what is expected of farmers and, crucially, how they can benefit from transitioning to more sustainable farming will be essential to any policy programme.

More fundamentally, a national conversation is needed that puts food prices in the context of other, often much higher, living costs to ensure that policies that address the sustainability of agriculture do not penalise the poorest in society. Indeed, while higher quality, environmentally sustainable food may be associated with higher prices in some cases, it is frequently a small proportion of essential household spending compared to other payments, such as mortgages or rents and utility bills. The priority should therefore be on improving food quality while also addressing other, much more substantial living costs. In fact, as the example from Denmark shows, through concerted policy action, higher prices for higher quality food are not necessarily a foregone conclusion.

Following the example of Fordhall Farm, in addition to addressing other living costs, one way to justify food prices could be to promote more community-owned farms where farmers can sell directly to local customers. In this example, some increase in cost was seen to be worthwhile by the community because of the relationship with the farm and the knowledge that their support is enabling multiple positive changes in the area.

Lastly, the government will need to make sure that it rewards forward-looking farmers who are acting now in anticipation of specifications over what does and does not constitute environmentally sustainable land management. A certain degree of flexibility over initial specifications will be key here so that farmers acting now are not penalised for doing so.

LESSONS FOR THE UK

A clear message from the Fordhall Farm case study was that community ownership can build relationships back into the food system. If the food supply chain is to become more environmentally sustainable – and possibly slightly more expensive – consumers will need to see the multiple positive changes that this can bring, rather than being left unaware of the industrial-scale mass production that goes on behind the scenes to deliver 'cheap' food to the supermarket aisles.

These relationships must also be nurtured by using the right language to communicate policy initiatives. Food has a huge cultural resonance, but the connection people may have to the places where it is grown and reared can be discounted by superficial conversations over affordability. While this will always be important, we should instead be talking about the whole value of food. When that happens, cost is just one factor in the conversation, into which multiple co-benefits (including health, quality and the environment) can become major deciding components of an understanding of 'good' food.

Finally, and inevitably, individual case studies can provide useful insights for policymaking, but the policymaking should respond in kind. Individualising the response to the climate and nature crisis, or indeed products which would see farmers receiving greater shares of sales, requires customers in a supermarket to make informed choices over complex food supply chains, about which they may have limited knowledge. A more systemic response from government specifying the healthy and environmentally beneficial pathway that farmers should pursue – and providing them with the appropriate support to do so – is therefore essential to a just transition that benefits farmers, communities and individual consumers alike.

6.

KEY FINDINGS

Overall, we establish four core learnings for the UK deriving from our case studies.

1. DEVELOPMENT OF A POSITIVE VISION: PLANS NEED TO JOURNEY TO SOMETHING POSITIVE, NOT JUST AWAY FROM SOMETHING NEGATIVE

In the examples above, articulating the positive aspects of a transition either improved, or could have, the outcomes of policymaking. For example, while it is not totally clear how Germany's coal transition funding will support workers directly, a positive vision has been, and continues to be, articulated for the regions and all the communities affected. Similarly, the work of the Canadian Iron & Earth initiative to support workers moving into solar farm installation is providing oil and gas workers with a specific alternative and a crucial role to play in building greener futures.

By contrast, the failure to articulate a positive vision and provide clear alternative employment was arguably to the detriment of the initial transition plans in Canada and Germany and was consequently met with resistance by workers and their families (in addition to the fact that, as discussed below, levels of engagement were initially low). In Pittsburgh and Gothenburg, positive visions were set out but, as discussed below, these did not specifically benefit or consult workers as much as they could have, resulting in transitions, but arguably not just ones.

Finally, in the UK, the transition needed in agriculture also represents a significant opportunity to address fundamental inequalities related to land value, the misaligned incentives in the food supply chain and the price of essential household goods. As our case studies suggest, new forms of ownership and more environmentally sustainable farming methods demonstrate great opportunities to alleviate some cost pressures on farmers, while also reconnecting food supply chains to local communities. Raising awareness of these benefits will be crucial to bringing farmers on board with transition policy.

2. ENGAGEMENT: ENGAGE WITH THE WORKERS AND COMMUNITIES WHO ARE AFFECTED

In almost every example above, direct involvement of people most affected by the industrial change was crucial to the transition being just. Indeed, a lack of engagement led to injustice. In Germany, for example, initial plans to phase out coal were met with resistance by workers in the Lusatia region. Once a commission was put in place, however, a settlement was eventually reached, with the cautious backing of regions and worker groups. In Canada, the lack of consultation of workers in plans for transition, particularly of historically marginalised First Nations communities, contrasted with the explicitly worker-led Iron & Earth movement that has been relatively successful at galvanising the workforce to seek new low-carbon careers.

Gothenburg and Pittsburgh, by contrast, offer cautionary tales of what happens when workers are not engaged in the transition process. While Gothenburg's transition was supported by a robust social security network, job losses still occurred without recourse to specific transitional support. In Pittsburgh, in

the absence of social security, job losses occurred but also resulted in uneven growth and recovery, with pockets of racialised and ruralised poverty across the area. Finally, in the UK, a lack of consultation with farmers has arguably led to resistance to upcoming proposals for the Environmental Land Management (ELM) scheme on the basis that they do not provide farmers with sufficient payment to manage land sustainably. The result has been to water down these proposals rather than negotiate and reach compromise over payments, an outcome which arguably could have been ameliorated or avoided with greater and more deliberate initial engagement.

3. CO-DESIGN AND CO-PRODUCTION: GOVERNMENTS, BUSINESSES, WORKERS AND UNIONS, CIVIL SOCIETY AND LOCAL COMMUNITIES NEED TO CO-DESIGN AND CO-PRODUCE TRANSITION PLANS

In many of the examples discussed, businesses have played crucial roles in scoping out plans for transformation (even if other policies have failed to sufficiently support workers) but the exclusion of unions in some examples produced negative outcomes. The exception was perhaps in Germany, where the German Coal Commission was formed to consult with both industry and unions, meaning that business plans could be developed while unions ensured that workers' rights were considered. However, in the transition in Canada, once companies received payments from government, unions and workers lost leverage in negotiations. In Gothenburg and Pittsburgh too, although both cities were successful in engaging businesses and identifying and co-developing new growth areas, greater consultation with unions could have ensured that more workers and communities affected by previous deindustrialisation might have benefitted from these growth and regeneration plans.

4. FUNDING ISN'T EVERYTHING, BUT IT IS ESSENTIAL: SUBSTANTIAL FUNDING ISN'T A SUFFICIENT CONDITION BUT IT IS ESSENTIAL FOR A JUST TRANSITION.

Arguably the only example listed above where substantial public money has been invested in specific just transition activities has been in Germany (although, even here, support seems to be more for redevelopment of affected communities rather than workers themselves, maybe because of a stronger social security system that is more generous than the UK). However, with greater funding, other examples discussed in this paper could arguably have been more successful. In Canada, the government put \$35 million over five years into support for communities affected by the transition² but this is far less than the money committed by Germany. Indeed, they arguably missed an opportunity to attach just transition conditions to the financial support which companies received separately to the funding directly for workers. In addition, as a worker-led movement, Iron & Earth's progress in the oil and gas sector is not part of a state-funded initiative, yet its impact could grow with greater resources. In the cases of both Gothenburg and Pittsburgh, initiatives were much more focussed on reconfiguring and redeveloping each of the cities as a whole, rather than providing funded programmes for workers affected by industrial change. Finally, in the UK, as mentioned above, the proposed ELMs do not seem to be providing sufficient payments for farmers to encourage them to shift behaviours and manage farmland using more sustainable practices.

2 <https://www.canada.ca/en/western-economic-diversification/news/2019/09/government-of-canada-supports-a-just-and-fair-coal-energy-transition-for-alberta.html>

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