

**VONNE Climate Project
Background paper**

**North East England. Climate crisis,
ecology breakdown and the need for a
just transition**

From cause to effect

**Peter Stark
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1] Preface

This report has its origins in a decision by Peter Starkⁱ to call time on his career in the cultural sector and explore whether there was a way that he could contribute – in later life and as a late-comer - to the immediate crisis of the man made changes to climate and ecology from his roots in the North East and for its people, communities and environment. Peter's particular concern was with the communities still damaged by the injustice of the accelerated deindustrialisation of the late 20th century and the imminent consequences of an exit from the EU and the advent of AI in many of our areas of larger scale employment.

In the first five months of this year, the report was developed through informal discussions with Peter's existing network of friends and colleagues in the region. The conclusion, that given the current regional governance structures of the North East, any proposal for a region-wide programme needed to come initially from Civil Society, led him to approach the Voluntary Organisation Network North East (VONNE^{xiv}). In June, the VONNE Board agreed to provisionally accept the analysis and proposition contained in the report, to convene a Review Group and to consult its membership through a series of working groups and workshops. Those consultations added substantially to the report, and the conclusions emerging from this process form the final section of the report.

With Peter's continuing support, the report and the further thinking on programme options that is emerging from it now go forward for formal consultation - initially with the Region's Local Authorities and LEAs - and then with other regional and national agencies and region-wide and relevant specialist organisations.

We look forward to those conversations in the belief that a region and sector wide programme in response to the climate crisis would be an appropriate and powerful addition to the action already underway locally.

Sir Paul Ennals
VONNE Chair

2] Introduction and Executive Summary

The report is based on the premise that the North East of England's unique role in the causes of the current climate emergency, derived from our 300 year industrial history, gives us an opportunity and a duty to take the most effective action possible to address the urgent climate, environmental and societal challenges of the next decade to 2030 in the context of international targets for 2050.

There are multiple opportunities for us to address these challenges personally, domestically and in our communities, workplaces and organisational lives. The report suggests, however, that we should consider combining as a **Region in a region-wide programme** that can add value to those smaller scale actions and connect them with national and international campaigns for the policies and programmes that are a prerequisite for a future for our own species and the others with whom we share our planet.

It argues that the North East of the late 21st and 22nd centuries can still be a **sustainable, environmentally and culturally diverse and rich, just, economically resilient and beautiful place** in which to enjoy long and well lived lives. A home we will be proud to have passed on to our successors. To achieve that we will need the same radical public politics and policies and entrepreneurial and engineering innovation that informed our industrial past.

We believe that the **North East can become England's greenest region by, if not before, 2030.**

In anticipation of the **UK hosting the critical 26th UN Conference of the Parties (COP26) in Glasgow in November 2020** and then holding the Presidency of the COP through 2021 (now confirmed), we propose an initial two year regional programme pivoting around a **Regional Climate Conference to coincide, broadly, with COP26** and designed to bring together a **clear statement of targets and ambition for the Region** as a whole to achieve by 2030. Progress against those targets might then be reviewed at the end of 2021 (at the time of COP27) and then annually.

3] Climate Change and the future of our world

The UN Katowice Conference on Climate Change (COP24) confirmed the targets for greenhouse gas reductions by 2030 established in Paris in 2015 and due to be reported against at COP26 in November 2020. Those targets – intended to achieve net zero emissions and limit global warming to 1.5 degrees above pre-industrial levels by 2050 - were the minimum thought to be required to avoid catastrophic environmental damage by then and disaster by 2100. The UN International Panel on Climate Change (IPCC) report to COP24 indicated, however, that current trends had the world on track to increases of between 3 and 5 degrees. There were, then, two years to act decisively to reverse the trajectory of emissions growth if this future for our children and grandchildren was to be avoided.

It is of grave concern that, as it continues to be published, new research confirms both that the Paris targets are now inadequate and that far too many (and too many of them major) national contributors to greenhouse gases are falling far behind their own targets. Faced by this global climate emergency, national governments are too often objectively in default and politically in denial.

The IPBES report on Biodiversity and Ecosystem Services of May this year found that 1 million species are at risk of extinction with climate change a significant factorⁱⁱ. The IPCC report on the Oceans and Cryosphere (due for publication in early September) is expected to paint a similar if not darker picture in relation to the warming of the oceans, the thawing of permafrost and the loss of ice cover.

The IPCC report on Land and Food security (just published) details how a vicious cycle is underway, where degradation of land through intense farming, coupled with deforestation to free up more land for agriculture, is fuelling the release of more greenhouse gas emissions which in turn is driving further land degradation. If demand for food, animal feed and water continues to increase, combined with more resource-intensive systems of consumption and production, the world will be at severe risk of declining crop yields, increased food commodity prices, reduced nutrition, and potentially major disruptions to food supply chains. The report argues the need to immediately ramp up protection for existing forests and other carbon sinks, reduce food waste, and rapidly shift diets towards more plant-based eating if this downward spiral is to be broken.

This accumulating evidence has led the UN Secretary General to convene a Climate Summit (21st to 23rd September 2019). He is calling on all leaders to come to New York with concrete, realistic plans to enhance their nationally determined contributions by 2020, in line with reducing greenhouse gas emissions by 45 per cent over the next decade, and to net zero emissions by 2050. By the time of COP25 in Chile in December 2019, more will be known and with more certainty about the scale and imminence of the new and greater challenges that will exist by then to our climate, bio-diversity and ecosystems, the world's capacity to rise to them and the role of COP26 in co-ordinating a global response.

4] How did we get here and what part did the North East play?

It is sobering that circa 50% of the greenhouse gases now in the atmosphere have been produced in the 50 years since the science demonstrating their impact was available. A substantial part of the balancing 50% was released during the earlier years of the Industrial Revolution that began in the North East of England at the end of the 17th century. The spread of 'carboniferous capitalism' around the world in the 19th and 20th centuries appeared to offer the prospect of cheap energy, power and prosperity for all but – as is now known - at a potentially deadly price.

North East England is essentially the historic counties of Northumberland and Durham reaching from the Tweed to the Tees Valley. The Region is divided by the River Tyne but underpinned and profoundly connected for over 300 years – literally, economically, culturally, socially and politically – by the Great Northern Coalfield. Across those three centuries, that coalfield produced millions of tons of coal with many multiples of that extracted and burnt in the UKⁱⁱⁱ and around the world using technologies developed here. The Region's pits were essentially closed before the evidence of linkage to global warming was fully in place, but it was the engineers of North East England 'who released the genie of coal into the world'^{iv}.

5] Three centuries of North East engineering and innovation

At the end of the 17th century the Region was the first in the world to enter the Industrial Revolution, with 1,000 men employed on weekly wages at Crowley's Iron works in the Derwent Valley creating the world's first industrial proletariat^v.

At the beginning of the 18th century steam power was located on a major coal field to drain the mines for the first time (at Tanfield Lee 1715), and over 1 million tons p.a. was being extracted, used and exported to London and Europe via a network of waggon ways, keels and sailing colliers.

At the beginning of the 19th century production of coal stood at 4.5 million tons p.a. with a workforce of 12,000. Mr. Craiggy's Academy at Crawcrook was producing a cohort of innovators, entrepreneurs and engineers^{vi} who would sink the world's first deep pit (at Hetton-le-hole 1820^{vii}), ally it to the first steam railways (George and Robert Stephenson) and steam colliers (Charles Palmer), found the North of England Institute of Mining Engineers (Nicholas Wood) and enable mining to take off exponentially around the world.

At the beginning of the 20th century coal production peaked at 56.4 million tons p.a. with a workforce of 230,000 and the Mining Institute had 2,300 members with 45% of them working abroad. Electricity was lighting the region's houses and streets (Swan).

Three phase electrical power was delivered to heavy industry for the first time in the world in 1901 (at the Neptune Yard Wallsend). Then, thanks to steam turbines (Charles Parsons), switchgear (Alphonse Reyrolle), boilers and pumps (William Clarke & Abel Chapman) and the prototype of the National Grid (Charles Merz). Coal fired Power Stations and the infrastructure to fuel them and distribute their output were being exported globally.

For the centrality of the Region and its coal to the Industrial Revolution to be apparent, the glass, gas, iron, chemical, lead, steel, armaments, fishing, bridge and ship building industries (and more) need to be added with a particular focus later in the 20th century on the growth of petro-chemical industries in the Tees Valley.

6] The price paid by families and the environment

The drive and entrepreneurial and engineering genius of these men transformed the world, but the industries also exacted a high price from the workforce, their families and the communities of the Region. It was only in 1830 that Hepburn's strike secured a reduction in the length of shifts for boys (as young as 8) underground from 17 hours to 12 hours, and there are records of over 24,000 deaths in disasters and accidents during the life of the Great Northern Coalfield^{viii}.

Disabling injuries were common underground resulting in destitution and homelessness for the families and industrial diseases and grindingly hard labour (in the home as well as in industry) also caused early incapacity and death. In the 1920s, Dr Henry Mess carried out a survey of the industrial areas for the Tyneside Social Services Committee and charted the worst levels of TB and life expectancy and the poorest housing conditions in the UK.

As for the population, so for the environment. In the early 18th century Defoe commented upon the smoke from the fires at salt pans at South Shields that he had seen from South of Durham and from Berwick and by the 1840s the South Shields Chartists were protesting against the industrial pollution that was causing their garden crops, lawns and hedges to die. In 1860 there are the first records of trees dying because of acid rain.

By the time of J.B. Priestley's English Journeys in 1932 he describes Shotton, beneath its tip, as a 'Pompeii' with the whole village and everyone in it 'buried in a thick sulphurous reek'. By 1981, it was estimated that 66 million tonnes of colliery waste had been tipped on the black beaches of the Durham coast and into the sea affecting marine life over four miles out.

Using the phrase coined this century by Naomi Klein^{ix}, the mining communities of the North East lived in the first 'sacrificial land'.

7] A response in communitarian values and a radical politics

These conditions provoked, in turn, exceptional community solidarity, a vibrant working-class culture and a radical politics: whether the earliest articulations of Human Rights (Thomas Spence); 'Physical Force Chartism' (Crowley's Crew's support of Harney); Republicanism (Joseph Cowen); trade unionism (Thomas Hepburn and William Crawford) or internationalism (Nobel Laureate Arthur Henderson). Local women were at the forefront of the campaign to abolish slavery (the Quakers Elizabeth Pease and Anna Richardson) and the region's formidable (radical and militant) suffragette movement played a major role in the battle for electoral equality (Emily Davison, Mona Taylor, Ethel Williams and women's organisations throughout the coalfield). During the 20th century the North East became a Labour Party fortress.

The political movements in turn took control of local government in the early 20th century and were able to pioneer policies and implement them in housing, education, health, welfare and economic development well in advance of (and later alongside) national government. Structural innovation in the Region continued before and after the world wars and then nationalisation in such areas as industrial estates (Team Valley), council housing (Gateshead), resettlement to smaller 'County' new towns (in East Durham and SE Northumberland) and Regional Economic Development (NEDC).

Finally, between 1970 and the millennium, the Region lost (net) nearly 300,000 jobs in industrial production including power and mining at an average of 10,000 a year^x, as the North East of England became the world's first post-industrial region. First in and first out, and now with hard won experience of the consequences for society, economy, communities and culture of such a sudden and traumatic loss of jobs and specialist knowledge^{xi}, in an unjust transition to an insecure and too often impoverished future.

8] Making the connection

The challenges the Region now faces require the same combination of engineering innovation and radical approaches to politics and to social and economic policy that informed its history. Can power be drawn from those histories to achieve both the radical targets needed for emissions and energy and, this time, a 'just transition'^{xii} to a sustainable, greener future that also addresses the inherited foundations of inequality?

If these twin objectives can be achieved, then the North East's unique role in the causes of climate change and its early experience of environmental restitution^{xiii} could enable it to become a natural gathering place for future debates on policy and practice and an active and well qualified participant in those debates.

9] An international and regional framework and 'base' timetable

Given the global and international nature of the challenges and the centrality of the UN to their address, the UN and IPCC timetables suggest themselves as a framework. That, in turn, produces a regional focus on COP26 in 2020 where national Climate Change targets for action by 2030 (if global warming is to be controlled sufficiently by 2050) established after the Paris Agreement in 2015 will be reviewed and reset.

COP26 will be convened in November 2020 and it is now confirmed that the UK will host the event in Glasgow and then assume the COP Presidency for 2021^{xiv}. This provides added support and momentum for the idea that a related **North East event could be convened around the time of the main Conference and look forward to targets for the region to be achieved in the critical decade to 2030 and, beyond, to 2050.**

The first phase of consultation has brought three bodies together - the Voluntary Organisations Network North East, the region's two Nature Partnerships, and Youth Focus: NE - as key partners^{xv} ready in principle to take this proposal forward out of Civil Society. The **next step will be more formal consultation led by VONNE** with, initially, local government, the LEPs^{xvi} and health services, and then with other regional agencies, the private sector, unions, higher education, campaigns and others.

The nature of any Gathering/event and the programmes that might build towards it and follow it will form part of this consultation. It would seem sensible, however, to envisage a timetable that would begin at the time of COP25 (December 2019), build towards COP26 (November 2020) and then run through the year of the UK's Presidency to COP27 in December 2021.

10] Conclusions emerging from the VONNE consultations

- 1) Alongside the more local identities that we hold dear, there has been affirmation for this project of an underlying and still potent North Eastern identity, from the Tweed to the Tees Valley. The 'story' of our region's globally unique and pioneering journey into, through and out of the Industrial Revolution and our relationship to the causes of climate emergency and environmental breakdown has been described as 'compelling' nationally. Within the region it has very often been revelatory and the cause of mixed emotions of pride and sadness and anger.
- 2) Those emotions have also been experienced as empowering in the context of the connections forward to the climate and environmental and 'just transition' challenges of the next decade and beyond. As the region that developed and exported the mining, transport and electrical power generating and distributing technologies that 'released the genie of coal into the world', we acknowledge a duty to strive for an exemplary response. As a region that was the first 'sacrificial land' and that experienced the unjust transition of accelerated deindustrialisation we demand a just transition to the new economy.
- 3) Although there are powerful arguments for more urgency and more radical targets, we are adopting pro tem the recommendations of the UN IPCC and UN IPBES and the UK CCC and annual State of Nature Report as sources for our minimum targets. We have also noted the remit of the IPPR Commission on Environmental Justice as having the potential to generate targets/indicators for a 'just transition'.
- 4) We have adopted the UN COP timetables with the intention of an initial two-year programme from COP25 (Chile December 2019) to COP27 (December 2021) pivoted around the anticipated UK hosting of COP26 (November 2020) and subsequent Presidency for 2021.
- 5) We adopt a three-part framework to the global, national and regional challenge: Climate crisis; ecology breakdown, and the necessity for a just transition to a low carbon and environmentally sustainable future. We recognise the scale of the changes that will be required from us individually and collectively in our personal lives and communally as well as nationally and internationally. We note that the responsibility to deliver the necessary reductions in global greenhouse gases must lie primarily with national governments working collectively (supported by our modest contributions to the UK target).
- 6) We recognise, however, that most of the targets to improve our natural environment and deliver a just transition can be addressed and delivered regionally and that the changes to our way of life needed in these areas are almost all positive. We can emphasise what is to be gained above those things we will need to do and consume less of.
- 7) We adopt an intergenerational approach acknowledging the different contributions of the elders, the youth and of those currently holding positions of authority within the economy, politics and society. We acknowledge that the nature of these challenges must confer increased authority on the voice of Youth.
- 8) We will draft a vision of the Region in 2030 as an environmentally sustainable, culturally diverse and rich, just, economically resilient and beautiful place in which to enjoy long and well lived lives. A home we will be proud to have passed on to our successors. The North East as England's Greenest Region?
- 9) In co-operation with local government, the public and private sectors and other partners we target a first statement of shared ambition for a regionwide programme by December followed by the development of a more detailed plan for 2020 and 2021 and then beyond – including the plan for an event or events around the time of COP26 - to be launched in the Spring.
- 10) Any regionwide programme must add value to the work already in train in civil society, local government, other parts of the public and private sectors and HE. We argue that, over the suggested initial two years of the programme, civil society organisations would have a key role in connecting everyday lives of their members and users/clients to what the future can offer, positively.
- 11) We acknowledge that effective regional campaigning for the national action that will be required to support local and regional programmes will require the root in democratic accountability that local government across the region can provide.
- 12) The scale and urgency and weight of the work needed to avert global catastrophe can daunt. We choose to identify with Christiana Figueres, architect of the Paris Agreement and founder of Climate2020 as 'Stubborn Climate Optimists'. We are alert to the disguised and overt work of vested interests and the blandishments of 'greenwashing'.

Endnotes

ⁱ Peter Stark was born and brought up in Newcastle but with family on both sides of the Tyne and holidays on the coast and in the Cheviots. After twenty years learning his trade elsewhere, he returned in the 1980s as Director of Northern Arts and then worked through the 90s with Gateshead on the Millennium Bridge, Baltic and Sage before a Professorship at Northumbria University and then a decade in the inner cities, townships and rural areas of South Africa. Returning to the UK in 2012 he formed GPS Culture and was lead author on its reports into the imbalances of public and lottery funding for culture between the capital and the rest of the country. Latterly he worked as Development Director for The Mining Institute, helping to rescue its building from closure and raising the bulk of the funds that were needed to secure its reopening next year as The Common Room.

ⁱⁱ The average abundance of native species in most major land-based habitats has fallen by at least 20%, mostly since 1900. More than 40% of amphibian species, almost 33% of reef-forming corals and more than a third of all marine mammals are threatened. The causes identified are, in descending order: (1) changes in land and sea use; (2) direct exploitation of organisms; (3) climate change; (4) pollution and (5) invasive alien species. With the impact of climate change likely to increase substantially under current projections.

ⁱⁱⁱ It is estimated (<https://www.gov.uk/government/statistical-data-sets/historical-coal-data-coal-production-availability-and-consumption>) that over 15 billion tonnes of coal have been extracted from deep mines in the UK over the last century alone.

^{iv} Barbara Freece in 'Coal. A Human History'

^v An essay by Regional Historian Bill Lancaster summarises the research base for this position on the front page of the Land of Oak and Iron website. <http://www.landof oak and iron local history portal.org.uk/index.asp>

^{vi} Margaret Jacob. The First Knowledge Economy

^{vii} 'Geologists previously asserted that coal did not exist beneath the Magnesian Limestone, or, if it did exist, they said it must be deteriorated both in quality and thickness; but this colliery has been sunk through a bed of this stone, fifty eight yards in thickness ; and, so far from being deteriorated, the coal is excellent both in quality and thickness. The sinking of the shaft was commenced on the **19th December 1820** (*Meaning that the 200th anniversary of this event – the beginning of deep mining globally will take place just after COP 26*); the Main coal was reached on the 3rd of September 1822, at a depth of 109 fathoms'.

^{viii} The Durham Mining Museum records – and is dedicated to the memory of – the more than 24,000 men, women and children who lost their lives in mining related accidents in the North of England since 1293.

^{ix} Naomi Klein in 'This Changes Everything' referring to the Alberta Tar Sands and the Appalachian coal fields

^x Cambridge Econometrics data, constructed as part of the 'Structural Transformation, Adaptability and City Economic Evolutions'-project (ES/N006135/1)..

^{xi} In addition to the loss of jobs, the 1980s and early 1990s also saw the closure of R&D capacity (e.g. the International Research and Development Company established and owned by Reyrolle Parsons and then Northern Engineering Industries – NEI) that had been of international importance in investigating renewable energy technologies: solar, wind, wave, tidal, geothermal, combined heat and power and heat pumps since the 1970s

^{xii} <https://www.ippr.org/research/publications/a-just-transition>

^{xiii} The 'black beaches' of County Durham have now – forty years after the closing scenes of Get Carter were filmed there – been in the running for UK 'best beach' awards.

^{xiv} The UK has now been confirmed as the host nation (in partnership with Italy) for COP26 and Claire Perry has been announced by the new Prime Minister as the COP President. Glasgow has been announced as the host city. Working with the NewcastleGateshead Initiative, the political leaderships of both Gateshead and Newcastle had signed an expression of committed interest in hosting the 'Pre-COP' planning conference that precedes the main event (which is too large in scale for us). However, it is now confirmed that, within a diplomatic 'package,' the Pre-COP for the UK main conference and a 'Youth summit' has been allocated to Italy. A successful UK bid and the subsequent UK Presidency to COP27 at the end of 2021 is likely to be supported by a national programme of events (and funds to support that programme).

^{xv} VONNE is the region's support body for the voluntary, community and social enterprise sector. It represents over 1000 member charities, voluntary organisations, community groups, networks and social enterprises across the region. The NE Nature Partnership was established on a government initiative in 2016. The partnership brings together seven of the regions Local Authorities, NGO's, business and Defra agencies to work collaboratively *to achieve Environmental Growth through investment in our natural capital* to create landscapes that are resilient, adapted for a changing climate and for the benefit of nature, communities and the economy across the North East of England.

The Tees Valley Nature Partnership works to coordinate and strengthen local action to secure a functioning, sustainable and resilient bio-diverse natural environment to improve the health, well-being and livelihoods of people in the Tees Valley. Its mission is to achieve a Tees Valley where more people are connected to bigger and better wildlife rich spaces Youth Focus; North East was established in 1989 and it works, from offices in Gateshead and Middlesbrough, directly with young people and with professionals to support over 1500 organisations and individuals across the region.

^{xvi} The beginning of the process of consultation in civil society rather than local government was suggested by the loss of the Association of North East Councils (ANEC) which brought together all 12 local authorities. ANEC's pioneering and substantial work on environmental and green issues in the early 2000s, working through Climate NE, was celebrated internationally for its collective leadership in the field. The strong Local authority presence within the LEPS has now made it possible to combine consultation with them and with the private sector in a context established by and connected to national government.