

# The Social and Environmental Requirements of a Climate Emergency Economy

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## Preface

This report is part of the wider Climate Emergency Economy project, which includes the Zero Carbon Policy Toolkit put forward by Green House think tank and the Green European Foundation.<sup>1</sup> This toolkit of blockers and enablers clarifies what must stop or start happening for our economy to transition to zero carbon.

This report explores the implications of shifting to a climate emergency economy that allows the global temperature increase to be limited to 1.5°C, biodiversity to be restored, sustainable levels of resource use and other planetary limits to be respected. Notably it also explores the social requirements of a shift to a climate emergency economy, such as limiting inequality globally and making our economy just. It goes on to outline the interventions needed to stop the blockers to a climate emergency economy, and to facilitate the enablers of the transition. These policy recommendations cover  **Manage Demand**, focusing on  **Quality not Quantity**, ending the  **Rubbish in, Rubbish out** linearity of our economy and  **Empowering Local Solutions** from the [Zero Carbon Policy Toolkit](#). These interventions show a path that addresses the multiple requirements of creating a sustainable environment, together and in a socially just way.

This project's 'Infrastructure Requirements for Zero Carbon' report defined what should be viewed as sufficient action to create a climate emergency economy<sup>2</sup>. The 'Trade and Investment requirements for Zero Carbon' report evidenced the need for change to global systems of trade as well as our local economies to achieve this action<sup>3</sup>. The present report looks at the environmental and social objectives of the transition, and critically how our economies' current response to these challenges is insufficient. Together these reports aim to facilitate the work of policy makers and activists engaging with often abstract sectors of trade, industry, infrastructure and investment. A whole-system perspective is critical. Reaching a climate emergency economy requires fundamentally reworking our whole economy.

Note: In this report we maintain the idea that an economy is a tool to be fashioned and used, not a master to be served. It is ours to change. For this reason we refer to 'our' economy much of the time. As authors, we are writing from an English, European perspective, and so that is the context (along with other global north contexts) that we mainly have in mind. It is our hope that any reader can take this positive vision of the potential of any economy and consider it for their own context. However, when we speak of the damaging actions and attitudes that 'our' economy has been involved in, that criticism is aimed squarely at European, industrialised societies, and we try to make that clear at these times.

1 Green House Think Tank (2020) '[Enablers and Blockers of Zero Carbon: Policy Toolkit](#)'.

2 Sims, P, and Essex, J (2020) '[Infrastructure Requirements for Zero Carbon](#)'. Green House Think Tank and Green European Foundation.

3 Sims, P and Essex, J (2020) '[Trade and Investment Requirements for Zero Carbon](#)'. Green House Think Tank and Green European Foundation.

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## Introduction

A climate emergency economy is an economy that responds fully to the climate and biodiversity emergencies highlighted by scientists and declared by many globally.<sup>4</sup> These calls for a climate emergency refer to the 2018 IPCC special report, and the stark requirements and impacts it laid out for limiting global temperature rise to 1.5°C.<sup>5</sup>

Alongside climate change, the biggest global threats to biodiversity include the use and exploitation of land and the marine environment, and pollution. The first section of this report explores how these limiting factors on human activity should be defined. The loss of biodiversity is a critical part of a climate emergency economy as it also threatens the conditions required for humanity to thrive. But whilst most would surely agree on the need for a safe and stable climate and environment, both now and to pass on to future generations, there is less agreement or clarity on what are acceptable climate risks and what therefore would be a safe (and fair) carbon budget.

To help answer the question ‘what conditions should constrain and direct an economy that treats the climate crisis as an emergency?’ the second section of this report considers why it is a critical requirement that a climate emergency economy be equitable and just.<sup>6</sup> Firstly, a future that sustains well-being for only a small minority of humanity would be a very cruel world. Secondly, the critical and urgent nature of the climate and biodiversity emergencies requires all to act now.<sup>7</sup> For the transition to be rapid and transformational the majority of the population need to participate, even if they don’t actively support and drive it. Democratic, business and civic society leadership is needed to empower and enable all to accept the societal and lifestyle changes needed to address this emergency, and for this to be accepted as the ‘new normal’. Therefore, it is just as important that a climate emergency economy is equitable and just as it is that it rapidly shifts to operate within environmental limits.<sup>8</sup> Furthermore, there is a wealth of evidence linking greater equality to higher quality of life for all groups within a society.<sup>9</sup>

Ultimately, what underpins both of these requirements is a desire to prioritise well-being and happiness of future generations as well as the current ones. For our society to maximise quality of life for all, both now and in the future, an ecologically sustainable environment must be maintained, and an equitable economy created<sup>10</sup>.

4 ‘Climate emergency declarations in 1,910 jurisdictions and local governments cover 826 million citizens’ – Climate Emergency Declaration (2021) [‘Climate emergency declarations in 1,910 jurisdictions and local governments cover 826 million citizens’](#) (accessed: Mar 2021).

5 Intergovernmental Panel on Climate Change (IPCC) (2018) [‘Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development and efforts to eradicate poverty’](#).

6 S. Nazrul Islam, S (2015) [‘Inequality and Environmental Sustainability’](#). UN DESA, Working Paper No. 145.

7 Jackson, T (2019), [‘Zero Carbon Sooner’](#). CUSP, Working Paper 18.

8 This point is made widely such as: Extinction Rebellion Youth (2020) [‘Readings for Climate Organizers Regarding BLM’](#); Filbury, H (2020) [‘No Climate Justice without Racial Justice’](#). Carbon Literacy Project; and NoiseCat, JB (2019) [‘No, climate action can’t be separated from climate justice’](#).

9 The Equality Trust (2009) [‘Why More Equality?’](#).

10 For example The LEAP and War on Want are calling for a Global Green New Deal (Global Green New Deal (n.d.) [‘About us’](#)) and the International Labour Organisation is calling for a [‘Just Transition Towards Environmental Sustainable Economies and Societies for All’](#) (2018).

The report explores these two foundational requirements of any climate emergency economy.

## Environmental Requirements for a Climate Emergency Economy

For our society to thrive, human systems need to be sustained without causing irreparable and critical damage to the environment that humanity depends on. This requires addressing not only the climate emergency and biodiversity crisis, but also the fact that humanity as a whole is exceeding known limits to resources extraction and pollution levels.<sup>11</sup> One way to imagine this challenge is through the concept of planetary boundaries which set out the critical thresholds our economy has crossed, of which climate change is just one.<sup>12</sup> Other planetary boundaries refer to our use of synthetic chemicals, leading to depletion of the ozone layer, air pollution and long-lived, persistent toxic pollutants. Leakage of synthetic chemicals into the natural environment should be governed by the precautionary principle: where the 'safe' level of pollution from new substances is not known, our society must restrict their release, and therefore their use. However our economy currently continues to use ever more synthetic chemicals, releasing these substances into Earth systems when the impact of doing so is unknown<sup>13</sup> – for example, EU countries continue to issue 'emergency authorisations' for the use of neonicotinoids (neuro-active insecticides) in farming although the EU agreed a ban on all outdoor uses of the neonicotinoids in 2018 because of their effects on honey bees and other pollinators.<sup>14,15</sup>

In many cases defining safe limits is problematic. For example, the very properties that originally heralded plastic as a wonder material, such as its persistence, make it a global pollutant. The full impact of micro-plastics being dispersed into our rivers and seas, soil, and air is currently unknown. The current 'pollute first, ask questions later' approach is insufficient as any response or intervention comes too late to avoid impacts.

Accepting the urgency of the climate emergency means that unlike past environmental problems, it cannot take decades for sufficient action to be taken.<sup>16</sup> Almost three decades have already passed since international recognition of climate change prompted the creation of the United Nations Framework Convention on Climate Change (UNFCCC), yet annual global emissions have almost doubled over this

11 Greenhouse gas emissions are just one form of pollution.

12 Stockholm Resilience Centre (n.d.) '[The Nine Planetary Boundaries](#)' (accessed: Aug 2020).

13 Chapman, A (2007) *Democratizing Technology: Risk, Responsibility and the Regulation of Chemicals*. Routledge; see also Chapman, A (2006) '[Regulating Chemicals—From Risks to Riskiness](#)'. *Risk Analysis* 26:3.

14 Dowler, C and Sandler Clarke, J (2020) Loophole keeps bee-killing pesticides in widespread use, two years after EU ban, Unearthed <https://unearthed.greenpeace.org/2020/07/08/bees-neonicotinoids-bayer-syngenta-eu-ban-loophole/> (accessed: Apr 2020)

15 A historic example is the use of the [anti-inflammatory drug diclofenac in cattle](#) on the Indian subcontinent, causing vulture populations to plummet by 99% before its impacts on natural systems were identified – Becker, R (2016) '[Cattle drug threatens thousands of vultures](#)'. *Nature*.

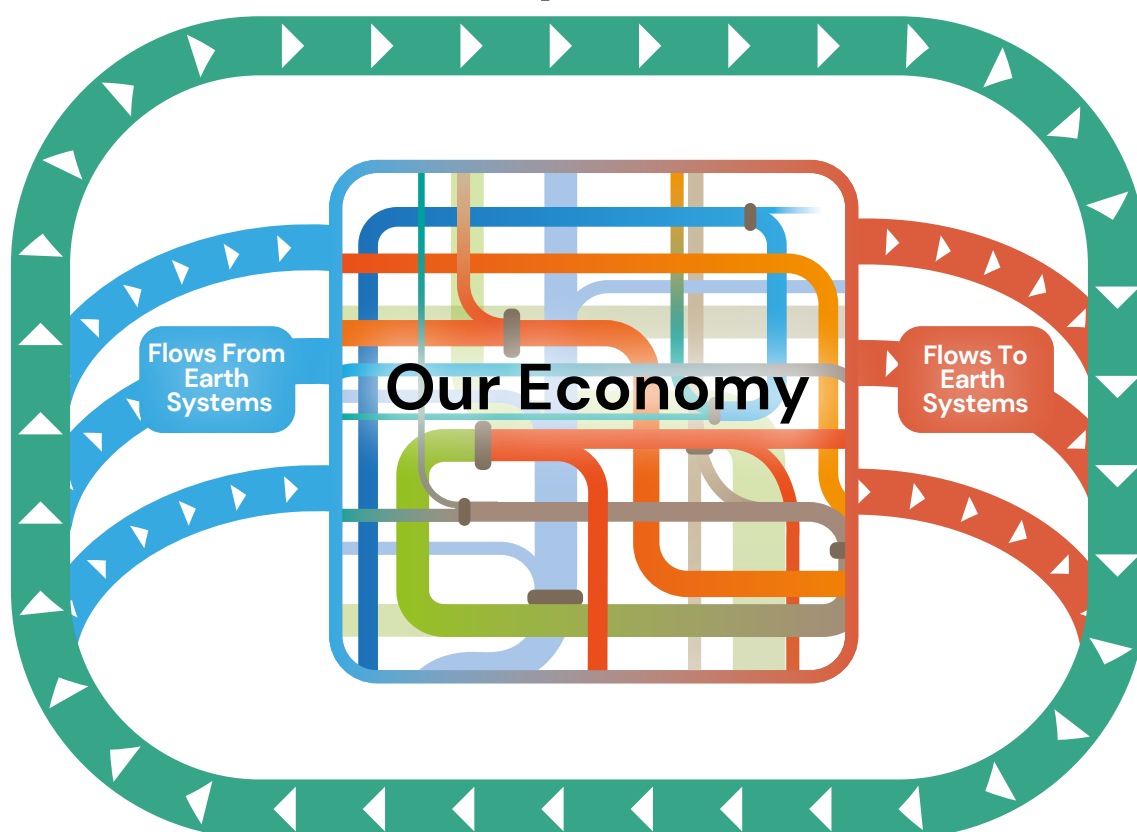
16 It took 40 years to ban the pesticide DDT internationally following the publicity of its deadly impact on bird populations in the book *Silent Spring* in 1962 – Carson, R (1962) *Silent Spring*. Houghton Mifflin Company; see also Boslaugh, SE (2016) '[Silent Spring](#)'. *Encyclopaedia Britannica* (accessed: Mar 2021).



period.<sup>17,18</sup> Shifting to a climate emergency economy means accepting that to thrive in the future, Europe must shift its patterns of energy and resource use, and associated pollution, to fit within the carrying capacity of the Earth. This means restructuring our economy. Such a shift could be pictured as limiting the flows of resources from the Earth systems to human systems, and of pollution and ‘waste’ from human systems back to Earth systems (see Figure 1). For some flows, very strict controls that limit the release of synthetic chemicals to Earth systems to practically zero are needed. However, there are other flows, such as water, biomass or nitrogen, which can be significant, providing that they are within local and global sustainability limits. Key examples of these limits being broken are the eutrophication of watercourses caused by too many nutrients from fertilisers or sewage, and the draining of aquifers.<sup>19,20</sup> So as well as reaching zero carbon, humanity must:

- stop the release of many synthetic chemicals into the environment
- scale down levels of resource extraction to within sustainable levels
- reduce the releases of naturally occurring substances to levels Earth systems are able to absorb
- make space for ecosystems and natural biodiversity to be brought back from the threat of mass extinctions.

## Earth System Flow



**Figure 1: How the human economy fits within and interacts with Earth system flows.**

17 UNFCCC (2021) '[What is the Kyoto Protocol?](#)' *United Nations* (accessed: Mar 2021).

18 Global Carbon Project (2020) '[Data Supplement to the Global Carbon Budget 2020 \(Version 1.0\) \[Data set\]](#)'.

19 Léraud, I (2021) '[The Green Tides of Brittany](#)'. *The Land* 28.

20 Sidhu, BS, et al. (2021) '[Spatio-temporal assessment of groundwater depletion in Punjab, India](#)'. *Groundwater for Sustainable Development* 12, 100498.

This is, however, not the approach many, particularly in more industrialised nations, are currently taking. There is a stark contrast between current mainstream efforts to decarbonise different sectors, and the approach outlined above. Climate change, pollution, biodiversity loss and resource depletion are currently all considered separate challenges. For instance, there have recently been attempts to consider how implementing a ‘circular economy’ can help tackle climate change, which reinforces the view that the economy and the climate are separate challenges, which might complement each other, rather than parts of fundamentally the same challenge.<sup>21</sup> A ‘circular economy’, as it is currently defined, is about shaping our economy to ‘design out waste and pollution, keep products and materials in use, and regenerate natural systems’.<sup>22</sup> This means it’s focused primarily on the flows from our economy to Earth systems, as shown on the right hand side of Figure 1. As the following section explores, this means that the idea of a ‘circular economy’, like current attempts to address climate change and plastic pollution, are primarily focused on the outputs of our economy. To make reaching a climate emergency economy achievable, our society must also consider the inputs into our economy.

### Putting Permanence before Circularity

There are two reasons why it is important to consider the inputs into the human economy alongside its outputs. Firstly, to achieve sustainability often involves reaching a balance (in this case between the human economy and Earth systems) such that there can be some level of stability.<sup>23</sup> Achieving balance or stability involves in part looking at inputs relative to outputs. Secondly, because the world economy in general is currently linear, the inputs tend to drive the outputs – for example, it is implausible for humanity to limit greenhouse gas emissions unless fossil fuel extraction is also limited.<sup>24,25,26</sup> The pandemic has highlighted how demand and supply of fossil fuels are closely linked.<sup>27</sup>

It is clear that currently, across a whole range of indicators, the world economy is ramping up exponentially, rather than stabilising.<sup>28</sup> Table 1 highlights how global resource use tripled from 1970 to 2017 – across all sectors. Current predictions suggest that actual resource use will more than double from 2011, leading to more emissions from ‘material management’ than total global emissions today.<sup>29,30</sup>

21 Ellen MacArthur Foundation (2019) [‘Completing the Picture: How the Circular Economy Tackles Climate Change’](#).

22 Ellen MacArthur Foundation (2021) [‘What Is The Circular Economy?’](#)

23 No system is in a state of rapid flux for very long, and therefore an unstable system tends to be unsustainable. Most of the warnings about climate change are essentially warnings about growing instability in Earth systems and the risk of a period of rapid flux, which both humanity and all other life will struggle to adapt to – World Bank (2012) [‘Turn Down the Heat: Why a 4°C Warmer World Must Be Avoided’](#).

24 Smith, C.J, et al.(2019) [‘Current fossil fuel infrastructure does not yet commit us to 1.5°C warming’](#). *Nat Commun* 10, 101.

25 Carbon Tracker (2017) [‘Carbon budgets: Where are we now?’](#) (accessed: Mar 2021).

26 Berners-Lee, M, and Clark, D (2013) *The Burning Question*. Profile Books, pp.82–83, 87.

27 Sheppard, D, and Hume, N (2020) [‘Oil storage to max out in months as coronavirus crushes demand’](#). *Financial Times* (accessed: Mar 2021).

28 Steffen, W, et al. (2015). [‘The Trajectory of the Anthropocene: The Great Acceleration’](#). *The Anthropocene Review*.

29 OECD (2019) [‘Global Material Resources Outlook to 2060: Economic Drivers and Environmental Consequences’](#).

30 Ritchie, H (2020) [‘Sector by sector: where do global greenhouse gas emissions come from?’](#)



Sector	Extraction (2017)	Increase since 1970
Metals	9.1 billion tonnes	3.5 times higher
Non-metallic minerals	44 billion tonnes	4.9 times higher
Fossil fuels	15 billion tonnes	2.5 times higher
Biomass	24 billion tonnes	2.7 times higher

**Table 1: Level of global resource use by sector, 1970–2017.<sup>31</sup>**

The biggest industry in terms of material consumption is construction. Of the 100 billion tonnes of resources used globally in 2017, nearly half were used to increase the scale of global assets and barely 9% (a decreasing share) were reused or recycled. Despite the increase in the size of the built environment, it is clear that the growing size of inputs into our global economy is a key driver of the unrestrained waste flows out of our economy, which are causing pollution and overrunning planetary boundaries.<sup>32</sup> It is clear therefore that humanity as a whole must limit the flows of new resources it uses. This is particularly true for metals.<sup>33</sup> If humanity wants to maximise what it can achieve within the external limits of Earth systems, there is clearly a role for circularity. However, that circularity should not be about taking additional resources to construct new products and buildings for which the intent is to reuse and recycle in the future. Circularity must start now, using the resources already within our economy, to displace currently unsustainable input flows. Thus a climate emergency economy will be fundamentally different – it must start with our existing assets and increase their permanence, and therefore their sustainability.

## Understanding the Limits of Control

Recent European history demonstrates a people acting as if they were completely in control of their own destiny, and shaping nature to suit a certain group's needs. This has driven much of industrialisation and the economics of colonialism.<sup>34,35</sup> The current idea of a 'circular economy' risks reinforcing this idea of humans being in control of the whole cycle of material flows. It is therefore important to focus on the limits that global and local economies must place on inputs from the natural world and waste flows back to the natural world, acknowledging that all economies are part of bigger Earth systems.<sup>36</sup> This requires accepting that humanity is not in control of everything, yet it does have a responsibility to take control of flows in and out of its economies.

31 Oberle, B, et al. (2019) '[Global Resources Outlook 2019: Natural Resources for the Future We Want](#)'. *International Resource Panel; United Nations Environment Programme*, pp.32–38.

32 Stockholm Resilience Centre (n.d.) '[The Nine Planetary Boundaries](#)' (accessed: Aug 2020).

33 Allwood, J, and Cullen, J (2012) *Sustainable Materials: With Both Eyes Open*. UIT Cambridge.

34 New Civil Engineer (2018) '[Defining civil engineering](#)' (accessed: Mar 2021).

35 Light, M (2020) '[Colonialism, Hegemony, and the Environment](#)'. *Climate Just Collective* (accessed: Mar 2021).

36 Giampietro, M, and Funtowicz, SO (2020) '[From elite folk science to the policy legend of the circular economy](#)', *Environmental Science & Policy*, 109, pp.64–72.

## Managing Demand

There are externally defined limits to the resources and energy available from Earth systems and the Sun as well as limits to the waste flows the human economy can release back. Although with time and research it might be possible to ‘do more’ within these limits, currently these external limits define what, goods and services our economy can produce. Demand for goods and services will need to be managed, and in some cases substantially reduced, to allow our economy to fit within the available ecological space.<sup>37</sup> Current ideas of a circular economy do not properly acknowledge this or provide sufficient policies to achieve it.

For example, recent work outlines the need to use less material to produce far fewer, smaller cars that last longer.<sup>38</sup> However many proponents of a ‘circular economy’ fail acknowledge that this means a reduction in the scale of global material flows, or a reduction in global car production, let alone that we must reverse the trend towards more, heavier SUV’s currently seen in the UK.<sup>39</sup> Only by accepting that our economy must constrain its inputs as well as its outputs, and that the ‘scale’ of production is often part of the problem, does the route to a climate emergency economy become clear.

## The Geographic Scale of Circularity Matters

Reaching zero carbon means transforming both the level of energy consumption and how that energy is supplied. Renewable sources cannot generate anywhere near the same amount or concentration of energy that fossil fuels currently provide.<sup>40</sup> This has big implications for the global transportation of goods and materials, which currently relies on the energy-dense and easily storable fossil fuel that is oil. There are currently no technologies viable at the required scale for decarbonising aviation or long-distance shipping, so to reach zero carbon these forms of transportation need to be scaled down.<sup>41</sup> However, global freight is currently expected to triple by 2050 and, even more worryingly, the most climate damaging freight transport, airfreight, is expected to increase the most: a predicted nearly five-fold increase over this period.<sup>42,43</sup> Earlier work in the Climate Emergency Economy project has highlighted that much of current trade could be avoided or, in the case of aviation, shifted to other modes.<sup>44</sup> It is neither possible nor necessary to completely decouple transportation from energy demand. However, accepting that energy demand (particularly in the forms most suitable for transportation) will be in limited supply in any climate

37 Kate Raworth (2017) *‘Doughnut Economics’*. Random House.

38 Ellen MacArthur Foundation (2019) *‘Completing the Picture: How the Circular Economy Tackles Climate Change’*.

39 Sales of larger sport utility vehicles (SUVs) are still rising and now account for over a fifth of new vehicle sales and a third of all vehicles on UK roads. See Fleet News (2018) *‘SUVs account for almost a third of cars on UK roads’*; Attwood, J (2019) *‘Report: soaring SUV sales causing car emissions to rise’*. Autocar.

40 Allwood, J, et al. (2019) *‘Absolute Zero: Delivering the UK’s climate change commitment with incremental changes to today’s technologies’*. UK FIRES.

41 Allwood, J, et al. (2019) *‘Absolute Zero: Delivering the UK’s climate change commitment with incremental changes to today’s technologies’*. UK FIRES.

42 King, M (2019) *‘Freight demand will triple by 2050–new report’*. Lloyd’s Loading List.

43 See also Sims, P and Essex, J (2020) *‘Trade and Investment Requirements for Zero Carbon’*. Green House Think Tank and Green European Foundation.

44 Sims, P and Essex, J (2020) *‘Trade and Investment Requirements for Zero Carbon’*. Green House Think Tank and Green European Foundation.

emergency economy means accepting that long distance transportation will be more limited than it is currently. The current notion of shifting to a ‘circular economy’ is not compatible with a climate emergency economy because such a notion assumes globally circular materials flows. Rather than shipping waste round the world to be recycled, then re-manufacturing, material reuse needs to primarily happen locally and regionally. The ‘scale’ of circularity matters.

## The Myth of Decoupling

There are some cases where private sector investments in ‘green growth’ appear transformational.<sup>45,46,47</sup> However, whilst these successful business models have scaled up renewable energy production and separately improved resource efficiency, they have not led to a wider decoupling of the economy from environmental impacts as some have suggested is possible.<sup>48,49</sup> Aspirations of absolute decoupling are unsupported by evidence.<sup>50</sup> Continued increases in consumption (of both material products and services) is linked to continuous economic growth. This is reflected in trends in fossil fuel consumption and related CO<sub>2</sub> emissions, and in terms of resource extraction.<sup>51</sup> British economist Tim Jackson concludes his assessment of decoupling with these words: *‘Those who promote decoupling as an escape route from the dilemma of growth need to take a closer look at the historical evidence – and the basic arithmetic of growth.’*<sup>52</sup>

## Implications

If committing to a climate emergency economy means accepting environmental limits what does this mean for the rapid transition that the European economies must now undertake?

The World Bank recently highlighted the scale of the increase in resource demand, particularly in rare earth metals, for renewable energy supply (e.g. wind turbines and solar panels) and storage (e.g. hydrogen fuel cells and lithium-ion batteries).<sup>53</sup> This shows a huge increase in metal demand, such that the deployment of these technologies could be slowed or even constrained by the supply of such metals. Cobalt demand from electric vehicles is likely to exceed production by 2030.<sup>54</sup> Similarly, the growth of hydrogen fuel cell vehicles risks being constrained by the demand for platinum – current supply is concentrated in one area of Russia.<sup>55</sup> This emphasises the complexity

45 See Irena (2020) [‘Renewables Beat Even Cheapest Coal Competitors on Cost’](#) (accessed: Jan 2021).

46 See edie (2021) [‘Jaguar to switch to fully electric vehicle portfolio by 2025’](#) (accessed: Jan 2021).

47 See Interface (n.d.) [‘The Interface Story’](#) (accessed: Jan 2021).

48 Haberl, H, et al. (2020) [‘A systematic review of the evidence on decoupling of GDP, resource use and GHG emissions, part II: synthesizing the insights’](#). *Environ Res Lett* 15, 065003.

49 Hawken, P, et al. (2013) *Natural capitalism: The next industrial revolution*. Routledge.

50 Christie, I, et al. (2019) [‘Growing pain: the delusion of boundless economic growth’](#). CUSP (accessed: Mar 2021).

51 Jackson, T (2011) *Prosperity without growth*. Routledge. Figs. 5.3 and 5.5, p.86.

52 Jackson, T (2011) *Prosperity without growth*. Routledge. Figs. 5.3 and 5.5, p.86.

53 Arrobas, DLP, et al. (2017) [‘The growing role of minerals and metals for a low carbon future’](#). International Bank for Reconstruction and Development/The World Bank.

54 70% of cobalt is currently sourced from the Democratic Republic of Congo – Jones, B, et al. (2020) [‘The EV revolution: The road ahead for critical raw materials demand’](#). *Applied Energy* 280, 115072.

55 Alonso, E, et al. (2012) [‘Platinum availability for future automotive technologies’](#). *Environmental science & technology* 46:23, pp.12986–12993.



of the challenge posed, and the extent to which the different aspects of environmental considerations are interrelated. Not only have our economies become labyrinthine, but humanity does not fully understand the extent or nature of the complexity of the Earth systems our economy sits within.<sup>56</sup> There is a risk that attempting to limit flows in or out of our economy in one sector might create unintended impacts on other flows.<sup>57</sup> In order to transition to a climate emergency economy, industrialised societies must put in place laws and policies to manage the flows into and out of our economy down to safe, stable levels. For some synthetic chemicals, these levels will be practically zero. Accepting this requires our society to not only accept that it alone controls the material flows in and out of our economy, but also that our society is solely responsible for these flows and their impacts.

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56 Sheldrake, M (2020) *Entangled Life*. Penguin Random House.

57 Mudie, S (2020) '*Net Zero and Unintended Consequences*'. Carbonxgen.

## Social Requirements for a Climate Emergency Economy

This section explores the history of pollution, resource exploitation and inequality, followed by a discussion of the need for, and requirements of gaining consent in reaching a climate emergency economy. This need reinforces the idea that any sufficient transition will need to be an equitable transition.

In order to take its fair share of a global carbon budget, the UK must reach net zero by 2030 or earlier.<sup>58</sup> Whilst there is some variation in both current and historical emissions between regions, as a whole Europe must also make very substantial cuts to its emissions in coming years to have any remaining carbon budget by 2030.<sup>59,60,61</sup> This means a very rapid transition, and that significant behavioural and lifestyle changes are required.<sup>62</sup>

### Equitable Transition

Humanity, through industrialisation, has a history of disregarding any limits to resource extraction, and of exploiting people in parallel.<sup>63,64</sup> This has tended to create inequality rather than a just sharing of resources through fair trade.<sup>65</sup> Countries that engaged in colonialism (mainly perpetrated by European countries) exploited the natural resource of (at the time) less militarily powerful parts of the world for their own gain. This not only created global inequality but defined the key trading relationships and power structure between rich and poor countries that still prevails today. It has also entrenched the idea that ‘we’ (Europeans) can have what ‘we’ want, regardless of what that leaves everyone else. Despite the ‘end’ of colonialism over 50 years ago, global inequality continues to increase and has quadrupled since 1960.<sup>66</sup> Although some of this inequality takes new forms, much is best described as ‘neo-colonialism’ perpetuated by corporations and global institutions still based in the global north (notably Europe and USA) and often linked to ‘aid’ programmes and trade agreements.<sup>67,68,69</sup>

58 Jackson, T (2019), *‘Zero Carbon Sooner’*. CUSP, Working Paper 18.

59 MacKay, DJC (2009) *Sustainable Energy – without the hot air* [online] UIT Cambridge, p.13.

60 EU27 production emission per citizen in 2018 ranged from 4.8 to 20.3 tonnes CO<sub>2</sub>e: Eurostat (2021) *‘Population change – Demographic balance and crude rates at national level [DEMO\_GIND]’* (accessed: Mar 2021); Eurostat (2021) *‘Greenhouse gas emissions by source sector (source: EEA) [ENV\_AIR\_GGE]’* (accessed: Mar 2021); Eurostat (2021) *‘Greenhouse gas emissions per capita [T2020\_RD300]’* (accessed: Mar 2021).

61 EU27 2018 production emission as 3.9 Gt CO<sub>2</sub>e (Eurostat (2020) *‘Greenhouse gas emission statistics – emission inventories’*). However, it only has 15 Gt CO<sub>2</sub>e left of its ‘fair’ carbon budget if remaining global carbon budget for 1.5°C from 2020 onwards as ~250 Gt CO<sub>2</sub>e (Tokarska, K, and Matthews, D (2021) *‘Refining the remaining 1.5C “carbon budget”’*. Carbon Brief) is divided equally among global population. Taking the population of EU27 as 448 million (Eurostat (2020) *‘First population estimates – EU population in 2020: almost 448 million’*) and global population as 7.6 billion (World Bank (2018) *‘Population, total’*).

62 Carmichael, R (2019) *‘Behaviour change, public engagement and Net Zero’*. A report for the Committee on Climate Change.

63 Pavid, K (n.d.) *‘What is the Anthropocene and why does it matter?’* *Natural History Museum*. See also The Anthropocene Project website.

64 Hickel, J (2017). *The divide: A brief guide to global inequality and its solutions*. Penguin Random House.

65 Sassen, S (2014). *Expulsions: Brutality and Complexity in the Global Economy*. Harvard University Press.

66 Hickel, J (2019) *‘A response to Noah Smith about global poverty’*.

67 Langan, M (2018) *Neo-Colonialism and the Poverty of ‘Development’ in Africa*. Palgrave Macmillan.

68 RIAO-RDC (DR Congo), et al. (2021) *‘Development Finance as Agro-Colonialism’*.

69 Barbara Sennholz-Weinhardt et al, (2021) *“TOWARDS A WELLBEING ECONOMY THAT SERVES PEOPLE AND NATURE”*, Oxfam Germany e.V. and European Environmental Bureau.

***‘Wealth of European nations partly rests on exploitative global structures’***Oxfam Germany and European Environmental Bureau <sup>70</sup>

Reaching a climate emergency economy requires acknowledging this history, and that it shapes Europe’s economy today. Like other industrial regions, Europe has to make bigger reductions in resource use and pollution creation than the world average as it’s already taken its fair share.<sup>71</sup> It also must enable inhabitants of other parts of the world to take their fair share of resources and ecological space. It is important to acknowledge that some of the poorest countries, which have contributed least to causing climate change, stand to suffer the worst impacts.<sup>72</sup> Reducing inequality is, however, proven to benefit the well-being of all, rather than just the poorest.<sup>73</sup> It is the only humane way to bring about the required change. What is needed amounts to climate justice, with the fastest shift in the levels of consumption and carbon emissions taking place in the richest countries.<sup>74</sup>

Whilst it may be theoretically possible for authoritarian regimes to bring about such changes rapidly, history would suggest authoritarian leaders are unlikely to do so. In fact there are clear historical links between the exploitation of people and explorations for natural resources, and it has tended to be democratic institutions which have stepped in to check autocratic power.<sup>75</sup>

**Securing Consent**

Within democracies such broad changes require consent, even if this comes in parts: For instance, sufficient support is gained for a political programme to create a ‘political mandate’ for change. A government then implements this political programme by motivating a minority of ‘early adopters’ to lead behaviour change within the policy framework and economic changes introduced. Finally, the majority of people and companies consent by following this minority’s lead rather than resisting. So there are different stages of consent: a political mandate for a rapid transition, the minority choosing to lead the change within the policy framework created, and the majority of citizens choosing to follow that minority.

There are two important policy recommendations later in this report that might help secure this consent. Firstly, participatory democracy tools like citizens’ assemblies give the majority the idea (if not the opportunity) that they could become politically engaged and a chance to shape the rapid transition. Secondly, public information campaigns reinforce this by giving everyone the opportunity to understand the motivation behind the rapid transition and therefore to develop an informed opinion before consenting. However, there is one much bigger factor that helps build consent – the majority benefiting from the transition. Fundamentally, people are much more

<sup>70</sup> Barbara Sennholz–Weinhardt et al, (2021) “TOWARDS A WELLBEING ECONOMY THAT SERVES PEOPLE AND NATURE”, Oxfam Germany e.V. and European Environmental Bureau.

<sup>71</sup> Vandermaesen, T, et al. (2019) [‘EU overshoot day: Living beyond nature’s limits’](#) <sup>WWF</sup>.

<sup>72</sup> Intergovernmental Panel on Climate Change (IPCC) (2018) [‘Global Warming of 1.5 °C: Summary for Policymakers’](#), para B.5.1.

<sup>73</sup> Wilkinson, R, and Pickett, K (2010) *The spirit level: Why equality is better for everyone*. Cambridge University Press.

<sup>74</sup> UN (2019) [‘Climate Justice’](#). UN Sustainable Development Goals.

<sup>75</sup> E.g. the UK parliament with the East India Trading Company’s de facto rule of Indian subcontinent; the Belgian government with King Leopold II and the Congo; Canadian government’s leadership of the Montreal Protocol on CFCs.



likely to accept change if it seems to be in their interest, and they see other change as well.<sup>76</sup>

## Implications

Achieving a rapid transition to a climate emergency economy in Europe requires gaining the consent of Europe's population. Meeting global carbon budgets and pollution limits requires global consent. This means the burdens and the benefits of the transition must be borne and shared fairly across all societies globally. Today, the wealthiest 50% of the world population have already used 56% of the cumulative global carbon budget for 1.5°C, whereas the other 50% have only used 4%.<sup>77</sup> Access to and benefits from resource flows from Earth systems must be shared fairly. Equally the consequences of pollution must also be felt fairly, and the responsibility for keeping our economies within global environmental limits shared equitably. Europe's population predominantly falls in the wealthiest 50% of world population – those who have already taken more than their fair share of the remaining carbon budget.

A technology-led approach to dealing with climate change does not take this into account. By only focusing on the physical and environmental challenges, current policies and the economic strategies that result from them are attempting to create a future world within the planetary limits without including the needs of all of humanity. This will increase inequality and be too little too late.<sup>78</sup>

Whilst a technology-led approach might reduce the climate impacts of European citizens locally, unless the systems that underpin the global economy also shift, it will not stop Europe ❌ **Buying Dirty** or ❌ **Locking in Harm** long term. It will not be taking ➕ **Sufficient Action**. If Europe wants other countries and the citizens of those countries to limit their carbon emissions or stop destroying carbon sinks like forests, these other countries and citizens must get a fair share of the globally sustainable flows from and to Earth systems. They must also be paid a fair price for any resources within those sustainable limits that they choose to export to Europe. Humanity needs to see itself as in a mutually beneficial relationship with natural systems rather than only valuing what can be extracted from them. Europe's economy is related with other economies globally, through global supply chains, trade and co-dependence on the same Earth systems. Europeans must see themselves as in a mutually beneficial relationship with the rest of humanity. There is one global cumulative carbon budget, and climate change impacts know no borders.

Any climate emergency economy, therefore, is built on consent, equity, reducing inequality, and fairly sharing the benefits, impacts and responsibility of the transition required.

76 Abram, S, et al. (2020) '[Just Transition: Pathways to Socially Inclusive Decarbonisation](#)'. COP26 Universities Network.

77 Gore, T (2020) '[Confronting Carbon Inequality](#)'. Oxfam (accessed: Mar 2021).

78 Islam, SN and Winkel, J (2017) '[Climate Change and Social Inequality](#)'. UN DESA, Working Paper No. 152.

## Conditions for Change

The consequences of simultaneously addressing the multiple environmental challenges, let alone including the social ones, are profound. European societies no longer have the choice between an oppressive status quo and a naïve technological optimism.<sup>79</sup> It is true that our economy faces broader challenges than just those presented in this report, yet a shift to a climate emergency economy may also address these. There is growing acceptance that the 2008 financial crisis was fundamentally a symptom of the current economy, rather than ‘unfortunate’ or the result of ‘rogue actions’.

More significantly, however, is the continued decline in the rate at which the economic productivity of work improves, and the possibility that the successful pursuit of ‘economic growth’, as currently understood and championed, is the very thing that creates instability in our economy. To quote economist Tim Jackson again: *‘The injustice of bailing out the architects of the crisis at the expense of its victims has become plain for all to see.’*<sup>80</sup>

So with questions about whether the status quo is viable, let alone likely to deliver stable prosperity, combined with the pressing need for a climate emergency economy, there would appear to be the conditions for transformative change.<sup>81</sup>


This change has to involve transforming economic structures, combined with shifting what our society values. This is less about redefining our values as individuals, and more about an alignment of our society’s cultural and economic systems with fundamental human values. Our current economy is based on a narrow view of human nature which assumes people will always act in their individual financial interest. Yet humans are a complex mixture of selfish and altruistic behaviour. Recognising this, and shaping society based on sound understanding of human needs and drives, will open up new possibilities and help to define a clear vision of what a climate emergency economy would look like.





79 Turner, A (2020) [‘Techno-optimism, behaviour change and planetary boundaries’](#). Keele World Affairs, Lectures on Sustainability.

80 Jackson, T (2016) [‘Beyond Consumer Capitalism—Foundations for Sustainable Prosperity’](#). CUSP, Working Paper No 2.

81 Jackson, T (2018) [‘Understanding the “New Normal” — The Challenge of Secular Stagnation’](#). CUSP and [All Party Parliamentary Group on Limits to Growth](#), An Economy That Works, Briefing Paper No.1.

## Our Government and Society Must...

To take  **Sufficient Action** to ensure that our economy operates within environmental limits and achieves the social requirements outlined above, our government and society must:


-  **Manage Demand** for goods, services and activities such that resource and energy demand can be met using only renewable sources.
- Focus on  **Quality not Quantity** so that well-being can be maximised with sustainably available materials.
- Stop rubbish inputs, that lead to rubbish outputs ( **Rubbish in Rubbish out**) by removing the economic incentive to maximise throughput in our economy.
-  **Empowering Local Solutions** so that the shift to a sustainable future is fair and equitable and can occur as rapidly as possible.

These interventions form part of the Zero Carbon Policy Toolkit<sup>82</sup> proposed by this project.



### Managing Demand

The key areas where demand needs to be managed are in hard-to-decarbonise sectors such as aviation, shipping, heavy road transport (i.e. lorries), and greenhouse-gas-intensive / energy-intensive materials (e.g. cement/concrete, refining metals from ores).<sup>83</sup> There are also materials or activities where demand needs to be managed to ensure resources are used at sustainable rates so that future generations have access to them. Key examples would be fishing, phosphorus<sup>84</sup> (fertiliser), and metals such as lithium for batteries or rare earth metals for electrification.<sup>85</sup> Managing demand requires structural changes to our economy together with behavioural change. People will not change their demand sufficiently unless the economic, physical, organisational and cultural motivations for that demand are reformed.<sup>86</sup> It is important to recognise that managing demand can be divisive. However, the political conversation around managing demand is also a critical part of facing up to the fact that humanity is not in complete control. As explored in 'Social Requirements for a Climate Emergency Economy' accepting external limits not easy, and for many generations our society has denied the need to do so.

Managing demand firstly requires acknowledging that, although people might not like to be denied something, what feels worse, and builds resentment in societies, is when people are unable to have something that advertising or culture tells them they need or deserve.<sup>87</sup> Secondly, as explored below in enabler  **Empowering Local Solutions**, people are much more likely to support changes like demand management

82 Green House Think Tank (2020) 'Enablers and Blockers of Zero Carbon: Policy Toolkit'.

83 Allwood, J, and Cullen, J (2012) *Sustainable Materials: With Both Eyes Open*. UIT Cambridge.

84 Cho, R (2013) 'Phosphorus: Essential to Life—Are we Running Out?'. *State of the Planet*; MIT (n.d.) 'Fighting Peak Phosphorus'.

85 Woody, T (2019) 'The sea is running out of fish, despite nations' pledges to stop it'. *National Geographic*.

86 DEMAND (2015) 'Reducing demand for business'. Research insight no. 13.

87 Sims, P (2021) 'A proposal for restricting manipulative advertising in public spaces'. *Green House Think Tank*, pp.30–31.



if they have an opportunity to understand and input into the decision-making. Lastly, if people are ‘citizens’ (as opposed to consumers) and it’s ‘our economy’ (rather than ‘the economy’), space can be created for them to act like empowered actors as part of the system, rather than economics being something that’s done to people.<sup>88</sup> This needs political leadership.<sup>89</sup>

### Policy Recommendations:

- Intervene in the economy to address factors which motivate unsustainable demand – for example, replacing ‘predicting and providing’ infrastructure for demand growth with planning policies and investment strategies that constrain demand. See blocker ✖ **Asking the Wrong Questions**.
- Before managing the supply in any area, ensure demand isn’t inflated by advertising.
- Use public information campaigns to give citizens the choice to change their behaviour (see enabler ➕ **Changing Culture**).
- Use citizens’ assemblies and other forms of participatory democracy to build public support and engagement in areas where demand needs to be managed (e.g. aviation, meat consumption, car ownership) (see enabler ➕ **Empowering Local Solutions**).
- Revise monetary policy and regulation of financial institutions so that central banks can discourage lending to unsustainable activities.<sup>90</sup>
- The last resort (which mustn’t be shied away from), if the above is not enough to deliver ➕ **Sufficient Action**, is to directly subsidise reducing demand or taxing consumption in key areas (see ➕ **Taxing Harm** and ➕ **Public Money for Public Goods**).



## Quality not Quantity

If the goal in our society is to maximise happiness, fulfilment and quality of life for all, as well as keeping within environmental limits, then our society, and therefore our economy, must stop pursuing quantity at all costs.<sup>91</sup> (See ✖ **Asking the Wrong Questions**.)

If quality of life is the goal then our economy needs to value how people spend their time, and interact with each other. What this will look like will vary culturally as it relates to individual expectations.<sup>92</sup> However, people commuting to work alone by car (particularly when stuck in traffic) and having long commutes does not improve anyone’s quality of life. Yet before the pandemic the length of the average commute was still rising.<sup>93</sup> In the UK car miles must reduce to reach zero carbon, and a shift to shorter commutes and more walking, cycling, car sharing and public transport would

88 Mair, S (2021) ‘COVID-19 and the Economic Stories of our Time’. CUSP (accessed: Mar 2021).


89 DEMAND (2018) ‘Pathways of change: Cool Biz and the reconditioning of office energy demand’. Research insight no. 17.

90 Nick Robins, et al (2021) ‘Net-zero central banking: A new phase in greening the financial system’, LSE, policy report.

91 Mair, S (2021) ‘COVID-19 and the Economic Stories of our Time’. CUSP (accessed: Mar 2021).

92 WHO (2021) ‘WHOQOL: Measuring Quality of Life’ (accessed: Mar 2021).

93 Gallagher, S (2019) ‘Average commute now takes 59 minutes with workers travelling longer than ever before’. Independent.

not only improve people's lives but also reduce carbon emissions. Businesses and our economy more widely must also shift to valuing existing assets and extending their useful lives (see  **Making Things That Last**). A shift towards repairing, repurposing, customising and upgrading everything from personal possessions and furniture through to vehicles, buildings and industrial machinery has wider implications. It enables reduced demand, and in parallel motivates products to be built to last, and designed to be repairable/upgradable whilst shifting economic activity to the local scale.<sup>94</sup>

#### Policy Recommendations:

- Introduce strong product regulations such as the right to repair, 10+ year guarantees as standard, 25+ year servicing requirements.<sup>95,96</sup>
- Reform advertising to reduce the motivation to maximise quantity of consumption.<sup>97</sup>
- Focus economic incentives on import substitution. Direct the public sector to prioritise local, sustainable procurement. Phase out 'free trade zones' and stop pursuing trade agreements based on comparative advantage.<sup>98,99</sup>
- Set high food and environmental standards. Restructure farming subsidies to incentivise sufficient high quality food production to meet local demand.<sup>100</sup>
- Investigate how companies can be incentivised to recruit locally, or facilitate employee relocation or remote working to minimise commuting.



### Rubbish in, Rubbish out

The current global economy is mostly structured as a linear system where society *takes* resources from the Earth, *makes* them into products, and then these *break* and return waste to Earth systems as pollution. The worst examples of this linear process could be thought of as 'rubbish in, rubbish out'. For instance, shipping soya grown on deforested rainforest around the world to feed to intensively reared cattle to produce large volumes of low quality beef. Or using oil to make plastic to produce toys or furniture which are discarded with only limited use. This is referred to as built-in or planned obsolescence, or disposable goods.

It is critical that societies address the root causes of these issues, which are often the input flows or infrastructure that facilitates them, rather than focusing on the symptoms alone (e.g. marine pollution<sup>101</sup>). A climate emergency economy should internalise the costs of investment decisions that drive new infrastructure and factories, as well as the failure to reuse and repurpose products at the end of their lives. It is the

94 As repairing, customising, upgrading and maintaining are by necessity local activities.

95 Cooper, T (ed.) (2010) *Longer Lasting Products: Alternatives to the Throwaway Society*. Gower Publishing.

96 IFIXIT (n.d.) '[Repair Manifesto](#)' (accessed: Mar 2021).

97 Sims, P (2021) '[A proposal for restricting manipulative advertising in public spaces](#)'. *Green House Think Tank*, pp.30–31.

98 Comparative advances in practice is the pursuit of specialisation locally whilst relying on global markets to source what the local economy does not specialise in.



99 Hildyard, N, and Sol, X (2017) '[How Infrastructure is Shaping the World: A Critical Introduction to Infrastructure Mega-Corridors](#)'. *The Corner House and Counter Balance*.

100 (2020) '[A Question of SCALE](#)'. Green European Foundation.

101 Léraud, I (2021) '[The Green Tides of Brittany](#)'. *The Land* 28.

demand for materials such as plastics, as well as fuels, which underpins investment in new fossil fuel extraction.<sup>102</sup>

### Policy Recommendations:

- Invest in infrastructure that transforms systems, rather than just changing products – e.g. eliminate the need for single-use plastic packaging through supply chains rather than just improving recycling.
- Explicitly define in law the nature of investment intermediaries' fiduciary duty to act in the longer-term and wider interests of savers and investors.<sup>103</sup>
- Target public information campaigns and education on the root causes of pollution and resource depletion.
-  **Tax Harm**, so that  **Buying Dirty** isn't the cheapest option.
- Restructure farming subsidies to discourage imported animal feed and reduce dependence on artificial pesticides and fertilisers.



## Empowering Local Solutions

There is some truth in the phrase 'the future is local'. However, local and regional communities must be empowered by governments at all levels for 'local' solutions to be realised. People are more likely to change, and change fast, if they feel involved in deciding not just what that change is but how it is implemented.<sup>104</sup> This does not mean that the entire population needs to agree to every change but, as explored above, consent is important.

People are also more likely to engage actively in change at transition points in their lives (e.g. moving house, getting married, becoming a parent).<sup>105</sup> Local governments, community organisations and public bodies need to take the opportunities these transition points in people's lives offer to engage them in the transition. Such changes can trigger transformation throughout the wider population but will not be sufficient alone. Empowering local solutions must include the government removing social, financial and environmental barriers to change.<sup>106</sup> Key barriers, such as limited time or money, will affect some groups in society more than others.<sup>107</sup> This reflects the need for a fair as well as rapid transition, such that the majority can both afford and are practically able to participate.

Where and how decisions are made matters. Strong local and 'bioregional' economies will be created through participatory decision-making that takes place at the lowest possible level. Transparency and accountability at both the local and national level is critical. This will help strengthen society's response to the transition to zero carbon and ability to adapt to future climate and ecological changes.<sup>108</sup> It is

102 Carbon Tracker (2020) '[The Future's Not in Plastics: why plastics demand won't rescue the oil sector](#)'.

103 Seaford, C (2019) '[Investment for a sustainable and inclusive economy—Proposed changes to UK law](#)'. CUSP.

104 Whitehurst, J (2016) 'Decisions are more effective when more people are involved from the start'. *Harvard Business Review*.

Maor, D (2017) 'The people power of transformations'. *McKinsey & Company*.


105 NICE (2007) '[Behavioural change: general approaches](#)' – Although it is noted that alone these points are unlikely to represent a sufficient response (e.g. we cannot only carry out home retrofits when people move house).

106 NICE (2007) '[Behavioural change: general approaches](#)'.



107 Baker, J (2020) '[Climate Change Behavioural Insights: Final Report](#)'. Hampshire County Council.

108 Lonsdale, K, et al. (2015) '[Transformative adaptation: what it is, why it matters & what is needed](#)'. UKCIP.





questionable whether  **Sufficient Action**<sup>109</sup> to reflect the climate emergency is possible without greater delegation of powers, entrusting local politicians and communities to make the changes that best respond to these global challenges in ways that reflect local circumstances.

This means that planning for a climate emergency economy involves giving local communities the resources to transition to zero carbon, create jobs and build their resilience, but accepting that the way this happens and issues that need to be addressed will vary between communities.

Empowering local solutions allows our economy to localise where possible. Prioritising local procurement (including of energy) can strengthen local and regional economies.<sup>110,111</sup> Local communities and regions can always collaborate and pool resources where appropriate, but if national government doesn't devolve powers and contracts, procurement will always happen in a centralised way, which often is  **Choosing the Wrong Scale**. Decentralisation not only allows more scope for regional resilience through regional supply chains, but will strengthen the distinctiveness and diversity of communities, reinforcing local and regional character and identity (see  **Changing Culture**).

#### Policy Recommendations:

- Use citizens' assemblies to engage people in decision-making about how to respond to the challenges presented and, critically, provide a mandate to elected politicians to take bold action.<sup>112</sup>
- Shift more power, autonomy and responsibility (e.g. for managing their share of environmental limits) to local and regional levels.
- Carry out public information campaigns (local, regional and national) to engage people in decision-making and resulting transition (see  **Managing Demand** and  **Changing Culture**).<sup>113</sup>
- Reduce inequality within countries. Policies should include redistributing the revenues from taxation and wealth (e.g. carbon tax with dividend and Land Value Tax<sup>114</sup>), and public investment to reduce the burden on the most vulnerable in society (e.g. targeted support within universal retrofitting programmes).
- Reduce inequality between countries, including through restructuring trade agreements, infrastructure strategies and pandemic economic recovery plans to explicitly reduce both emissions and inequality.<sup>115</sup>

109 Sims, P, and Essex, J (2020) '[Infrastructure Requirements for Zero Carbon](#)'. *Green House Think Tank and Green European Foundation*.

110 See CLES (n.d.) '[The Preston Model](#)'.

111 See the [Place-based Climate Action Network](#) (PCAN) website.

112 The Week (2019) 'The Overton window explained'; Extinction Rebellion Citizens' Assemblies Working Group (2019) 'The Extinction Rebellion Guide to Citizens' Assemblies'.

113 DEMAND (2019) '[Fixed or Flexible?](#)' Research insight no. 20.

114 Stratford, B, and O'Neill, DW (2020) '[The path to a doughnut shaped recovery](#)'. *Policy Leeds* (University of Leeds).

115 Traidcraft Exchange (2021) '[Getting in on the ACCTS: How the UK can use its independent trade policy to tackle climate change](#)'.

- Ensure transparency and accountability for all transition funding and decisions through maximum disclosure, and that public funding is available to make relevant parts accessible to the public for scrutiny.
- Prioritise investment in the creation of decent jobs and retraining to deliver a just transition.<sup>116</sup>

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<sup>116</sup> Chapman, A, et al. (2018) '[Unlocking the Job Potential of Zero Carbon](#)'. Green European Foundation, Greens/EFA Group and Green House Think Tank.

## Conclusion

The problem of climate change cannot be solved with technology alone and neither can it be ignored. Climate change and biodiversity loss must be the motivation to choose now to be the moment to reshape European society's social and economic structures to better reflect the nature of humanity and our collective values. This must combine long-term vision and concerted short-term actions.<sup>117</sup> It must represent an emergency response in line with the urgency demanded.<sup>118</sup> Transition to a climate emergency economy must be made our society's primary priority, not an add-on.

The transition must empower local communities and regional governments to deliver the changes required, yet there is a critical role for central government to lead and facilitate. It must give everyone the opportunity to have a meaningful purpose in life as well as having their basic needs met. Good jobs can provide that purpose, so there may be a role for the government as 'employer of last resort'.<sup>119</sup> There is no shortage of work involved in the rapid transition that is required. Last but not least, it must reduce inequality so the transition is equitable. This will require rethinking the nature of enterprise, the value of work, the structure of investment and the role of money.<sup>120</sup>

Today our economies combine to form a complex global system, within even more complicated Earth systems that humanity doesn't fully understand. This must be acknowledged and accepted or our society will continue to oversimplify the problems it faces and therefore be unable to address them. However, our economy is neither a system beyond our control or inspection, nor an entity that needs appeasing. Our economy's only purpose is to serve our society. Reclaiming the narrative around our economy is critical to reaching a climate emergency economy.<sup>121</sup> Only then can a path to shared prosperity within the limits defined by Earth systems become clear.

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117 Aldersgate Group (2020) '[Building a net zero emissions economy: Next steps for government and business](#)'. CUSP.

118 Essex, J (2020) '[What would a UK climate emergency plan that faces up to climate reality look like?](#)' *Green House Think Tank*.

119 CUSP (n.d.) '[Building an economy that works](#)'.


120 Jackson, T (2016) '[Beyond Consumer Capitalism—Foundations for Sustainable Prosperity](#)'. CUSP, Working Paper No 2.

121 Mair, S (2021) '[COVID-19 and the Economic Stories of our Time](#)'. CUSP (accessed: Mar 2021).



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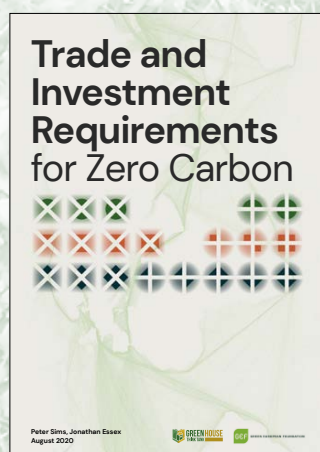
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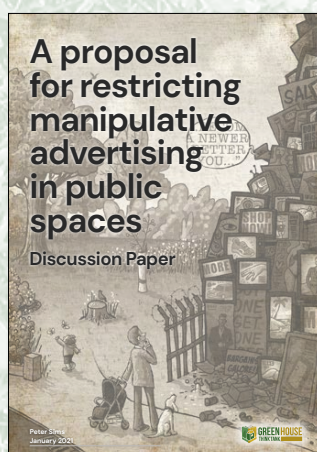
 [GEF\\_Europe](#)

Our economy is not currently zero carbon, stable or sustainable, even in economic terms. What interventions are required to deliver the rapid transition required? What must these interventions achieve and how should these requirements be defined? This report explores measures introduced in Green House's Zero Carbon Policy Toolkit.

#### RELATED WORK



**Trade and Infrastructure Requirements for Zero Carbon: Technical Annex**  
August 2020



**A proposal for restricting manipulative advertising in public spaces**  
January 2021



**What would a UK climate emergency plan that faces up to climate reality really look like?**  
May 2020