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Inclusive Growth & the "doughnut model" for economic recovery

Dr James Hall

Dr Suzanne Bartington

Professor John Bryson

Tuesday 10th November

10.00 – 13.00

Structure of the morning

10.00am *"Rethinking Economics"* by Dr James Hall

10.30am *"Introducing the Doughnut Model"* by Dr James Hall

11.00am *"Covid-19 and the Economy: Forms of life and the tensions between the biological, the biographical and the environmental"* by Professor John Bryson

11.30am Break

11.45am *"Sustainable development in the UK: Environmental policy"* by Dr Suzanne Bartington

12.00pm *"Embracing the Doughnut model to guide post-coronavirus recovery: Amsterdam case-study"* by Dr James Hall

12.30pm Breakout Groups: *"Local applicability of the model"*

12.55pm Summary and close

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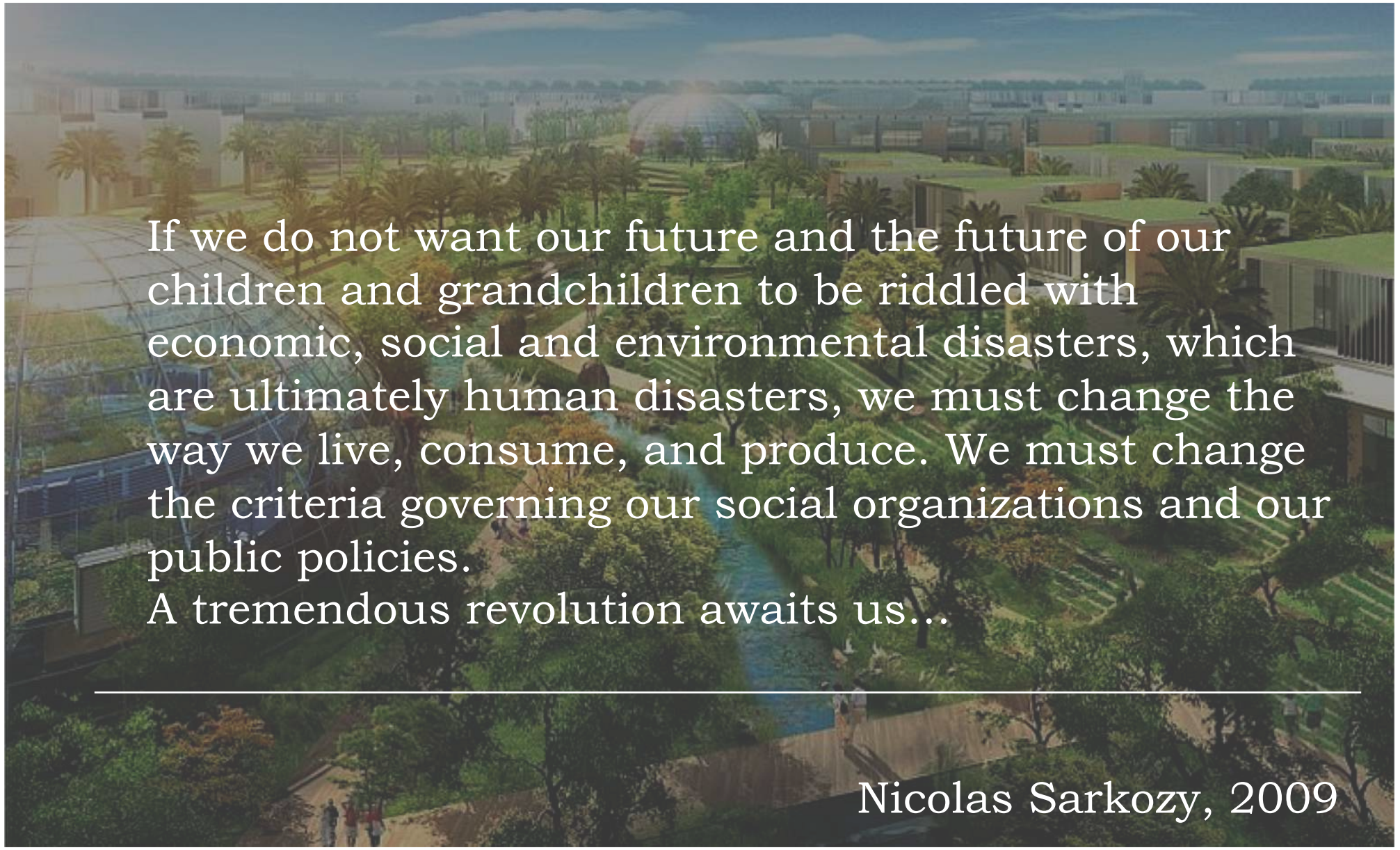
Rethinking Economics

- Inclusive growth for recovery, invites us to think beyond pandemic, and ask “what form we would like recovery (stimulus) to take?”

- Different question to trade-offs between economists & epidemiologists being addressed currently (See Economics Observatory, 2020; Bennett Institute, 2020; for holistic approaches)

- Not only restoring livelihoods immediately – recovery via investment with emphasis on reducing likelihood of future crises and building resilience

- Doughnut model provides alternative evaluative space to guide policy on broader terms, climate resilience, focus on wellbeing and inclusiveness


If we do not want our future and the future of our children and grandchildren to be riddled with economic, social and environmental disasters, which are ultimately human disasters, we must change the way we live, consume, and produce. We must change the criteria governing our social organizations and our public policies.
A tremendous revolution awaits us…
Nicolas Sarkozy, 2009

Economics & historical context

- In order to understand the motivation for the doughnut model we must first revisit the past to understand emphasis of GDP.
- These early economists, were writing during times where absence of affluence was the primary barrier to flourishing
- We have now left behind an era of small flows of energy and matter relative to the capacity of natures sources and sinks
- Samuelson published Economics in 1948, the most influential economics textbook, economy was ten times smaller

Economics & historical context

- In early 20th century economics moves away from value-based criteria;

"Economics is the study of how society manages its scarce resources, erasing questions of ends or goals from the page" (Mankiw, 2012)

- Since 1930 mainstream economics, and policymaking community fixated on GDP growth, as leading indicator of economic health

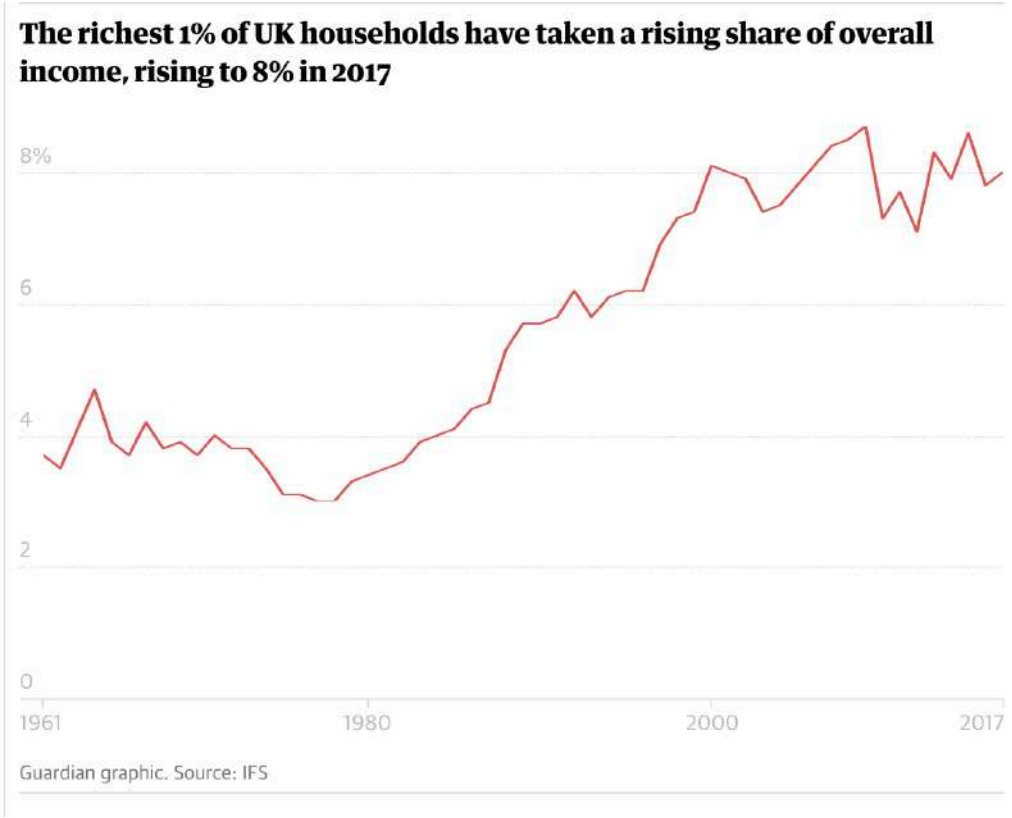
- Latter part of 20c idea that growth would alleviate inequality and environmental destruction

Inequality and environmental degradation

21st century challenges

Inequality in UK

- The UK has one of the highest GINI coefficients in Europe, and indeed the OECD
- Share of income going to top 1% of UK households has more than doubled since 1980
- Average chief executive pay has risen 47 times that of average worker since 1998



Source: IFS (2020)

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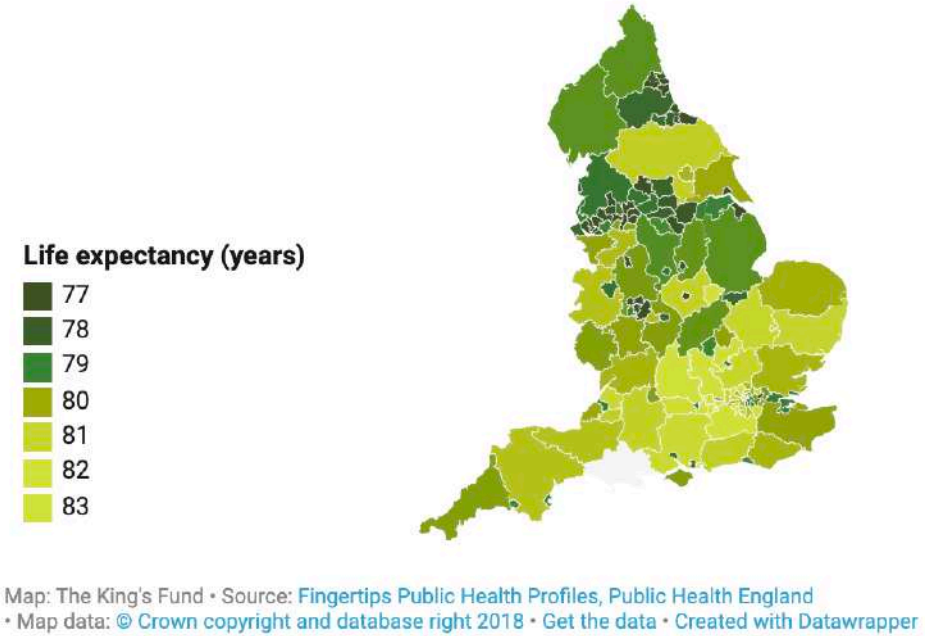
Inequality health in UK

- Males in the least deprived areas can live 9.4 years longer than Males in most deprived areas. Females the gap is 7.4 years.

- As growth in life expectancy has stalled, inequalities have widened, with life expectancy falling for those in most deprived areas.

Figure 3 Life expectancy at birth (male) by local authority in England, 2015–17



Map: The King's Fund • Source: Fingertips Public Health Profiles, Public Health England
• Map data: © Crown copyright and database right 2018 • Get the data • Created with Datawrapper

Source: Kings Fund (2020)

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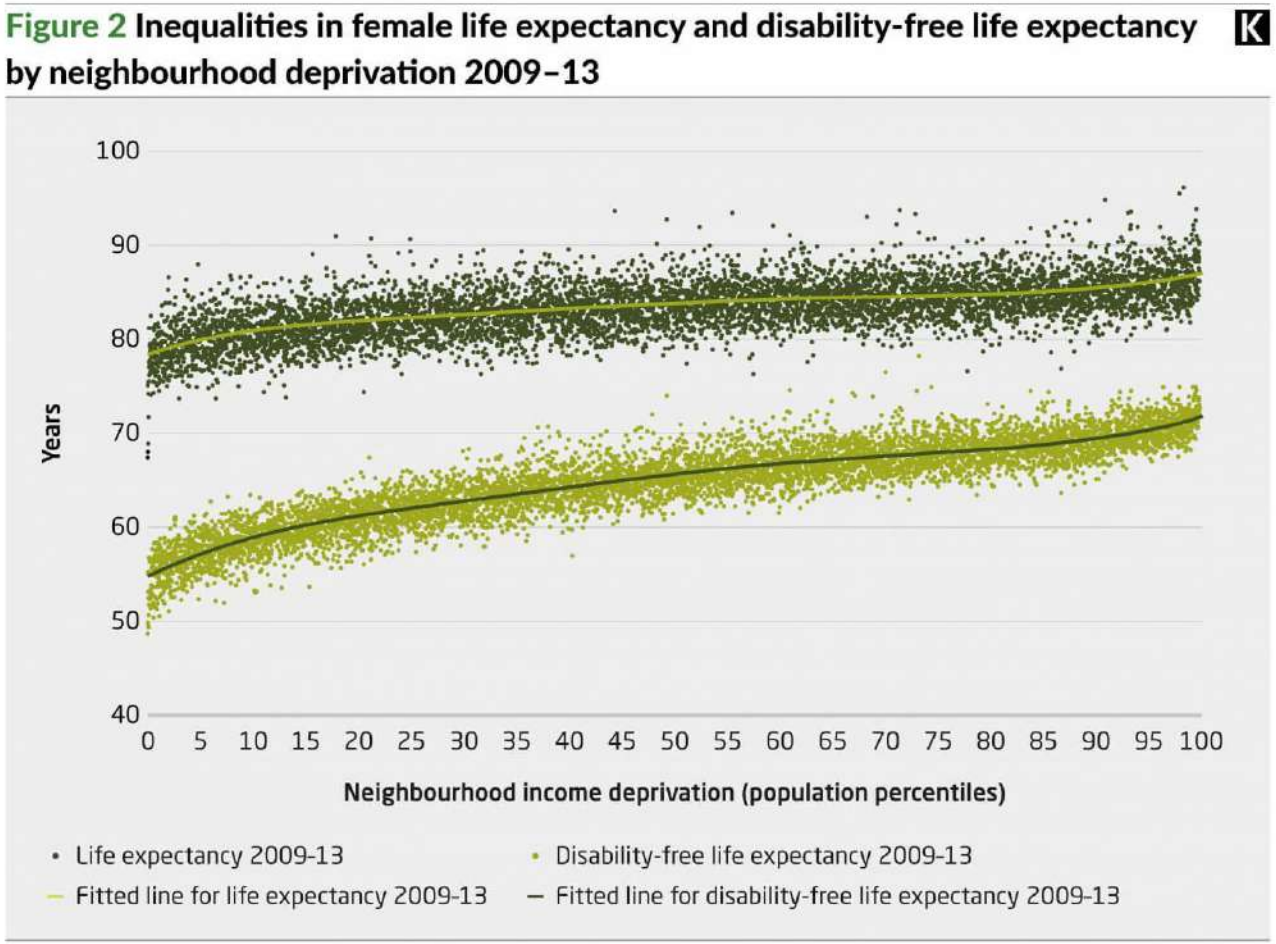
Health Inequality in UK

- Inequalities in healthy life expectancy wider than life expectancy. Intractable ?
- People living in least deprived areas have 19 more years disability-free than most deprived areas
- Similar for avoidable mortality, long-term health conditions, mental illness, access to healthcare, etc.



Source: Kings Fund (2020)

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Health Inequality in UK

- Income and stress effects of low incomes
- Poor quality, cold, and overcrowded housing
- Lack of access to good-quality green space
- Exposure to air pollution, costs average of 6 months of life
- Education levels, graduates live 5 years longer
- Unemployment

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Major UK Environmental Challenges

- Climate change related weather events, e.g. floods and storms continue to increase in severity and prevalence
- UK Global material footprint risen 35% since 1990
- By 2040 there will be more plastic than fish in our seas
- Lack of progress towards healthy waters by 2027
- Relative to OECD countries, UK air is dirty, Geographical inequalities in air quality.

COVID 19- Is mainstream economics fit for purpose ?

Mentimeter

What is the most pressing problem economists today should be addressing?

Single honours

127

Source: Stefani Fuentes (2020) @steffie_pf

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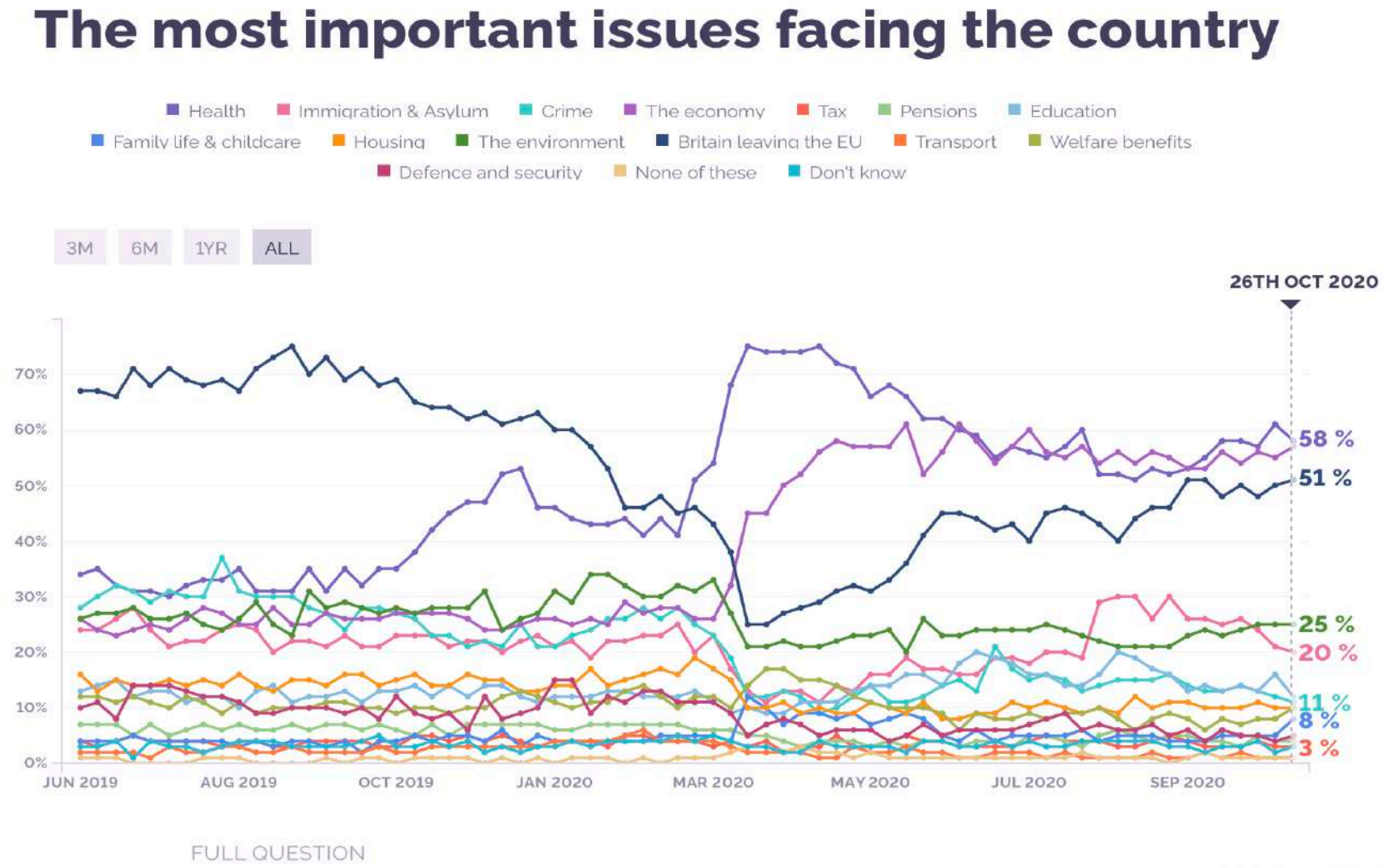
COVID 19- Is mainstream economics fit for purpose ?



Source: YouGov (2020)

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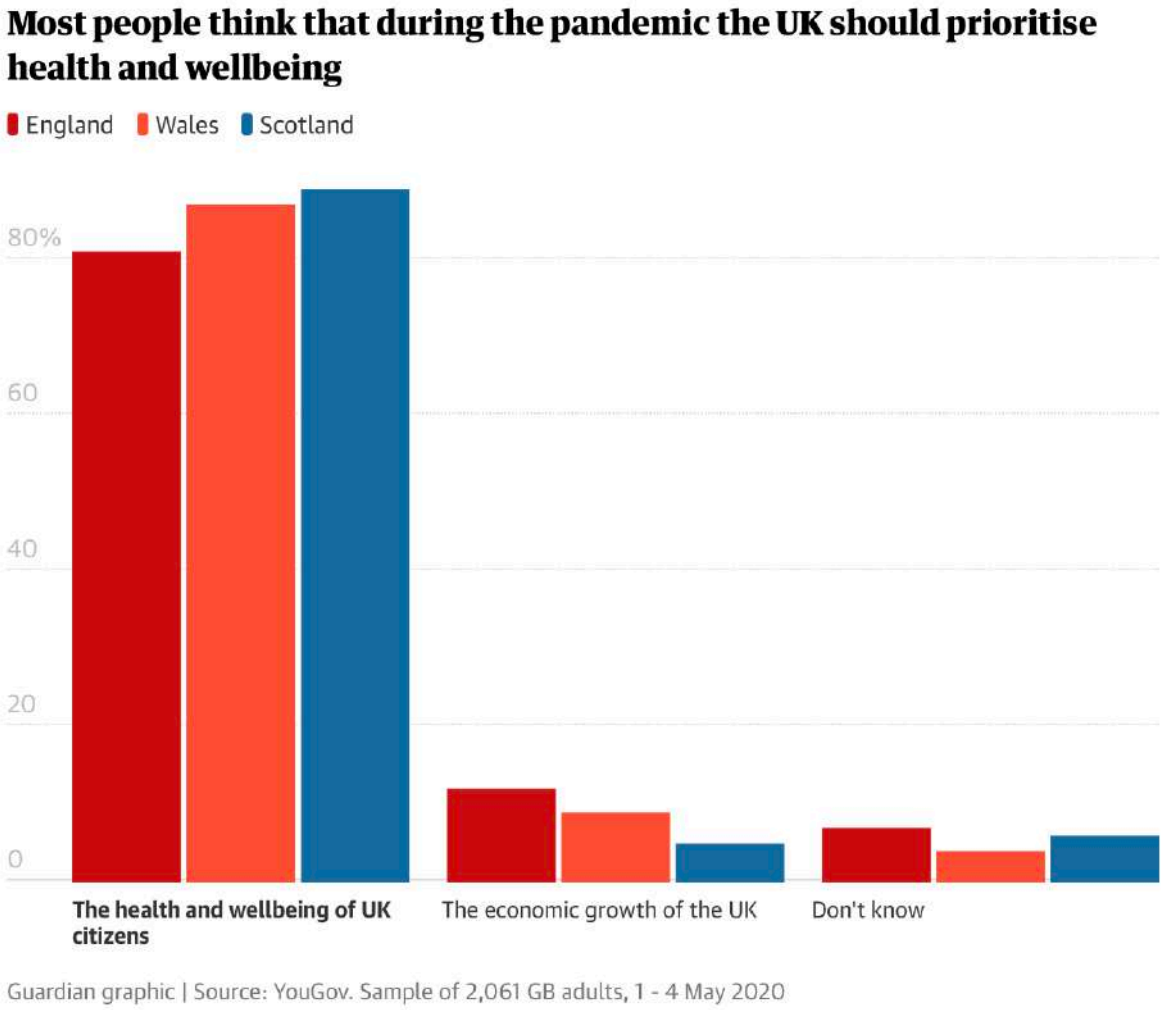
COVID 19- Is mainstream economics fit for purpose ?

"60% would still want the government to pursue health and wellbeing ahead of growth even after the pandemic"

COVID-19 recovery offers the opportunity to nudge towards policy changes….



Source: Harvey (2020)

COVID 19 - Time for a new model

"Humanity faces formidable challenges, in no small part thanks to the blind spots and mistaken metaphors of outdated economic thinking that we have ended up here" (Raworth, 2017)

Returning to "business as usual" will not deliver a sustained long-term economic recovery that also improves well-being and reduces inequality (OECD, 2020)

"what if we started economics with humanities long-term goals and sought out the economic thinking that would enable us to achieve them"

(Raworth, 2017)

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The Doughnut model

Source: BBC (2020)

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OECD Website

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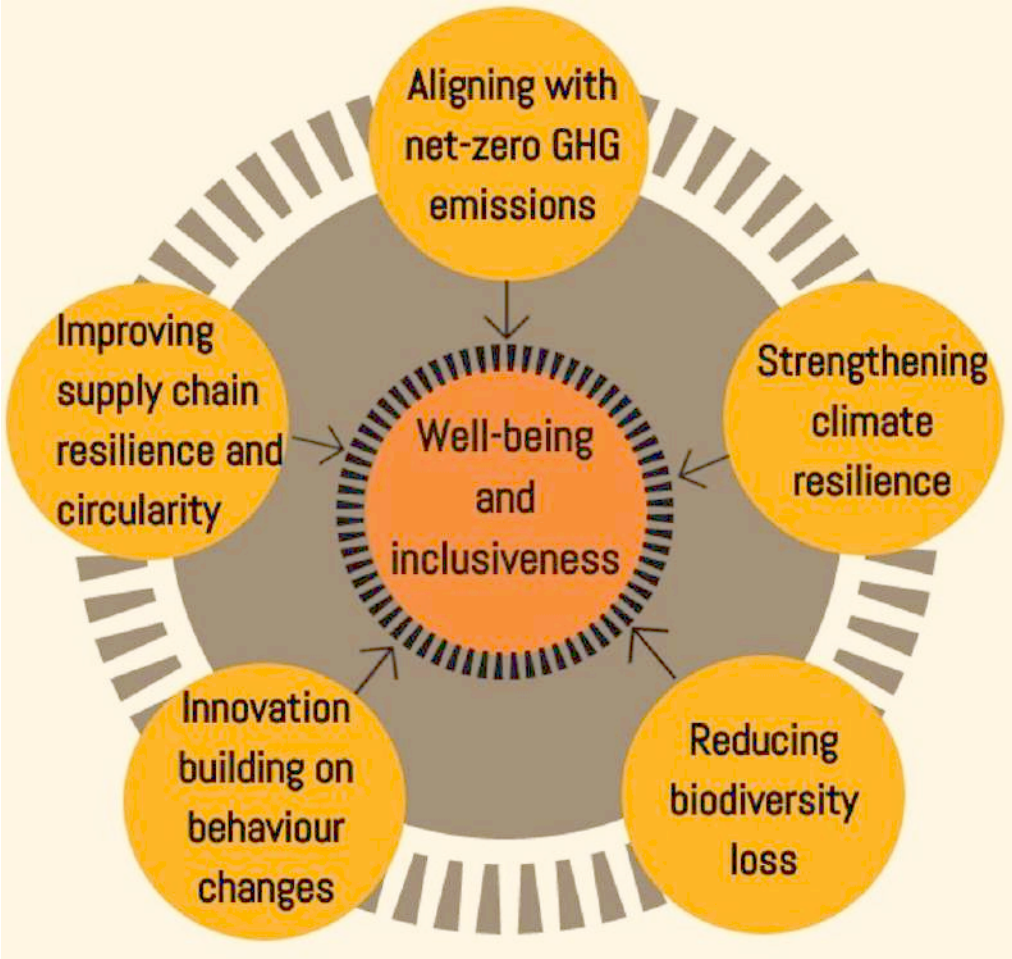
OECD Building Back Better

- Sustainable Growth Agendas espoused by G20, OECD, World Bank, World Economic forum
- Doughnut model resembles OECD Build Back Better (2020) guidance
- Some acceptance of this new agenda, certainly in relation to agreeing upon a broader set of economic policy objectives



Source: OECD (2020)

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What have we learnt so far ?

- We can think about what type of recovery we want to have
- Ignored by mainstream economics, inequalities and environmental degradation are now primary concerns, for policymaking community, as well as broader public
- Acceptance that old model has failed, and increasing acceptance of inclusive and sustainable growth agendas
- Doughnut model could influence the way we think about our economic recovery

Questions ?

The Doughnut model

- Identify the essential components of the model
- Understand how it could be applied as a measurement tool, but also a guide for policy
- See how the model could be applied to evaluate Promoting Active Travel as as an applied policy example.

The Doughnut model

- Calls for seven changes to approaching policy design

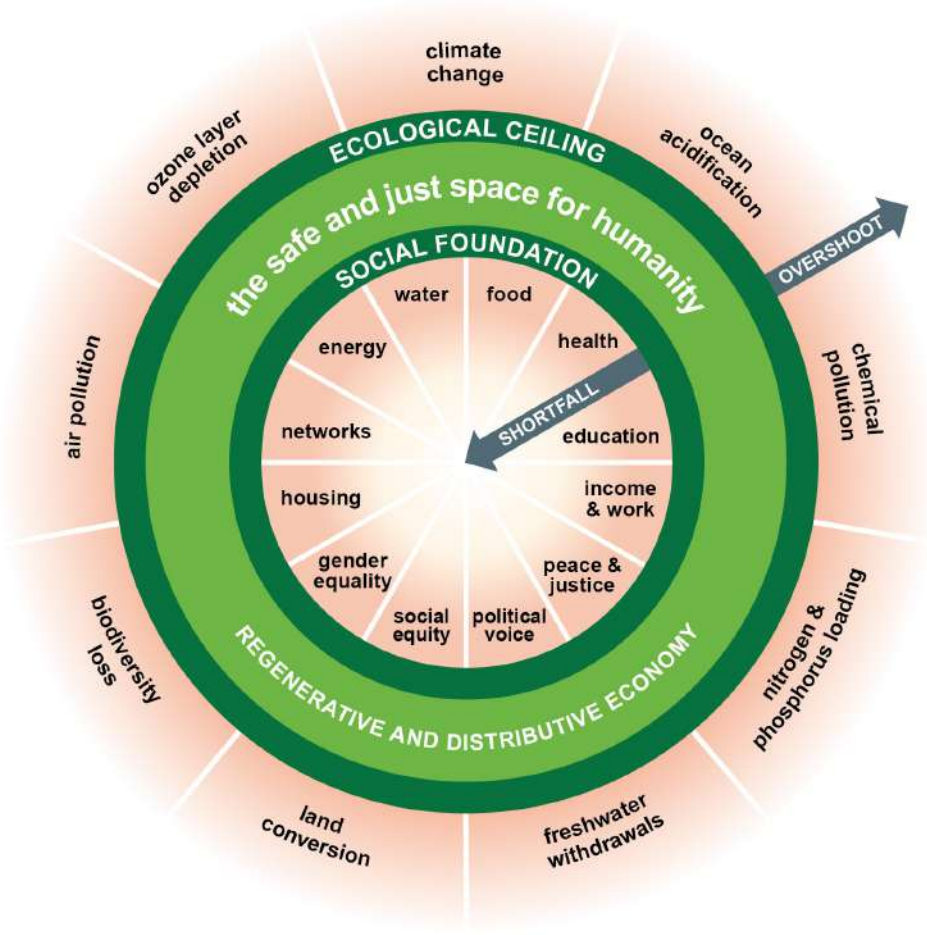
1. Change the goal of economic policy
2. Be agnostic about growth
3. Design to redistribute
4. Create to regenerate
5. Understand the economy is broader than self-contained markets

- 2 are more technical economic debates, but I will allude to them

6. Nurture human nature instead of assuming human hyper rationality
7. Move to understanding economies as complex systems

1. Changing the goal of economic policy

- Below the Doughnut's social foundation lie shortfalls in human wellbeing, faced by those who lack life's essentials
- Based upon 2015 UN Sustainable Development goals, agreed by 193 member countries
- Beyond the ecological ceiling lies an overshoot of pressure on Earth's life-giving systems
- Between the two spots is a sweet spot, ecologically safe and socially just spot



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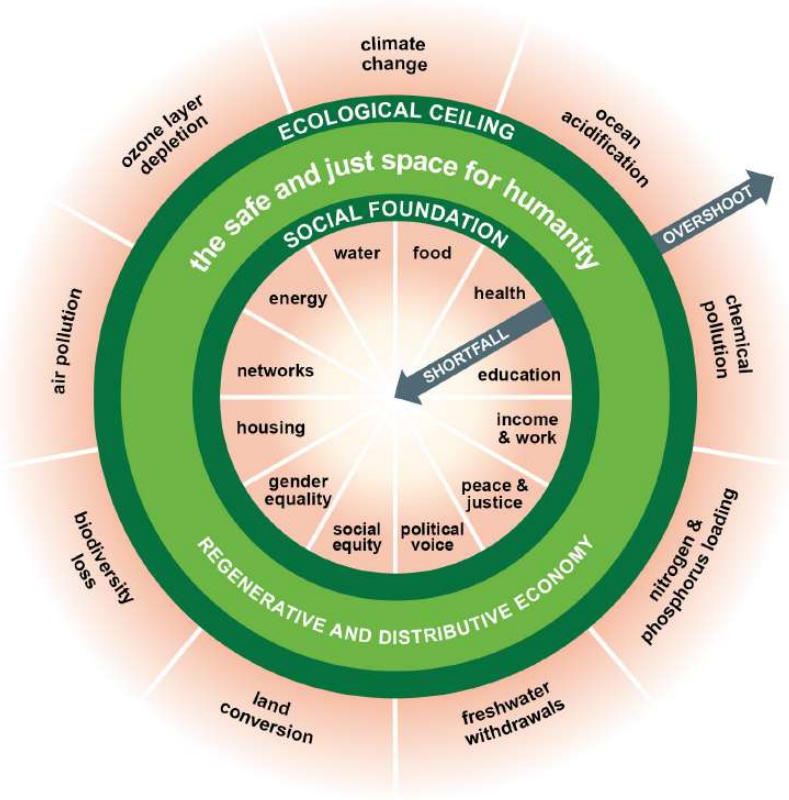
Maintaining environmental stability in living planet

- Earth scientists identify 9 critical planetary boundaries maintain stability in the living planet and define Doughnut's ecological ceiling.

- Climate change
- Air pollution
- Ozone layer depletion
- Biodiversity loss
- Land conversion
- Freshwater withdrawals
- Nitrogen & phosphorus loading
- Chemical pollution
- Ocean acidification



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2. Be agnostic about growth

- Kuznets (1955) knew GDP excluded value & inequities in distribution: "the welfare of a nation can scarcely be inferred from a measure of national income…distinctions must be kept in mind between quantity and quality of growth, between costs and return, and between short and long term"

- One simple measure for "progress" was too much for politicians, GDP growth shifted from policy option to political necessity

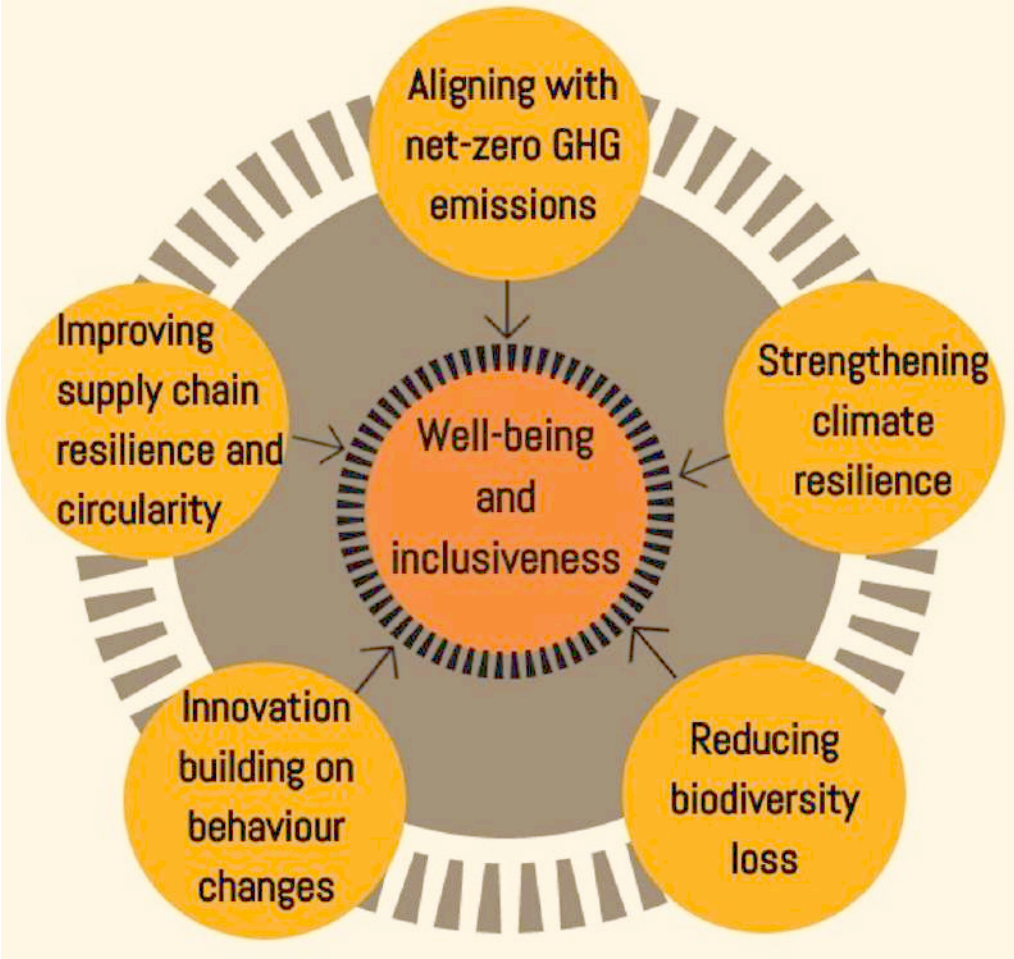
- Once growth was considered essential to alleviating social problems

- In the context of today's social and ecological crises single narrow GDP metric should not command international obsession

OECD Building Back Better

- "At the heart of this approach is transition to more inclusive, more resilient societies with net-zero GHG emissions and much reduced impacts on nature"

- OECD, 2020



Source: OECD (2020)

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3. Design to distribute

- Economists now understand that there are a myriad of ways to design economies to be more distributive of human value

- This involves moving beyond simple redistribution of income, but wealth, health, technology, knowledge, skills & even the power to create money

- St Gallen, introduced time banking in 2012 to provide more care for elderly. It's scheme, Zeitvorsorge, invites every citizen over 60 to earn "time-care credits" by helping elderly residents with everyday tasks.

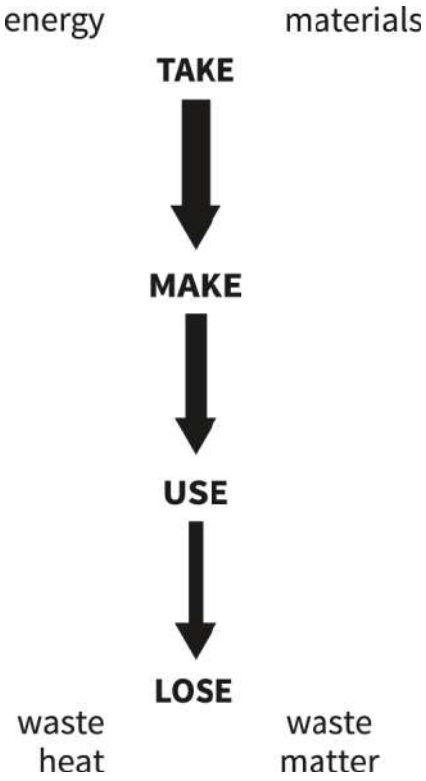
- Zeitvorsorge distributes initial stock of credits to city's most needy, distributive from the outset. Each carer may earn up to 750 hrs of time credits, with council acting as guarantor in cash should scheme fail.

4. Create to regenerate

- The past 200 years of industrial system design based upon degeneration; take, make, use, lose earth's minerals, metals, and biomass; manufacture into products; sell those onto consumers who then throw them away.

- Environmental degradation is the result of degenerative industrial design (Raworth, 2017)

- "For economic recovery from COVID-19 to be durable and resilient a return to 'business as usual' environmentally destructive investment patterns must be avoided" (OECD, 2020)



Source: Raworth (2017)

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5. See the bigger picture

- **The Earth which is life-giving, so respect its boundaries**
- Society, which is foundational, so nurture its foundations
- The Economy, which is diverse, so support all of its systems
- The Household, which is core, so value its contribution
- **The Commons, which are creative, so unleash their potential**
- **The State, which is essential, so make it accountable**
- Finance, which is in service, so make serve society
- **The Market, which *is* innovative, so give it purpose**
- Trade, which is a double-edged sword, so make it fair
- Power, is pervasive, so check its abuse

5. See the bigger picture: The Earth

- Economy exists within biosphere, delicate living zone of Earth's land, waters & atmosphere, so respect its boundaries
- Economy is open system, not a closed loop, with through flows of matter & energy. Earth is a sink, greenhouse gases, fertilizer runoff & throwaway plastics
- Economics still taught scant attention to planet
- On a planet with delicately balanced climate, how big can global economy be before disrupting planet support systems

4. See the bigger picture: The State

- Early economists understood importance of the state as a creative force.
- Liberalisation of past 40 years have seen a major rollback of the state
- The government was responsible for research that made smart phone, GPS, microchips, touchscreens & internet! The state was the innovative risk-taking partner, dynamising private enterprise.
- The state, belatedly is catalyzing, public, private, commons and household investments in a renewable energy future. Green bonds.
- Acemoglu & Robinson, show key to successful partnerships is inclusive institutions giving people a say in decision making and accountability.

5. See the bigger picture: The Commons

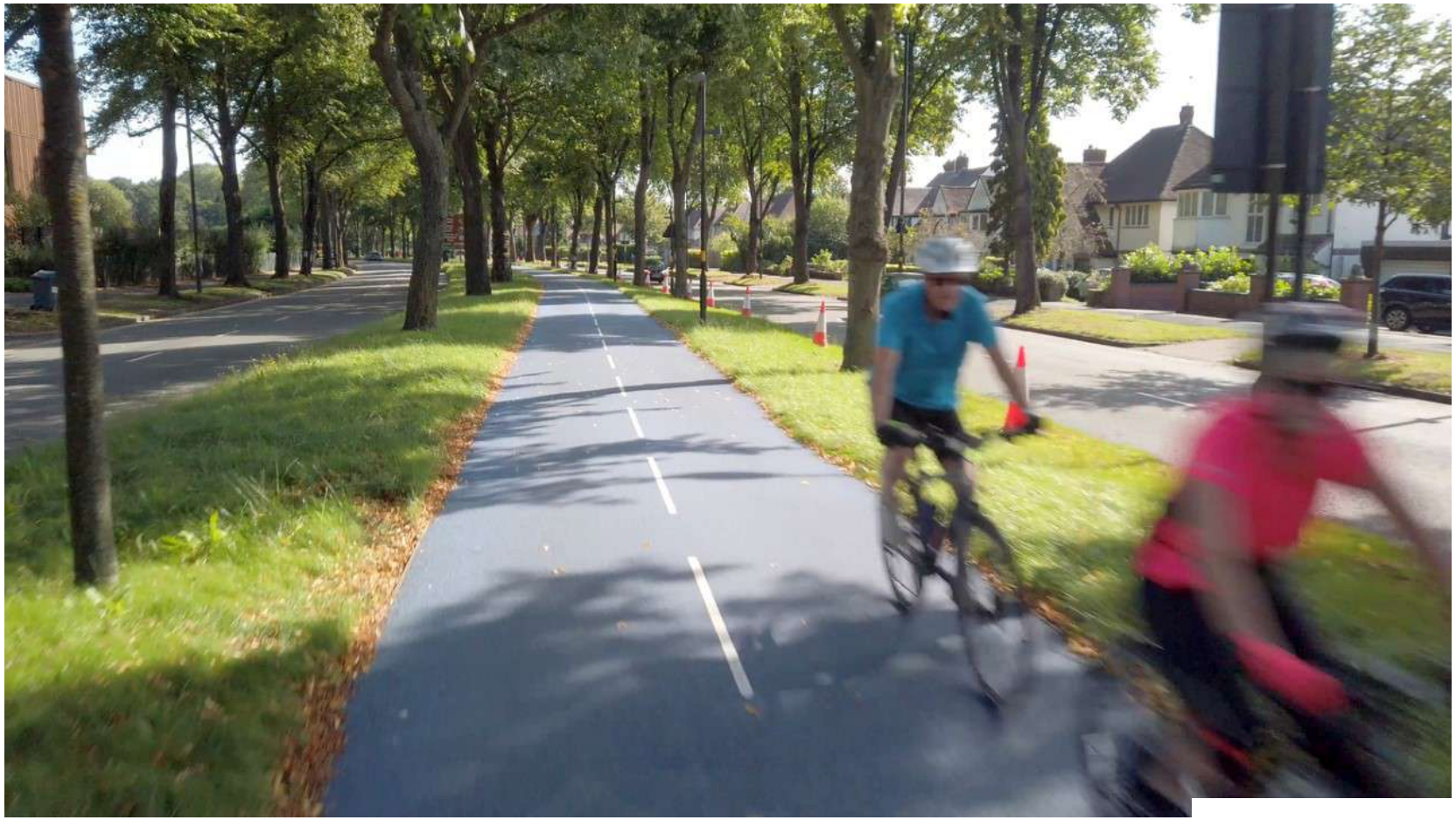
- Neither the market, the state, nor the commons can alone provide an infallible blueprint for managing land
- Elinor Ostrom showed that some communities have been shown to manage common-pool resources better than the market and state
- In Nepal found communally-run irrigation schemes were more basic, but were kept in better repair, produced more rice, and distributed the available water more equitably than state-run farms
- This self-organising system worked because farmers set up their own rules, met regularly in fields, set up a monitor system, and sanctioned those who broke the rules.

5. See the bigger picture: The Market

The distributed efficiency of the market is quite extraordinary, billions of global buyers & sellers all coordinated without need for grand planning

- Unconstrained, it degrades the living world by exploiting the Earth's sources and filling it's sinks
- Fails to deliver essential public goods upon which society depends, e.g. education, railways, water
- Its inherent dynamics widen social and economic inequalities
- Markets must be embedded within regulations and wider economy

Active Travel - Inclusive growth in practice



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Active Travel - Inclusive growth in practice

- 25% of adults in England report taking less than 30 mins of physical activity a week. 38% in Bradford, 17% in Cambridge. COVID making this worse ?

- Physical inactivity directly contributes to 1 in 6 deaths in UK, health & productivity costs of £7.4bn a year (37% in health sector) (PHE, 2016)

- Road transport contributes to long-term health hazards and inequalities; traffic collisions, air pollution, noise, social isolation, inactivity.

- The richest 10% of the population receive almost 4 times as much public spending on their transport needs as the poorest 10% (PHE, 2016)

Active Travel - Inclusive growth in practice

- Disadvantaged areas have a higher density of main roads, discourages walking and cycling and further exacerbates health inequalities

- Building walking or cycling into daily routines are most effective ways to increase physical activity. Short car trips prime for switching

- Walking and cycling can contribute towards economic performance by reducing congestion, supporting local businesses and more. The benefit to cost ratio of investments in walking and cycling are estimated at 5.62:1 (Commons Library, 2020)

- UK Govt “Gear change” allocates £2bn for walking and cycling projects, with a pledge of longer-term money – State driven !

Active Travel - Inclusive growth in practice

- Construction of cycle paths
- Separation of cycling from other traffic
- Green space
- Safe routes to school for children
- In new developments Public health and transport planners work together to ensure local facilities are located within routine walking and cycling distances

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Active Travel - Inclusive growth in practice

The Doughnut Dashboard

Air pollution

Biodiversity loss

Land conversion

Freshwater withdrawals

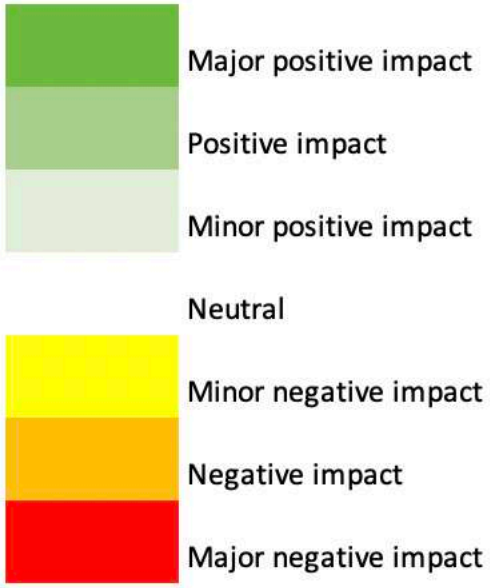
Nitrogen & phosphorus loading

Chemical pollution

Ocean Acidification

Climate change

Ozone layer depletion



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Active Travel - Inclusive growth in practice

- **Air pollution** Reduction in car journeys would reduce PM2.5, NO2 levels, targeted schemes could impact inequalities in air quality
- **Ozone layer depletion** Reduced car journeys would lead to small decrease ozone emissions
- **Chemical pollution** Oil, antifreeze, gasoline, refrigerants, brakes and hydraulic fluids can leak into the environment. Possibility of oil spills during transport of petroleum products
- **Climate change** Reduction in car journeys would reduce CO2 emissions, shipping as well.
- **Biodiversity loss** Extracting petroleum products can damage local biodiversity. Road building has had big impact upon wildlife.
- **Ocean acidification** Shipping of car components and petroleum leads to ocean acidification

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Active Travel - Inclusive growth in practice

The Doughnut Dashboard

Water

Food

Energy

Networks

Housing

Gender equality

Social equity

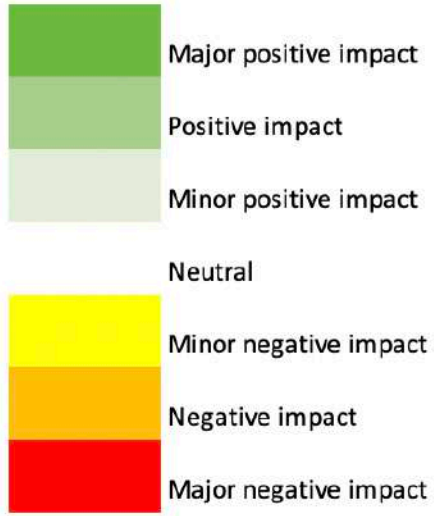
Political voice

Peace & justice

Income and work

Education

Health



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Active Travel - Inclusive growth in practice

- **Health** Building walking and cycling onto daily routines improves physical activity and air pollution, therefore population health, as well as broader quality of life. Address inequalities in health also.
- Feasible increases in active travel could save NHS £17bn over 20-years.
- **Income & work** Provision of facilities will provide employment. Broader productivity gains, from less delays & accidents, physical inactivity, and noise from road transport.
- **Networks** Walking and cycling associated with improvements in social cohesion
- **Social equity** Reduction in air pollution could help most deprived. Less spending on roads could equalise inequalities in transport spend per head.

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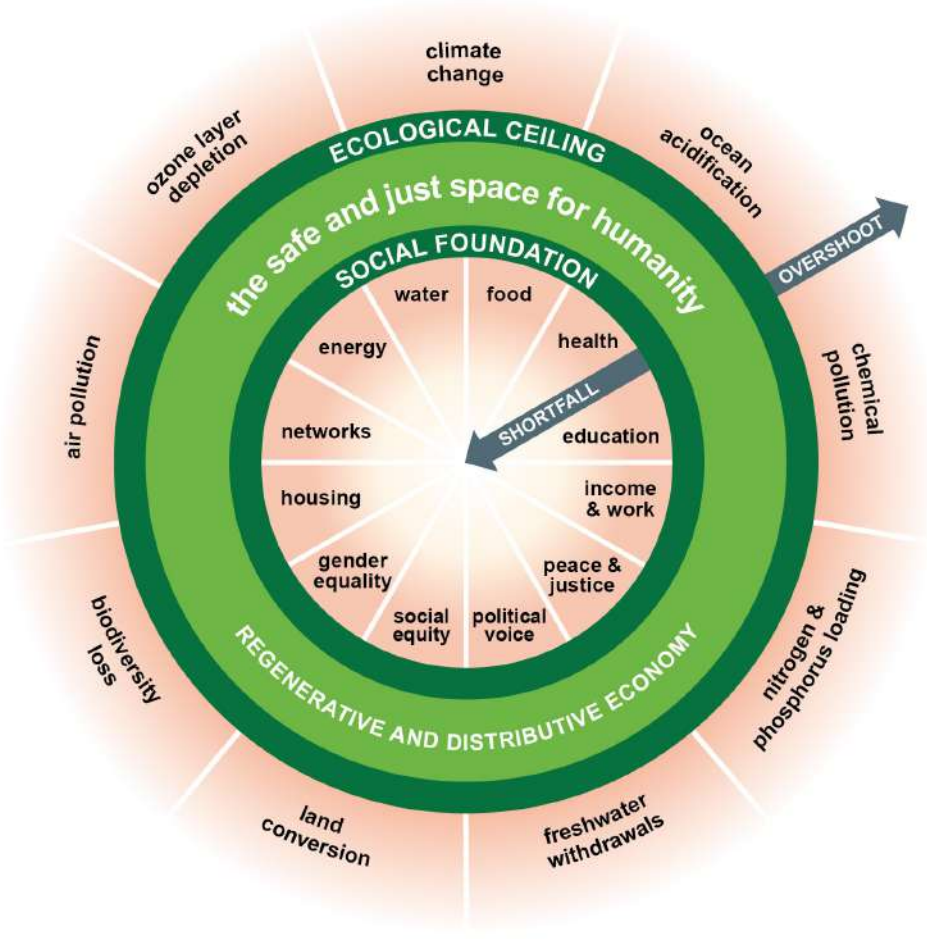
Active travel – broadening the aims…

- By changing the design of schemes might we be able to impact any other of the parts of the Doughnut ?
- Could it be designed to be redistributive ? To involve the commons ?
- Doughnut model also calls for local policy experiments & use pandemic to push behavior change



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What we learnt ?

- The Doughnut models asks for broader goals to economic policy, being agnostic about a growth agenda.
- The model demands policy be redistributive and regenerative from the outset
- Encourages the involvement of the state and the commons, and calls for tighter regulation of markets, businesses and finance
- Active travel can have a positive impact upon many Doughnut indicators, without pushing any of the environmental limits

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Questions ?

Amsterdam and the doughnut-economy

Source: Doughnut economics action lab (2020)

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Amsterdam and the doughnut-economy

- The city of Amsterdam worked together with Kate Raworth to develop a doughnut model for the city
- More than 50 city & regional officials, joined over 100 partners from the construction, biomass, and food and consumer goods sectors
- In 4 workshops participants developed 17 building blocks for policy to comply with social basement & prevent overshoot of ecological ceiling; comparing current city goals with the donut model & outlined a vision for value chains mentioned.
- Model will guide recovery from COVID-19.

The Circular City

A circular city, in a short definition, is one that eliminates waste, keeps goods and their ingredients in use and regenerates natural systems.

- The COVID-19 pandemic and public health measures raise new questions about systemic resilience of complex global production methods and value chains.
- This has triggered renewed interest in more diversified and localised production and shorter supply chains in certain sectors.

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The Circular city

- In circular value chains, waste is minimised and end-of-life products are recovered for reuse, remanufacture, and recycling.
- The availability of recycled materials & products for reuse and remanufacture leads to new sources of supply
- Circular value chains help advance climate mitigation via reduced primary material production and opportunities to shift consumption towards product-service and other circular business models
- Governments can catalyse uptake of circular value chains via removing trade barriers on scrap, landfill fees, Extended Producer Responsibility, and capacity building amongst firms

Source: OECD (2020)

Amsterdam and the doughnut-economy

- Construction

1. Promote circular area development through flexible zoning, climate adaptation and a regenerative urban design.
2. Inclusion of circular criteria for land allocation and tendering for all construction and infrastructure projects and in public spaces.
3. Start the construction of adaptable and modular buildings possible.
4. Scaling up circular degradation and collecting homogeneous reusable components.
5. Supporting the use of renewable and secondary building materials.
6. Encourage circular adjustment in private and social housing.

Amsterdam and the doughnut-economy

- Biomass and nutrition

7. Encourage circular food production in urban and peri-urban areas.
8. Encourage healthy, sustainable and plant-based food consumption by all citizens.
9. Minimization of food wastage by shops, hospitality and households.
10. Expand the separate collection of organic waste from households and businesses to enable high-quality treatment.
11. Upscaling of high-quality transformation of residual biomass and food flows.
12. Accelerate the closure of local nutrient cycles from biomass and water flows.

Amsterdam and the doughnut-economy

- Consumer goods

13. Prevent over-consumption and minimize the use of fast-moving consumer goods.
14. Encourage high-quality recycling of complex consumer goods.
15. Encourage the shared and long-term use of products.
16. Expansion of craftsmanship networks in neighbourhoods to repair and repair products.
17. Promoting the design and use of standardized and modular products to enable reuse, repair and recycling

What we learnt ?

- The Doughnut models can be scaled to the City level
- Amsterdam has used the doughnut model to guide it's post-COVID 19 recovery
- Process involved consultation with stakeholders from across the City, community, and business
- Concepts of circular city and circular value chains are becoming increasingly important components of inclusive development

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Questions

Interactive session

- Consider the challenge of air pollution in the West Midlands, and discuss using the doughnut model as a guide, a policy response compatible with aims of inclusive growth. Which parts of the Doughnut would it address ? Try hit as many as possible.

- You'll have 15 minutes in breakout groups, appoint a facilitator within each group, discuss solutions with group members, appoint a spokesperson to feedback

- We return at 12.45am, go around the groups quickfire, for a single example of a clean air solution from each group

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