

What does it mean for Scotland to develop an economy that operates within the limits of nature?

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The Economy is Embedded in Nature

- **Our economy** – like our society - **is dependent on the natural world** to supply the resources and services it needs and to assimilate its wastes (including greenhouse gases).
- **Drawing on nature's sources faster than they can regenerate runs down our natural capital.**
- Our unsustainable engagement with Nature is endangering the prosperity of current and future generations.



Image taken from "The Economics of Biodiversity: The Dasgupta Review"

The Environment: Driver for Economic Growth

Nature's goods and services are the foundations of our economies.

The services that nature provides include:

- **Provisioning services** that supply the goods we harvest and extract (food, water, oil, timber, medicines)
- **Cultural services**, such as the gardens, parks, seas and coastlines which support physical and mental wellbeing
- Provide **regulating and maintenance services** which allow our economy to thrive

We have failed to engage with Nature sustainably.

Our demand for ecological goods and services (ecological footprint) far exceeds the rate at which the rate of supply (biosphere regeneration).

3 Earths would be needed to sustain our current demands on nature if everyone lived as we do in Scotland.

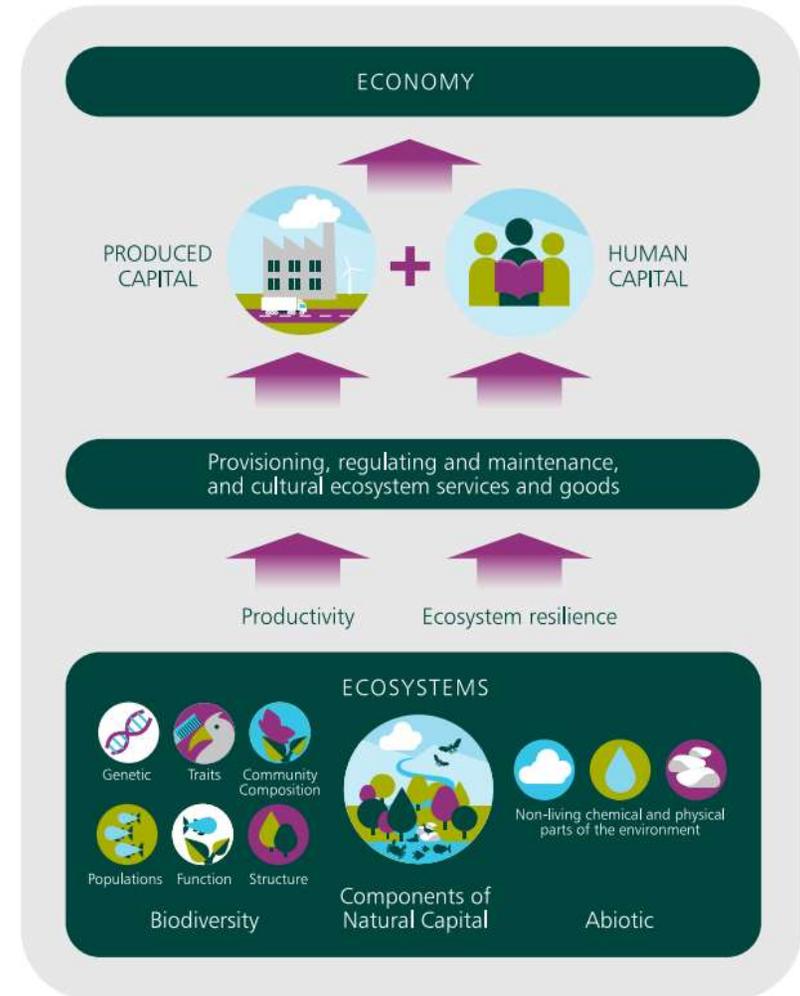


Image taken from "The Economics of Biodiversity: The Dasgupta Review"

Our current economic model is unsustainable

We are over consuming our natural assets, and depleting the stocks available for the future.

Figure 9 Global Wealth Per Capita, 1992 to 2014

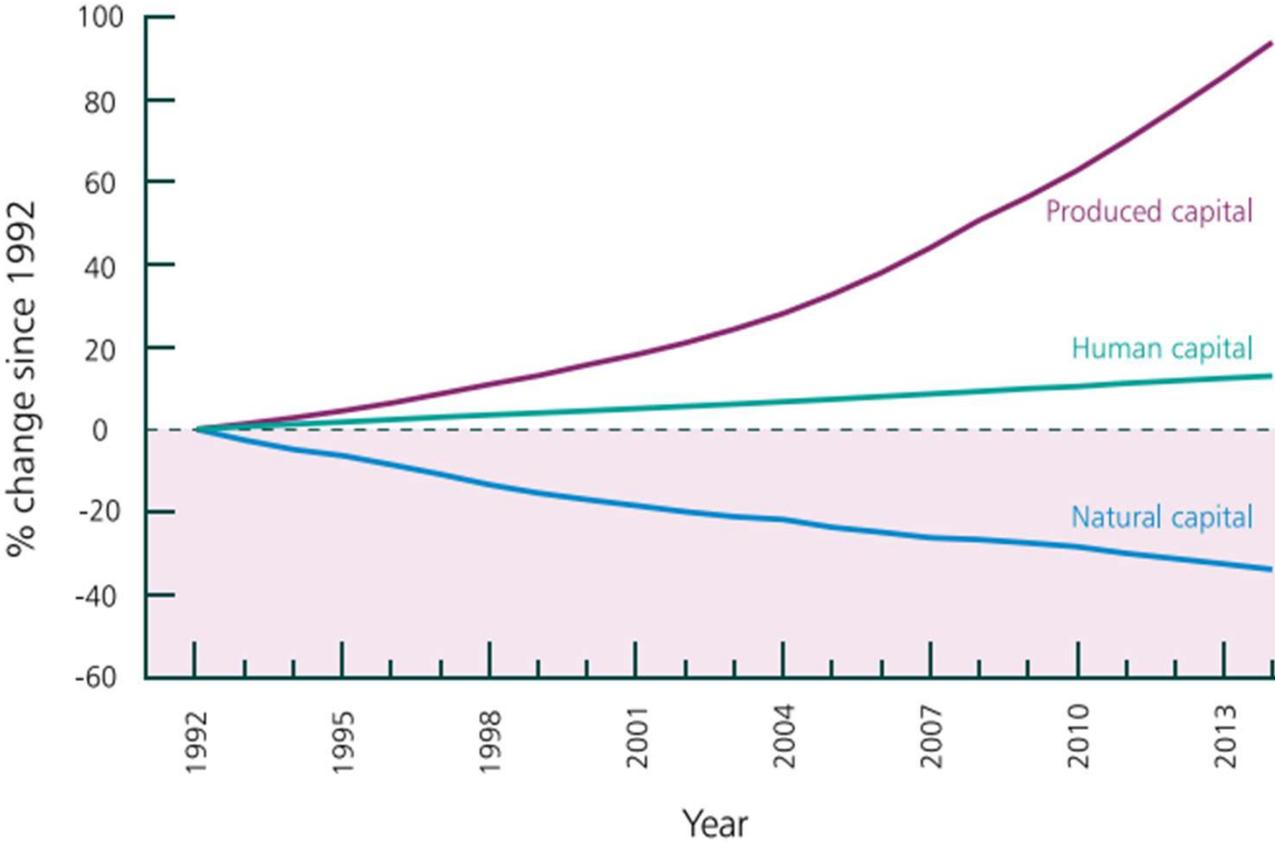
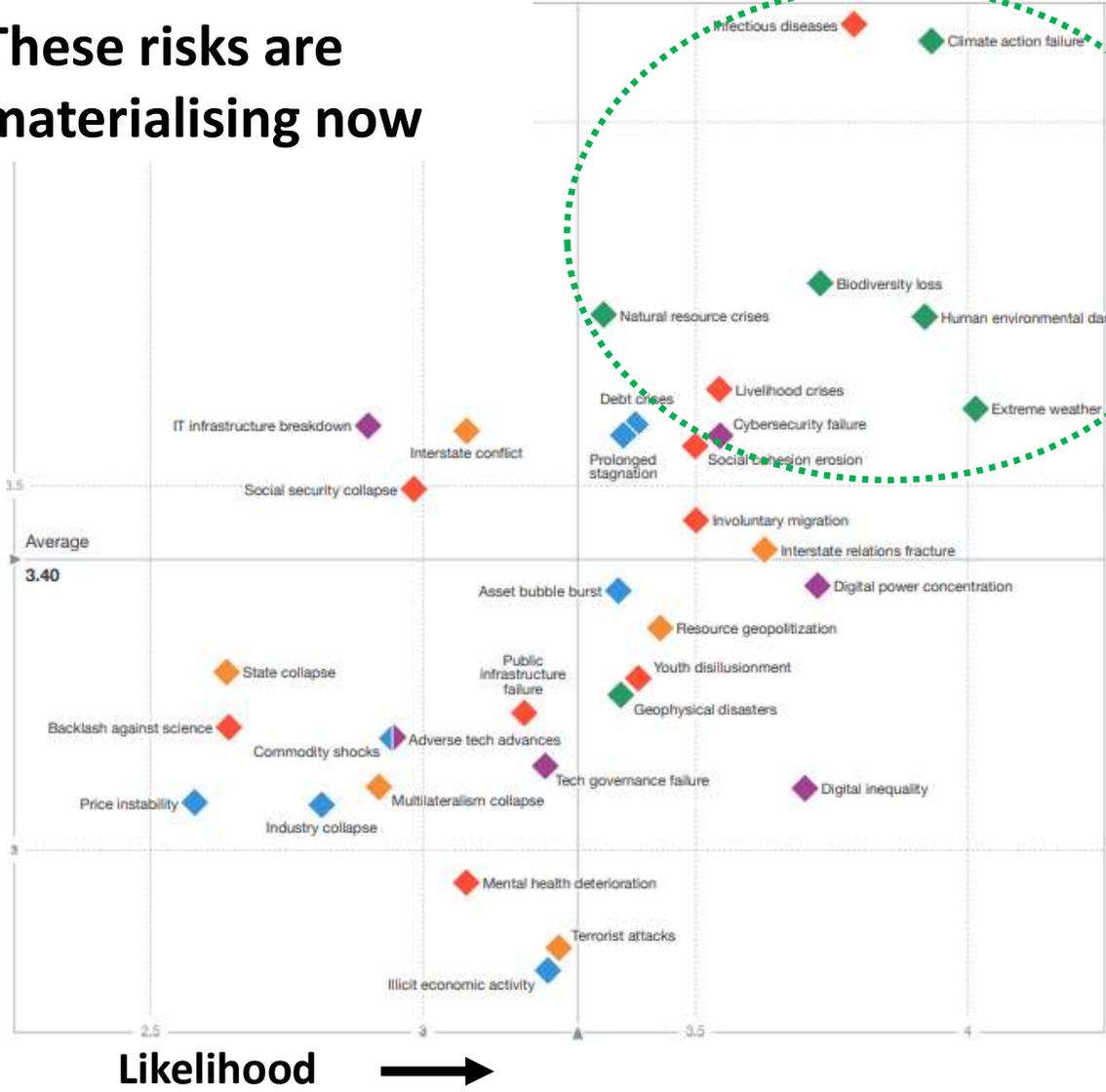


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These risks are materialising now



World Economic Forum's top global risks in 2021:

- ⚠️ climate action failure
- ⚠️ biodiversity loss
- ⚠️ natural resource crises
- ⚠️ human environmental damage
- ⚠️ extreme weather

What do we need to do?

Tackling the Climate and Nature crises will depend on urgent, **transformative economic and social change**.

This will mean transitioning to an economy which is:

- **Nature-based** - Supporting nature's recovery by building natural capital and driving a shift to sustainable production and consumption which reduces demands on nature
- **Net-zero** - Rapidly decarbonising across sectors to reach net-zero by 2045 and investing in nature-based solutions to climate change.
- **Circular** - Shifting from a linear 'take, make, waste' economy to a circular economy which is regenerative and minimises waste

Integrating Natural Capital and Nature into Wider Economic Policy



There are already around **23,100 jobs** in the **low carbon and renewable energy sector** in Scotland, and this will grow substantially as progress towards net-zero accelerates.



- Around **7.5% of Scotland's workforce** are employed in **nature-based jobs (195,000 jobs)**
- The sector is growing at more than 5 times the rate of all jobs in Scotland between 2015-19 and accounting for one third of all job growth in that period.

- Around 8% of jobs in Scotland are linked to the **circular economy (207,000 jobs)**. The future growth in circular economy business models will increase demand for existing roles e.g. in resource management, logistics and engineering, and create new roles, such as urban miners.



Opportunities for job creation in all parts of a Circular Economy

Integrating Natural Capital and Nature into Wider Economic Policy

Delivering new, good, green jobs



Investing in education, skills and capacity building to increase the already large numbers of green jobs :

Developing skills, jobs, expertise and supply chains to deliver the scale of land use transformation required to meet Net Zero targets (woodland creation, peatland restoration, bioenergy, renewables, sustainable food production).

Delivering across Scotland in a national and regional way

Supporting national and regional delivery of a wellbeing economy by integrating and funding environmental objectives in local and regional initiatives, and Mission oriented approaches to net zero and place

Investing in and supporting the industries of the future

Mainstreaming net zero and circular business models and using a broader set of multi-dimensional indicators to measure success and progress towards a wellbeing economy

Net zero land use transformation in Scotland is estimated to require £12 billion of investment (UKCCC). There is significant interest in this large scale investment opportunity from private investors because of Scotland's positioning on natural capital in terms of our assets and supportive policy environment.

Leveraging in Private Finance

- The scale of investment required to restore nature and move to a more sustainable economic model is considerable. It can not be funded by government alone.
- The majority of investments in 'green finance' are in environmentally friendly alternatives to high-polluting industries (e.g. green energy, green infrastructure etc).
- Projects which offer high environmental benefit, but do not provide a 'product' in the traditional sense are often not catered for in green finance markets.
- How to overcome these barriers?
 - Providing a standardised system for measuring environmental improvements
 - Facilitating a 'matching' service – to help investors find projects
 - Grouping projects to increase the scale of the investment/spread risk
- To facilitate investment as scale there needs to be a financial return on investment – e.g. through markets for carbon sequestration, regulation, environmental impact bonds, co-funding etc

Changing our measures of economic success and investment

- Improve decision making through natural capital accounting – e.g. factoring environmental impacts into appraisals, business cases and funding decisions – *signs of this happening but not on a systematic basis.*
- Change our measures of economic success to reflect changes in our natural capital – *this is starting to happen but can feel piecemeal*

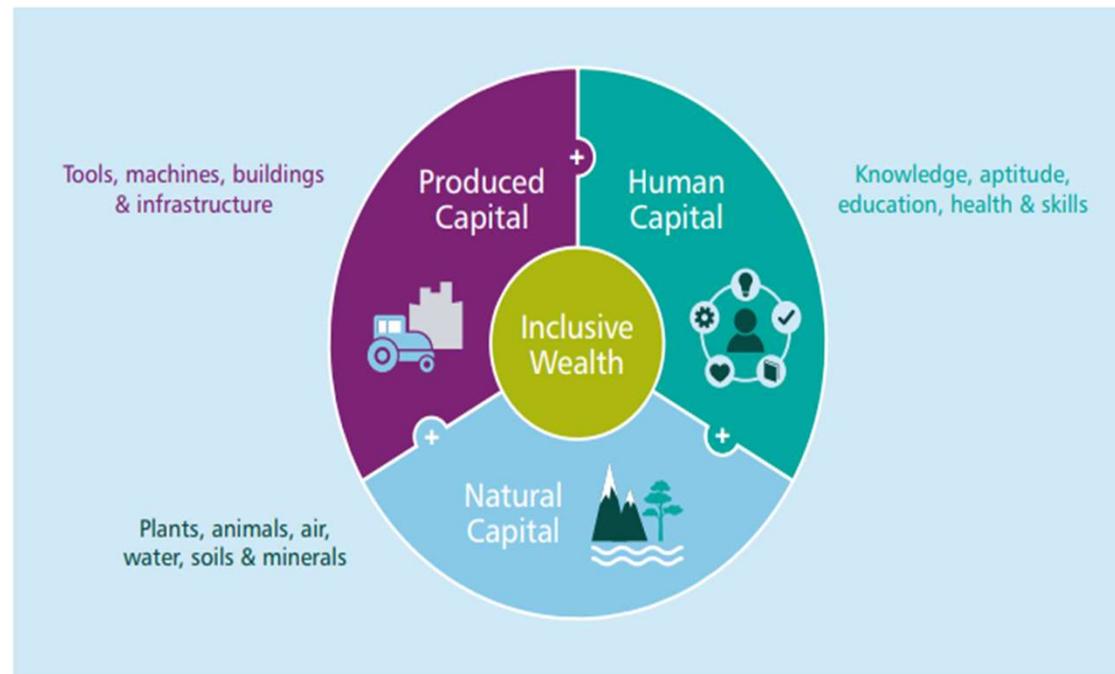


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Enhancing wider understanding of nature

Genuinely adopting a natural capital approach requires a society wide appreciation of, and connectedness to, nature. For example:

- Broadening focus on nature in all tiers of the education system
- Enhancing wider appreciation of nature – e.g. facilitating access, understanding of health benefits etc.
- Enhancing knowledge and understanding across the public and private sector – particularly how to capitalise on a natural capital approach

Discussion

- What would this transformation look like in practice – for public bodies, in public policy, in different sectors?
- Would it change how we measure success in our organisations and how we select policy priorities?
- What actions would have the biggest impact on accelerating this change? How can we collectively facilitate them?
- How much of it are we already doing? Do we have good examples we can share, that could be scaled up or rolled out more widely?