The 21st Century Challenge of Sustainable and Equitable Development

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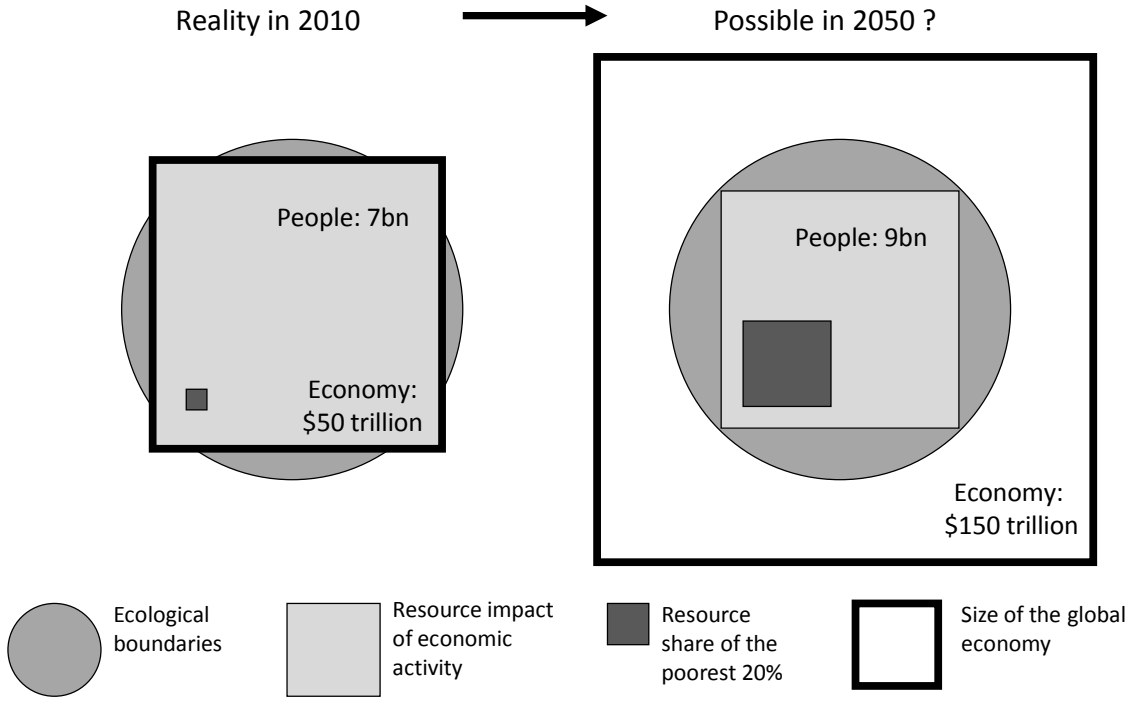
This briefing note aims to provide a big-picture context to 'green economy' debates.

The major challenge of the 21st century is whether, or how, by 2050, it will be possible to:

- Cut humanity's ecological footprint by 33% to live within the planet's resource capacity
- Redistribute the world's limited resources towards those currently living in poverty
- Share the planet's resources with nearly 30% more people – over 9bn in 2050
- Accommodate a growing global economy – projected to be three times bigger by 2050

Figure 1 below aims to capture the scale of the challenge that these four factors create. The reality of 2010 is that humanity's use of resources is already exceeding the planet's boundaries, but extreme global inequality forces two out of seven billion people to live in poverty. By 2050 there will be over 9bn people and, on mainstream projections, the global economy is expected to treble in size. Will it be possible to 'have it all' in 2050 – to dematerialise economic growth and redistribute global incomes, so that humanity's impact comes back within planetary boundaries, and there is far more equal access to the planet's resources at the same time?

The 21st century challenge



Source: Oxfam

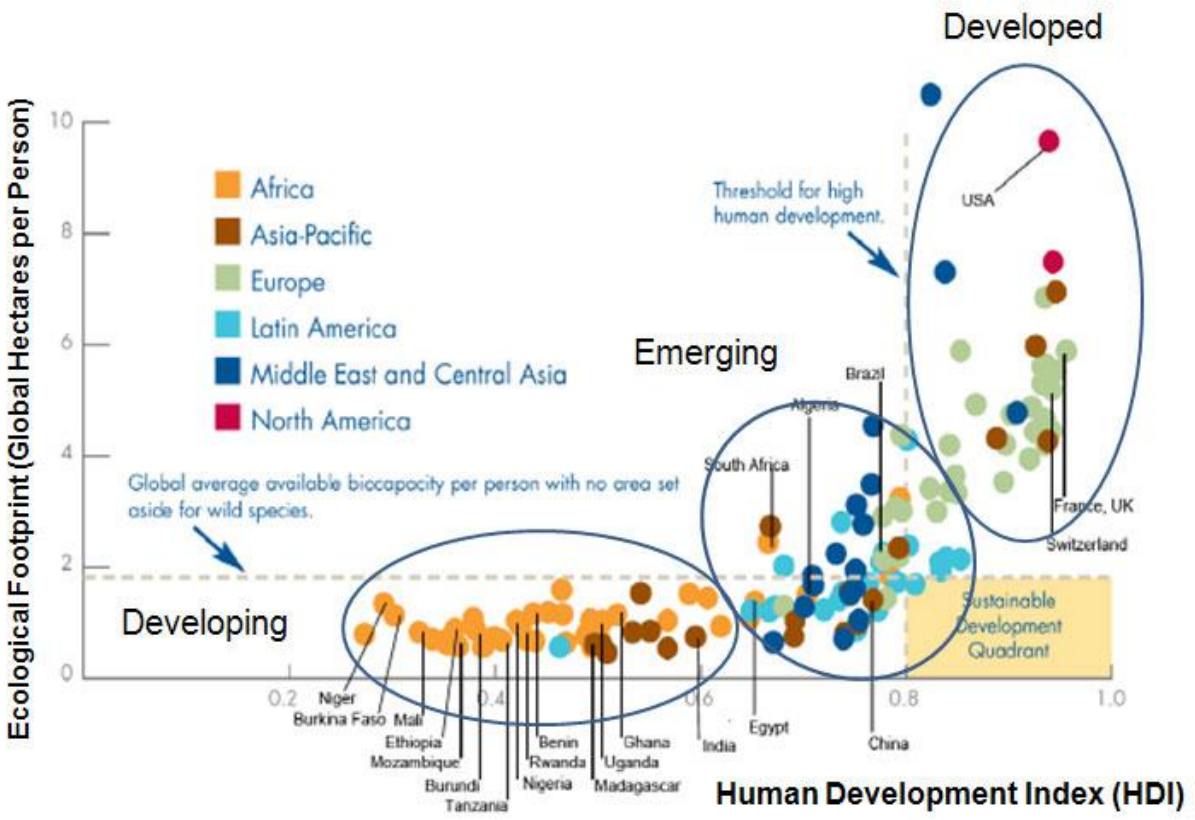
Focusing on the four dimensions of the challenge in more detail:

1. **Cut humanity's ecological footprint by 33% to live within the planet's biocapacity.**

Humanity is currently using Earth's resources 50% faster than the planet can renew them – as if we had one and a half planets at our disposal. And if we continued consuming at this rate, we would need two and a quarter planets by 2050.[1]

This global picture masks massive national disparities, which are revealed in Figure 2 below, which compares a country's Human Development Index rating to its Ecological Footprint. Most developing countries have ecological footprints that fall within their national share of the planet's biocapacity (below the line of 1.8 global hectares per capita) but they tend to have low levels of human development. At the other extreme, 'developed' countries have achieved high levels of human development, but at the cost of using many times more than their share of the planet's biocapacity. In between the two, emerging economies are closest to the ideal Sustainable Development Quadrant (which combines high human development with sustainable ecological footprints) but the critical question is which direction they will move in – towards that Sustainable Development Quadrant, or up onto the path taken by the 'developed' countries?

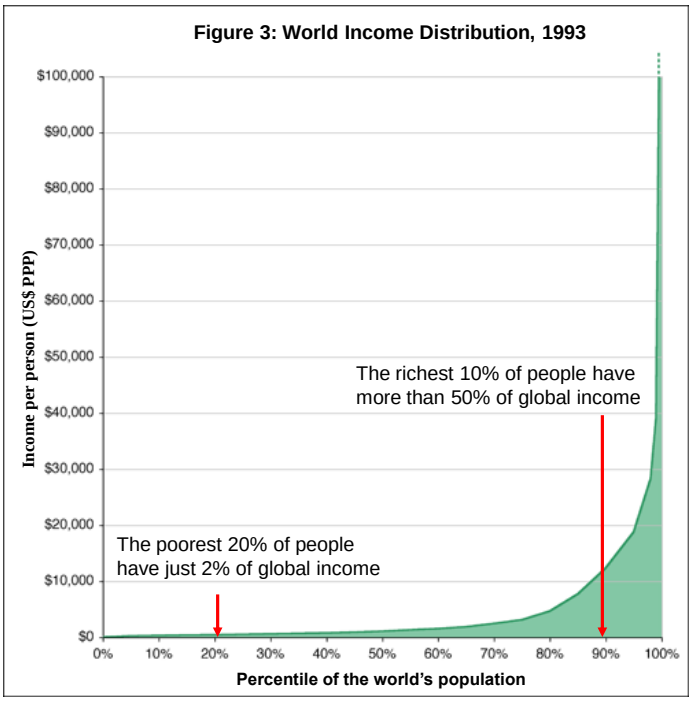
Figure 2: Human Development vs Ecological Footprint



Source: Global Footprint Network and UNDP

[1] Global Footprint Network

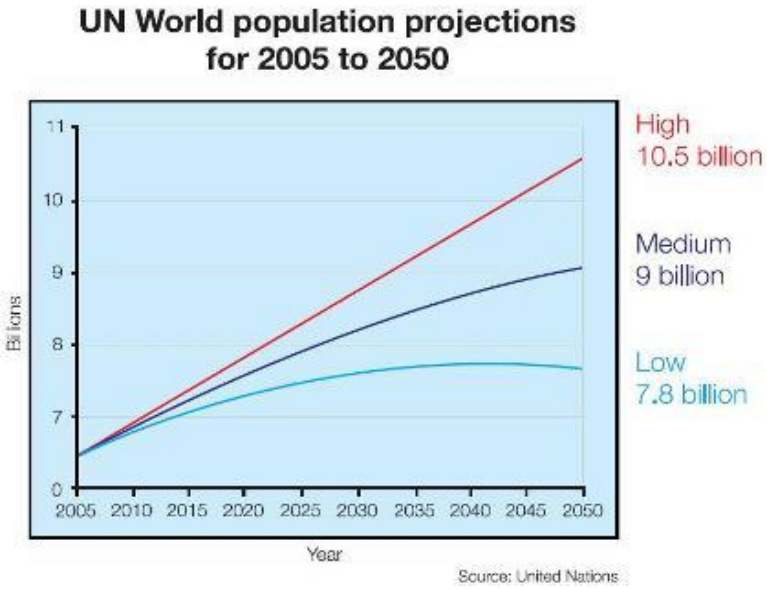
2. Redistribute the world's resources towards those currently living in poverty.



Global incomes and wealth are extremely unequally distributed, both within countries and between them. According to Milanovic's 1993 analysis of global income distribution, calculated on the basis of purchasing power parity, the poorest 20% of people held just 2% of global income, while the richest 10% held over 50% of global income (Figure 3). Such extreme income disparities inevitably lead to extreme disparities in consumption and access to resources.

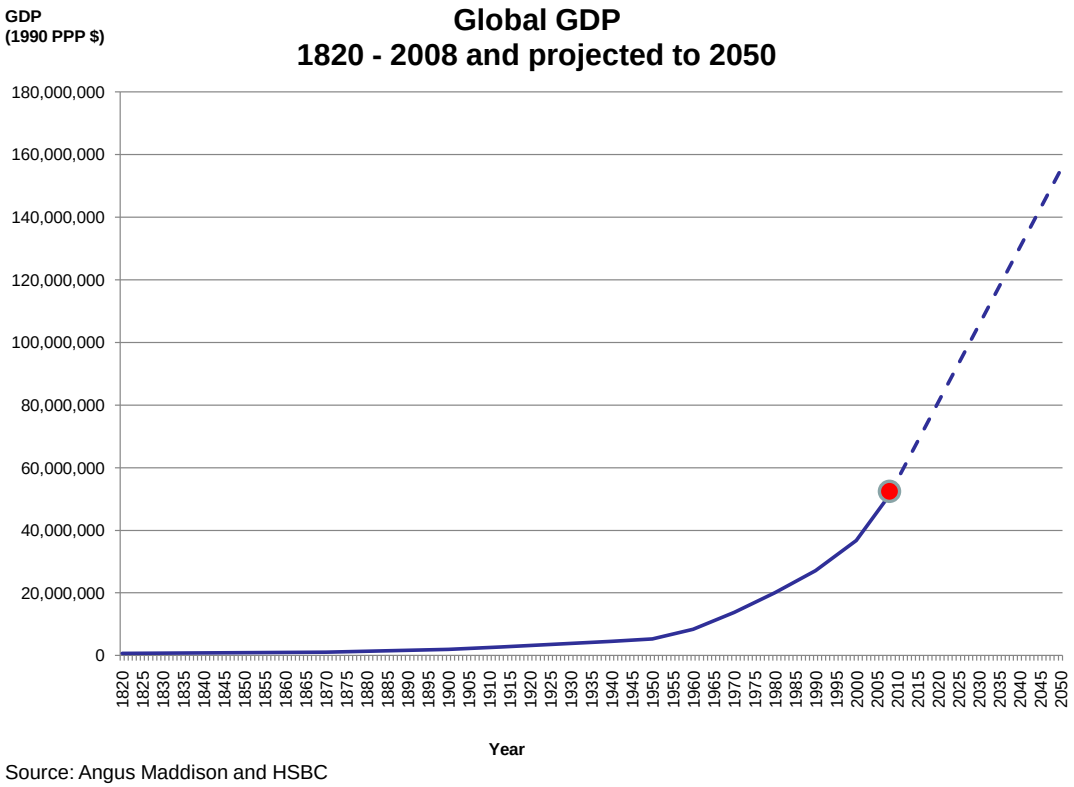
Source: Milanovic 2000.

3. Accommodate nearly 30% more people on the planet – around 9bn in total – by 2050



The UN projects that global population will rise to between 8 and 10.5 billion people by 2050 – an increase on today's population of between 15% and 50%. The medium, and most likely, projection is 9bn people – almost 30% more than today - at which point population is expected to peak and plateau. The vast majority of population growth it is expected in Asia and sub-Saharan Africa – both regions home to many of the world's poorest people today.

4. **Accommodate a growing global economy - projected to be three times bigger in 2050.**



Source: Angus Maddison and HSBC

The global economy has trebled in size since 1970, and, on mainstream predictions, it is expected to treble again by 2050 (Figure 5). Unlike population growth, per capita economic growth shows no signs of reaching a natural peak and plateau: predictions are for incomes in today's high-income countries to double in real terms by 2050.

These four dimensions of the challenge – sustainability, global equity, population growth and economic growth – are driving intense debate over whether it is going to be feasible:

a) **for the global economy to treble in size while humanity's global ecological footprint falls by 30% at the same time.** If this scale and speed of economic dematerialisation is indeed possible, what policies will achieve it? And if it is not possible, what should be the implications for the future of global economic growth?

b) **for global incomes to be far better distributed at the same time, in order to end poverty and achieve much greater global equity.** A focus on global equity is often missing in discussions about greening the global economy, but must return to the heart of the debate. What will it take to achieve sustainability and equity at the same time?