By 2050, we will need to:

- Stabilise Climate
- Stabilise Population & Inequities
- Stabilise Biosphere
1. Stabilising our Climate

Global CO2 emissions has stalled...

Shift to renewable energy is inevitable...
2. Stabilising our Population & Inequities

Global Poverty Rates

Source: World Bank PovcalNet database and authors' calculations
3. Stabilising our Bioshpere?

The Living Planet Index extrapolated to 2020 under business as usual scenario

Overall: 67% decline

Source: WWF/ZSL, 2016
Bending the Curve: 
*Peak, Plateau and Restore...*

- Business as Usual
  - 2012: -58%
  - 2020: -67%
  - 2025: ??
  - 2030: Very Dangerous

(Living Planet Index)

(years)
Five key threats to wildlife populations

- **Terrestrial species**
  - Climate change
  - Overexploitation
  - Habitat loss / degradation
  - Invasive species and disease
  - Pollution

- **Freshwater species**
  - Climate change
  - Overexploitation
  - Habitat loss / degradation
  - Invasive species and disease
  - Pollution

- **Marine species**
  - Climate change
  - Overexploitation
  - Habitat loss / degradation
  - Invasive species and disease
  - Pollution
Land: A Finite Resource...
"We are living in the most explosive era of infrastructure expansion in human history"

Prof Bill Laurance (2015)
New Tools for Land-use Planning

http://wwf-sight.org/
Belt & Road Initiative overlap with Threatened Species Habitats

![Map showing the overlap of the Belt & Road Initiative with threatened species habitats.](image-url)
New Approaches to Financing Landscapes

Welcome to the Landscape Finance Lab platform. This space can help you:

- develop your sustainable landscape program;
- collaborate with a supportive network;
- share resources and opportunities

View challenges

Landscapes Incubator
Develop your sustainable landscape programmes

https://landscapelab.crowdicity.com/
Opportunity: Green Bonds & the Land Sector

Land is a key source of emissions

Sources of Greenhouse Gas Emissions
IPCC 2016

but barely figures in financing solutions

Green Bonds Universe $694 B
Climate Bonds Initiative 2016

Needed: Land sector finance products at scale of +$100 M
Economically productive component

Ecologically productive component

Private Finance

Public Finance
Changing World Order: Role of Middle Income Countries

Share of global GDP (Nominal)

Country Income Groups:
- Low income: $1,045 or less
- Lower middle income: $1,046-$4,125
- Upper middle income: $4,126-$12,735
- High income: nonOECD: $12,736 or more
- High income: OECD: $12,736 or more

Year: 2016
Source: The World Bank Group
The Growing Middle Class…

Increase in size of the global middle class is driven by emerging economies...

<table>
<thead>
<tr>
<th>Year</th>
<th>ME and N Africa</th>
<th>Sub-Saharan Africa</th>
<th>Asia Pacific</th>
<th>Latin America</th>
<th>Europe</th>
<th>N America</th>
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<tr>
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<td>0.0</td>
<td>0.7</td>
<td>0.3</td>
<td>1.1</td>
<td>0.2</td>
<td>0.1</td>
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<tr>
<td>2020</td>
<td>1.1</td>
<td>0.3</td>
<td>0.3</td>
<td>3.2</td>
<td>0.7</td>
<td>0.2</td>
</tr>
<tr>
<td>2030</td>
<td>2.5</td>
<td>0.7</td>
<td>0.3</td>
<td>4.9</td>
<td>0.7</td>
<td>0.2</td>
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Shifting concentration of global middle class consumption to Asia

<table>
<thead>
<tr>
<th>Year</th>
<th>Others</th>
<th>Japan</th>
<th>EU</th>
<th>Other Asia</th>
<th>China</th>
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<tbody>
<tr>
<td>2015</td>
<td>26%</td>
<td></td>
<td>21%</td>
<td>14%</td>
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</tr>
<tr>
<td>2030</td>
<td>20%</td>
<td></td>
<td>21%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>2050</td>
<td>20%</td>
<td></td>
<td>20%</td>
<td>14%</td>
<td></td>
</tr>
</tbody>
</table>
Getting into the ‘Magic Box’ of Sustainable Development
Technology uptake and Leapfrogging

The pace of technological change has been rapidly accelerating

Years necessary for an invention to be used by 25% of the US population

1870
- Radio 1897
- Telephone 1876
- Electricity 1873
- Colour television 1951
- Mobile phone 1973
- World wide Web 1991
- 2000

New technologies grow exponentially: Moore’s Law

Fossil fuel phase out

- Constant rates of doubling: every 5.4 years
- Linear increase of annual gains
- Constant annual gains

2000
- 2010
- 2020
- 2030
- 2040
- 2050
- 2060
- 2070
2020:
A Potential Policy Inflection Point for
Stabilising our Biosphere

Convention on Biological Diversity
2020 CBD COP15 - China:
• Aichi Targets due
• New strategic framework set to 2030
2019:
• Heads of State Biodiversity Summit

Sustainable Development Agenda:
2020:
• 18 environmental targets due
• New targets set to 2030
2019:
• Heads of State review

Paris Agreement:
2018-2020:
• Facilitated Dialogue and Stocktaking
2020:
• Nationally Determined Contributions updated