Green investment for economic development in Africa

Seventh Session of the Africa Regional Forum on Sustainable Development | 1st March 2021

Brian O’Callaghan | University of Oxford | @OxEconRecovery
Dr. Julia Bird | Vivid Economics | @VividEconomics
brian.ocallaghan@smithschool.ox.ac.uk | julia.bird@vivideconomics.com
Oxford University Economic Recovery Project
@OxEconRecovery

Housed in Oxford’s Smith School of Enterprise and the Environment

What we do:

💡 Advise world leaders + decision makers

🕒 Track & assess govt spending

📊 Economic modelling

👩‍💼 Pursue just transition priorities

🔄 Consider how to turn recovery into long-term growth

---

Strategic economic consultancy with global reach

**Emphasis on putting economics to good use**
- Founded in 2006
- Team of 100 consultants, working across 60 countries and 6 continents
- Headquartered in London, with offices in the US, Netherlands and South America

**Broad experience across sectors and themes**
- energy, infrastructure, industry, resources and finance
- themes of climate change, sustainability, growth, competition, innovation and infrastructure planning
- industry leaders in applying economic models and tools

Presented by: brian.ocallaghan@smithschool.ox.ac.uk
Sustainable investment will drive sustainable growth
Sustainable investment will drive sustainable growth

&

the international community must generously partner for the long-term
COVID context: Africa has been spending

**Essential terminology**
- Short-term rescue: keeping businesses and people alive
- Long-term recovery: reinvigorating the economy

![Graph showing spending (% GDP) for different countries](image-url)

- United Kingdom:
  - Recovery: 40%
  - Rescue and unclear: 60%
- Australia:
  - Recovery: 20%
  - Rescue and unclear: 80%
- France:
  - Recovery: 30%
  - Rescue and unclear: 70%
- China:
  - Recovery: 30%
  - Rescue and unclear: 70%
- India:
  - Recovery: 20%
  - Rescue and unclear: 80%
- South Africa:
  - Recovery: 20%
  - Rescue and unclear: 80%
- DRC:
  - Recovery: 0%
  - Rescue and unclear: 100%

*Presented by: brian.ocallaghan@smithschool.ox.ac.uk*
But Africa does not have the freedom to cheaply spend on recovery...
Post-covid, is green good for Africa?

Presented by: brian.ocallaghan@smithschool.ox.ac.uk

Our study shows green investment could rebound growth, expedite development, and bring environmental benefits.

Republic of South Africa
- Renewable energy
- Low-emissions transport
- Natural capital investments

Democratic Republic of the Congo
- Utility-scale Renewable Energy & Power Lines
- Minigrids and Microgrids
- Natural capital investments

Presented by: brian.ocallaghan@smithschool.ox.ac.uk
Our study shows green investment could rebound growth, expedite development, and bring environmental benefits.

Republic of South Africa
- **Renewable energy**
- **Low-emissions transport**
- **Natural capital investments**

Democratic Republic of the Congo
- **Utility-scale Renewable Energy & Power Lines**
- **Minigrids and Microgrids**
- **Natural capital investments**

---

Presented by: brian.ocallaghan@smithschool.ox.ac.uk
Sustainable investment will drive sustainable growth

&

the international community must generously partner for the long-term
Across four sectors, Vivid modelling shows selected green policies deliver greater short-term jobs & long-term output.

**Graph:**
- **Transport:**
  - Jobs: Short-term (5 years)
  - GVA: Total (20 years)
- **Retrofits:**
  - Jobs: Short-term (5 years)
  - GVA: Total (20 years)
- **Nature-type programs:**
  - GVA: Total (20 years)
- **Energy:**
  - GVA: Total (20 years)

**Legend:**
- Traditional
- Green

**Presented by:** julia.bird@vivideconomics.com

1. Traditional investments include road, housing development, water treatment facilities, and coal energy generation.
2. Green nature includes agroforestry and park development, among others (figure 4).
3. Modelling is based on current sector dynamics, rather than projected future dynamics. It is likely to overstate long-term GVA of traditional (fossil) investment and understate GVA of green energy. For fossil spending, stranded asset risk could reduce asset lifespans. For clean investment, cheaper energy is likely to unlock investment in electric transport, sustainable production, and other adjacent sectors.
Policy options include investments in sectors which can alter the sustainability of growth going forward, delivering both jobs + environmental benefits.

<table>
<thead>
<tr>
<th>Renewable energy</th>
<th>Natural Capital Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>high economic multipliers</td>
<td>includes restoration of habitats, agricultural interventions, and urban greening.</td>
</tr>
<tr>
<td>reduce vulnerability to fossil fuel price volatility</td>
<td>quick to deploy, low training requirements</td>
</tr>
<tr>
<td>enables broader economic growth</td>
<td>builds climate resilience and productivity</td>
</tr>
<tr>
<td>investing in traditional fossil fuel energy risks creating stranded assets, reducing returns</td>
<td>low leakage outside of the country</td>
</tr>
<tr>
<td></td>
<td>returns for the tourism sector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low emissions transport</th>
<th>Building retrofitting</th>
</tr>
</thead>
<tbody>
<tr>
<td>strong job creation in research and up the supply chain for electric vehicles</td>
<td>small scale investments include solar roofs, insulation and window and door retrofitting</td>
</tr>
<tr>
<td>public transport systems, for example BRTs or electric buses, create jobs in construction and operation, while supporting connectivity and agglomeration economies</td>
<td>commercial and residential energy retrofitting support construction and trade jobs, while reducing building energy needs</td>
</tr>
<tr>
<td></td>
<td>supports upstream suppliers</td>
</tr>
</tbody>
</table>
Further modelling in DRC reveal similar messages: recovery spending can support jobs + growth while lowering emissions + protect nature

Much of global stimulus spending will likely be directed towards investment in long-lived assets, which will impact the environment for years to come and alter the productivity capacity of national economies.

- Investing in transport and energy systems enhance the productive potential of other industries, and unlock opportunities in green tech through creating a critical scale of demand

- Investing in traditional technologies today risks creating stranded assets in the future – e.g. power stations that have lower future economic value as the energy transition takes hold

- Natural assets such as forests and mangroves may enhance the wealth of economies in the coming decades as carbon sinks valued by global offsets markets, as protectors of biodiversity, as sources of increased tourism revenues, and as the lungs reducing pollution and enhancing well-being – investing in these today can create jobs & build long-term wealth

The economic modelling is based on current technology and pricing, and therefore likely underplays the scale of the long-term opportunities green policies unleash.

Presented by: julia.bird@vivideconomics.com
Green investment could bring more jobs and economic gains in the short term, unlock greater development opportunities in the medium to long term, and ensure better environmental and social outcomes.

Excerpt from report: *A Prosperous Green Recovery for South Africa*