Governing BECCS: ‘slippery slope’ or ‘uphill struggle’?

Dr Rob Bellamy

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Slippery slope arguments

• It is more often the imagined undesirable impacts of large-scale climate interventions that steal the attention of those who would seek to govern them

• If we do ‘A’ (BECCS R&D) this will trigger a chain of events that result in an objectionable ‘B’ (BECCS deployment and its envisaged undesirable impacts)

• It would follow then that governance should therefore employ instruments that proscribe or at least constrain BECCS R&D in order to prevent those impacts

• Underlying the argument are two significant assumptions: (1) that research will lead to deployment, and (2) that deployment will carry undesirable impacts
Why slippery slope arguments are flawed

• Will BECCS research lead to deployment? Not necessarily. Steve Rayner: “patent offices are the graveyards of dreams”. Flexible and corrigible governance can help
• Will BECCS deployment carry undesirable consequences? Not necessarily. There are mitigation possibilities, alternative pathways and desirability is selective
• The imprint of slippery slope argumentation is deeply engrained in the dominant ‘top-down’ governance narrative: one that seeks to constrain or proscribe
• Before we can develop appropriate governance we need to understand plausible future trajectories of R&D: if they are not slippery slopes, then what are they?
Plausible future trajectories of R&D

- To explore uncertainties and ambiguities and to generate a richer array of trajectories, two separate groups developed scenarios for BECCS.

- They developed storylines for BECCS over the next 20 years, accounting for major events in technological development and governance. Each group produced a diagrammatic representation of their scenarios.
Challenges facing R&D: an uphill struggle

### Table 5-1: A summary of envisaged challenges facing BECCS development.

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<tr>
<th>Technical challenges</th>
<th>Political challenges</th>
<th>Societal challenges</th>
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<tr>
<td>Developing infrastructure at scale</td>
<td>Competition from alternatives</td>
<td>&quot;Climate engineering&quot; taint</td>
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<td>Limits to CO₂ sequestration</td>
<td>Environmental regulations</td>
<td>Merger of unpopular technologies</td>
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<td>Need for demonstration projects</td>
<td>Geopolitical disparities in uptake</td>
<td>Opposition from activist groups</td>
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<td>Safety of CO₂ storage</td>
<td>Need for effective carbon price</td>
<td>Potential for land-use conflicts</td>
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<td>Sustainability of biomass supply</td>
<td>Need for government investment</td>
<td>Risks to food production</td>
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Framing R&D: slippery slope or uphill struggle?

- But we cannot discount the possibility of slippery slopes: BECCS remains an ‘upstream’ technology
- Our knowledge about what might happen with BECCS and the probabilities of those things happening is necessarily incomplete
- There is a state of incertitude where conflicting judgements about the outcomes of BECCS R&D may be made
Governance implications of R&D framings

• Exposed flaws in slippery slope argumentation and emerging accounts of an uphill struggle suggest that a significant shift in governance is needed.

• Yet just as it is problematic to see a slippery slope and constrain or proscribe without knowing more about outcomes, so too would it be problematic to see an uphill struggle and incentivise without accounting for societal concerns.

• R&D must therefore be incentivised responsibly: there needs to be broad societal participation in defining the tools and terms of incentivisation.
Conclusions

1. Slippery slope arguments about BECCS are flawed in at least two fundamental ways: “patent offices are the graveyards of dreams”; mitigation strategies; alternative pathways; desirability is not universal

2. Expert scenarios suggest that future BECCS R&D resembles more of an ‘uphill struggle’: technical, political and societal challenges lie in stark contrast with portrayals of R&D as constituting a slippery slope toward deployment

3. Approaches to governing BECCS need to shift towards responsible incentivisation: there needs to be broad participation in defining the tools and terms of a governance shift in the direction of incentivisation