



**Climate change adaptation:
approaches to governing
the future**

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Overview

- Climate change adaptation
- Governing the future
- Scenarios
- What are we trying to achieve with adaptation?




Climate change adaptation

- Understandings of adaptation
 - Continual non-directed process; flexibility; resilience over time
 - Response to discrete disturbances
 - “Fitting to” (Collins and Ison 2009); local and key metaphor; unilateral adjustment; confinement; teleological
 - “Fitting with” (Collins and Ison 2009); bilateral, mutual accommodation; emergent; continual
 - Adaptation as repair (deficit model)
 - Adaptation as (opportunity for) improvement




Climate change adaptation


- Understandings of adaptation
 - ‘Adjustment in natural or human systems to a new or changing environment. Adaptation to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities’ (IPCC, WGII, 2001)

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- Understandings of adaptation
 - ‘**Adjustment** in natural or human systems to a new **or/and** changing environment. Adaptation to climate change refers to adjustment in natural or human systems in response to **actual or expected** climatic stimuli **and/or** **their effects**, which **moderates harm** or **exploits beneficial opportunities**’ (IPCC, WGII, 2001)

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- Questions about adaptation
 - Level?
 - Possible
 - Desirable
 - Direction?
 - Purpose
 - Relative to past and present
 - Timing?
 - Relative to ‘triggers’
 - Sequencing

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- Questions about adaptation
 - Success?
 - Effectiveness
 - ‘Goodness’


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- Questions about adaptation (Smit et al (2000))
 - What is adaptation? How is it understood?
 - What is the goal of adaptation? What are we trying to achieve?
 - What is adaptation in response to?
 - Who or what adapts?
 - How does adaptation occur?
 - How well does adaptation occur?


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'Inadequate consideration of underlying influences' results in **poor problem definition**, which leads in turn to 'problems being defined in terms of symptoms rather than causes' and strategies and actions being formulated which risk not only failing to solve the problem but making it worse.


(Steve Cork, 2010, in *Resilience and Transformation*)

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- Questions about adaptation: focus today
 - What is adaptation? How is it understood?
 - What is the goal of adaptation? What are we trying to achieve?
 - What is adaptation in response to?
 - What is the future in relation to climate change? How is it understood?
 -

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- Adaptation as 'governing the future'
- What is that future like?
- Is climate change "closing" or "opening" it?

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- Climate change as "closing the future"
 - Awareness of our biological limitations
 - Climate envelope contracting
 - Options contracting
 - More 'rules' on our existence

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- Climate change as “opening the future”
 - Uncertainty
 - Additionality
 - Novelty
 - Sensitivity – multiple invisible unimagined triggers
 - Rise of low probability, high consequence possibilities
 - ‘Future as surprise’
 - Expectations in disarray
 - ...More rules... but we don’t know what they are

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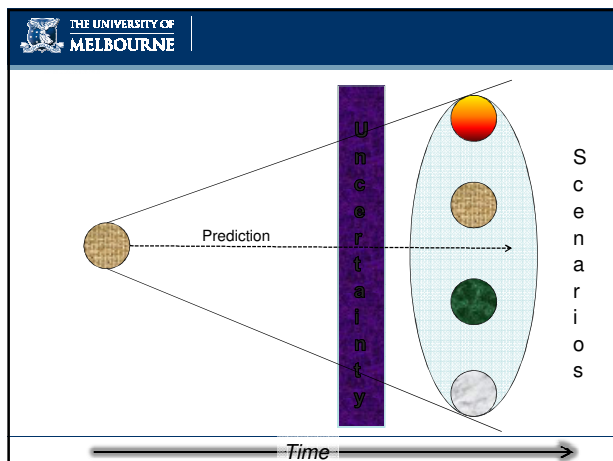
- How do we manage the future in such conditions?
- How do we ‘bring the future into the present’? How do we govern it?

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- Adaptation as an ‘anticipatory logic’
 - How we formalise, justify and deploy action (including delay, planning) in the here and now on the basis of some understanding of the future
- Future: complexity, uncertainty, threat
- ‘Future as surprise’
- Future as multiple
- Utility of prediction limited

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- Multiple possible futures
- Descriptions of internally consistent, plausible futures
- Integrate broad range of knowledges
- Give authority to imagination
- Process and outcome
- Get people thinking, talking



Scenarios

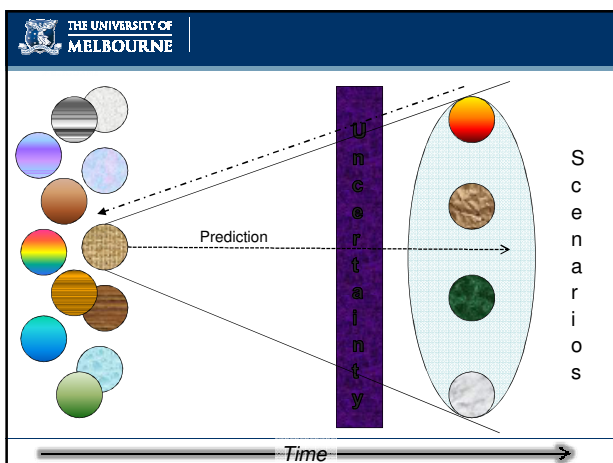
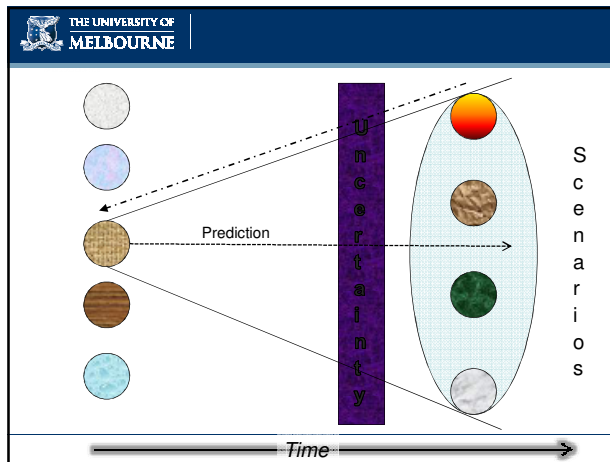
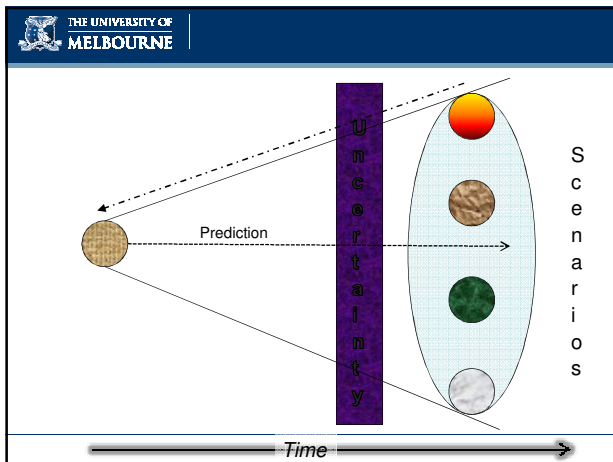
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Scenarios

- 'Poor man's prediction?'
- Quantification often unnecessary
- Valuable in own right
 - Open minds
 - Explore relationships, repercussions
 - Explore values, choices
 - Help make alternatives 'real'
 - Help plan transitions

Scenarios

- *But*
 - Limited imagination often evident
 - Pervasive influence of predictions, dominant visions, cultural constructs
 - *Need* for alternative visions
 - Focus on future at expense of present?
 - Presumption of single present?
 - Uncertainty about future not only cause of diversity



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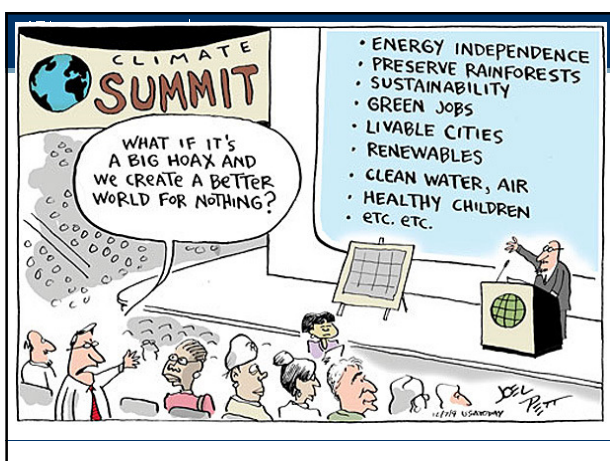
- Adaptation as repair
 - Partial repair
 - Economic pragmatism
 - Triage
 - Which impacts?
 - Whose impacts?
 - Adaptation impacts?
 - Full repair
 - Egalitarian
 - Unrealistic? Depends on definition of impacts/harm

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- Maladaptation
 - 'Action taken ostensibly to avoid or reduce vulnerability to climate change that impacts adversely on, or increases the vulnerability of other systems, sectors or social groups' (Barnett and O'Neill, 2010, *Global Environmental Change* 20: 211-13)
 - Adds equity considerations to those of effectiveness
 - Considering impacts of adaptation greatly broadens array of impacts

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- Adaptation as improvement
 - Uncertainty as source of positive possibility
 - Long held attitude of modernity
 - Adaptation as opportunity, potential
 - What does it offer? Competing visions of its potential
 - 'Co-benefits'
 - Alignment with and reinvigoration of development
 - Or justification for long-awaited societal change
 - Adaptation as 'no regrets' option




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But all change involves choices, values, costs

'Any type of anticipatory action will only provide relief, or promise to provide relief, to a *valued life*, not necessarily all of life. Certain lives may have to be abandoned, damaged or destroyed in order to protect, save or care for life'

(Ben Anderson, 2010, *Progress in Human Geography*, in press)

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- Adaptation as improvement
 - Dependent on perception of humanity's trajectory to date
 - Progressivist?
 - Declensionist?
 - Dependent on perception of humanity's and the planet's current condition
 - Adaptation as next chapter of civilization
 - Need tools to help us envisage, plan, enact


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