What are adaptation pathways?

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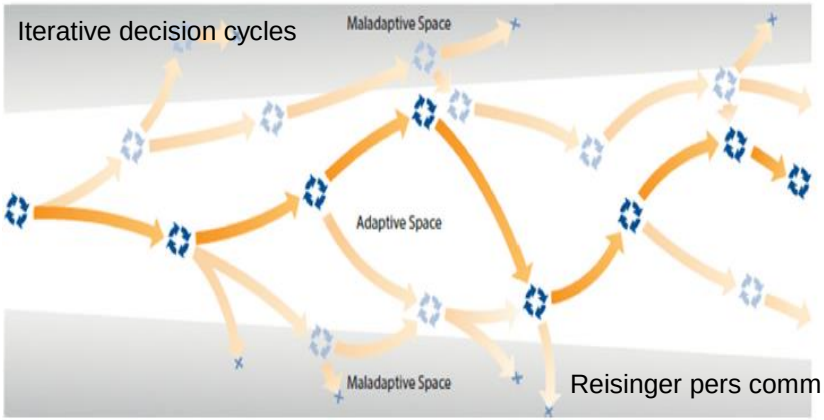
ASSAR Webinar - "Adaptation pathways: From concept to Practice"

Outline

- What are adaptation pathways?
- Why an adaptation pathways approach?
- Adaptation pathways for context?
- Emerging principles for adaptation pathways

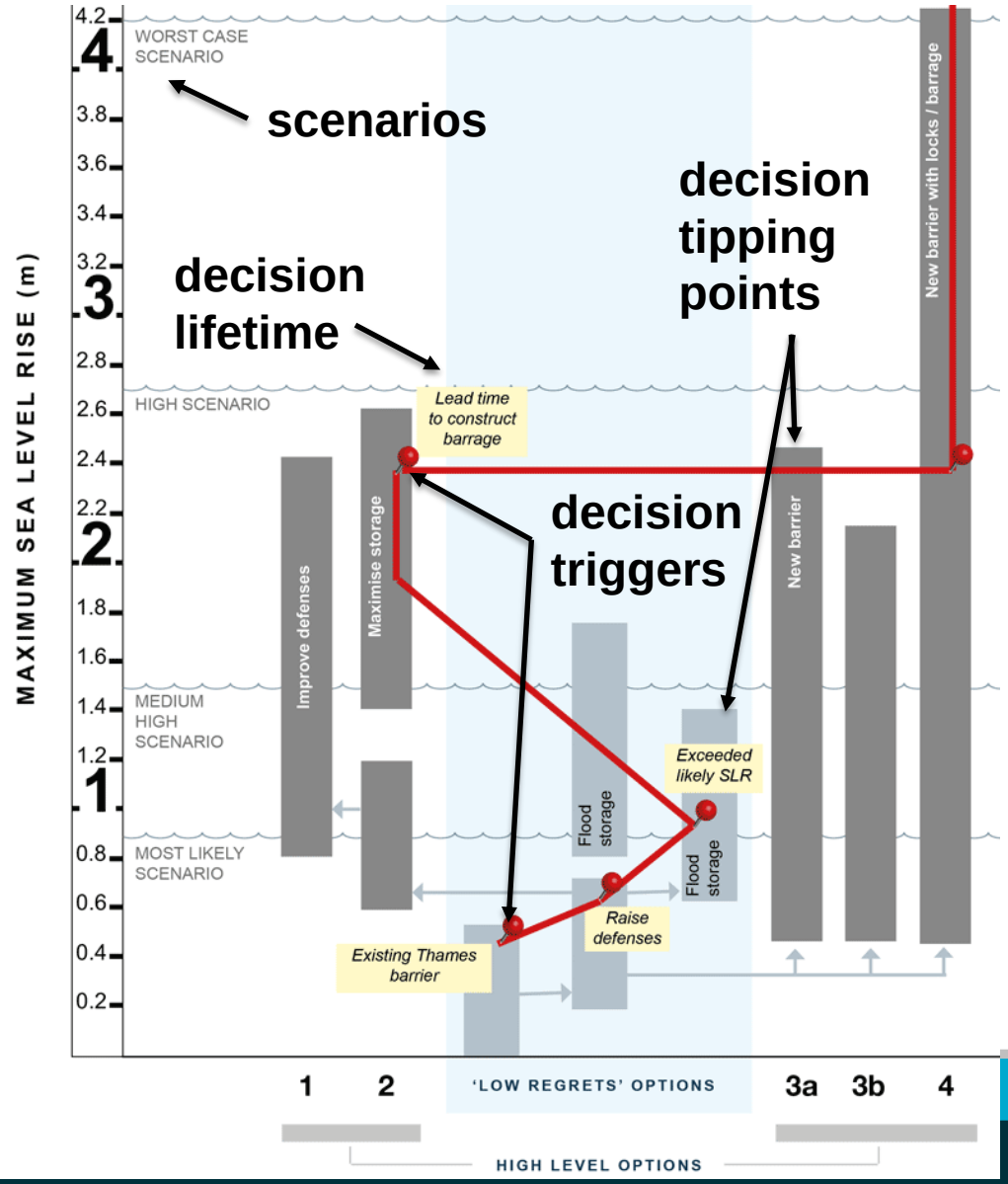
Adaptation Pathways

- "Pathways" is a powerful **metaphor**
  - Understood across cultures, worldviews and disciplines
  - Useful for creating narratives explaining changes over time



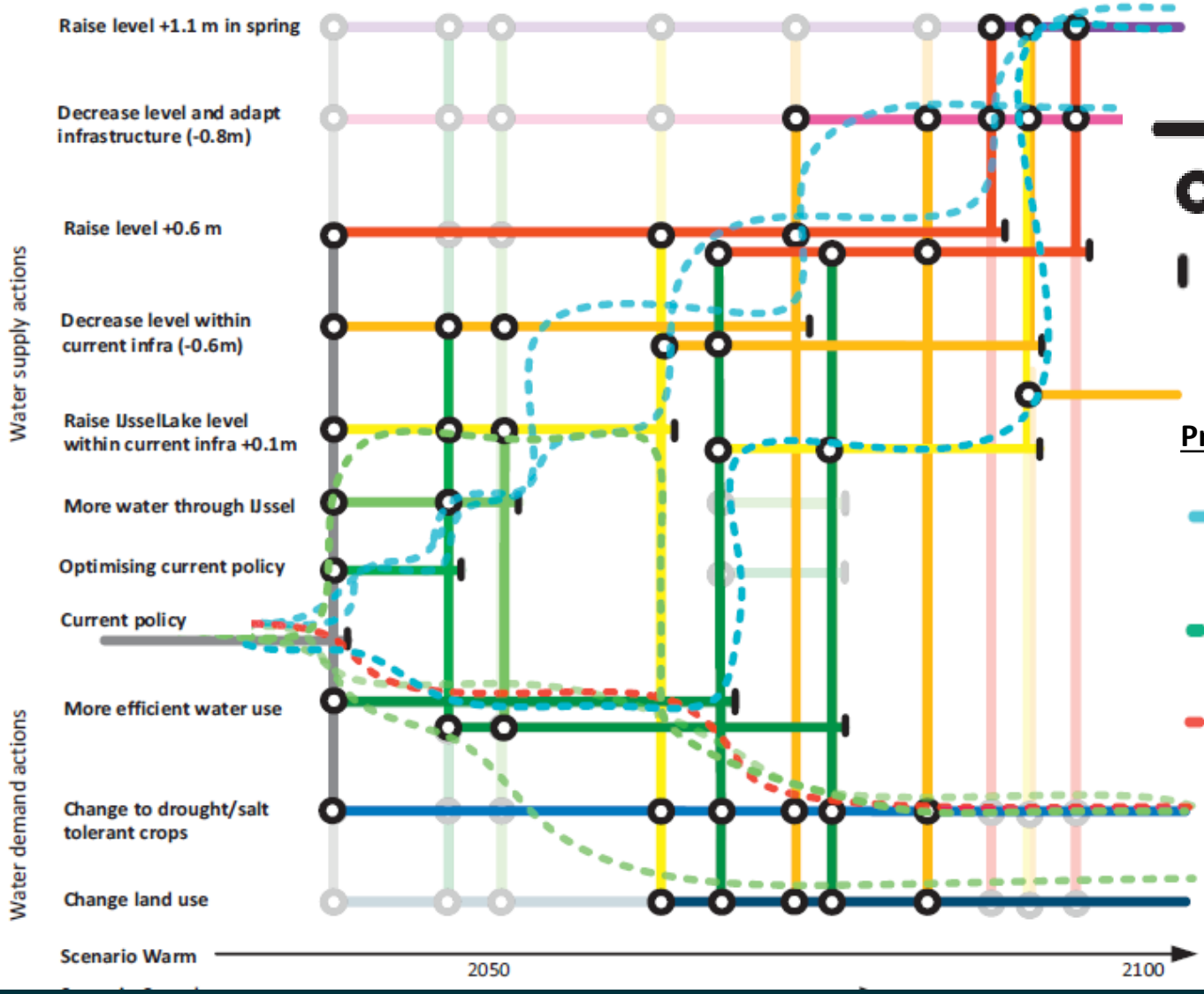
- A **conceptual framework**
  - Used to help people diagnose, frame and visualise the consequences of changes and responses over time
- An ***analytical and learning approach and process***
  - ***To inform strategic, adaptive*** planning and decision making under uncertainty

Adaptation Pathways



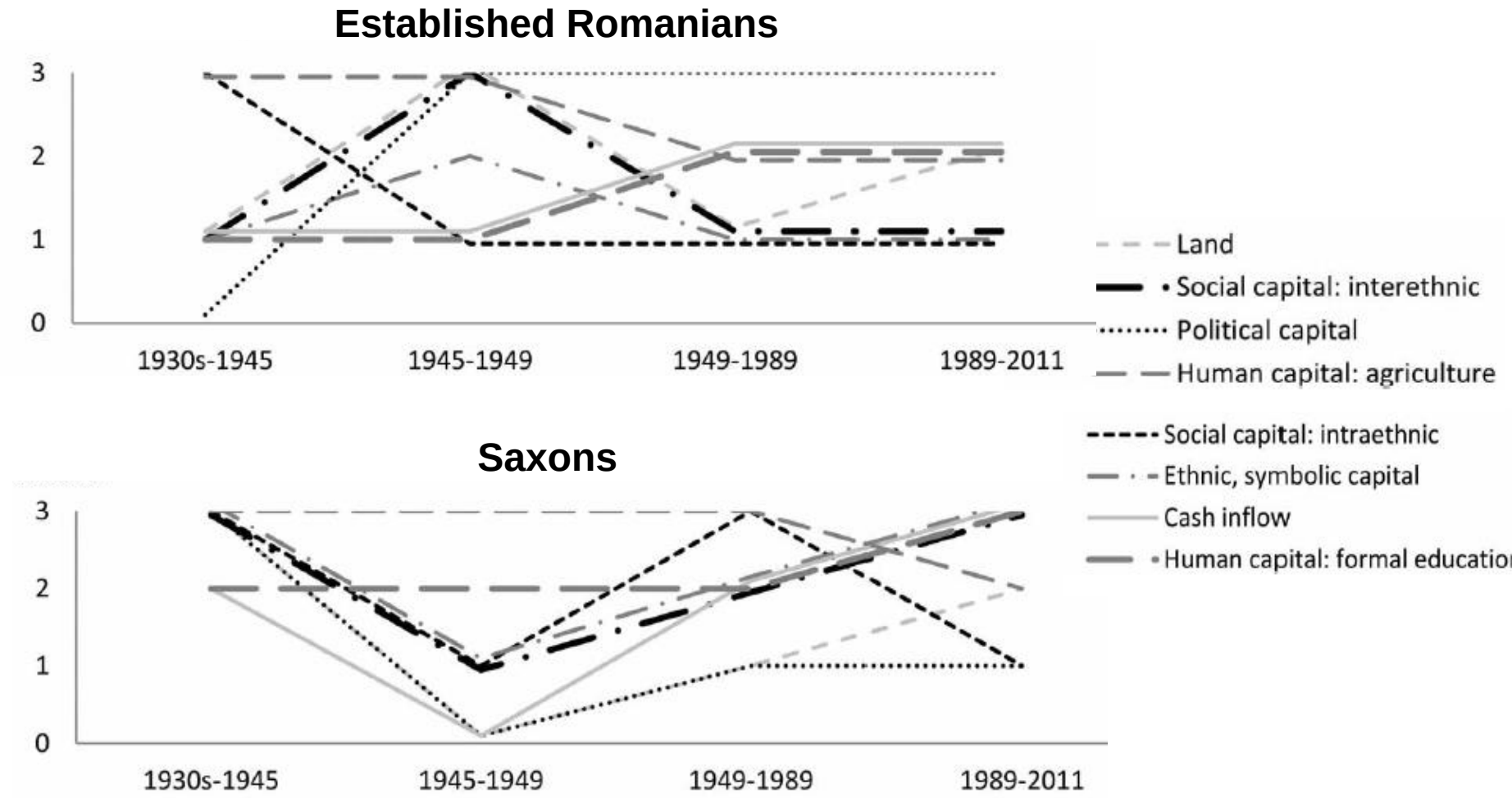
Reeder and Ranger (2011)

Adaptation pathways – The Rhine Delta



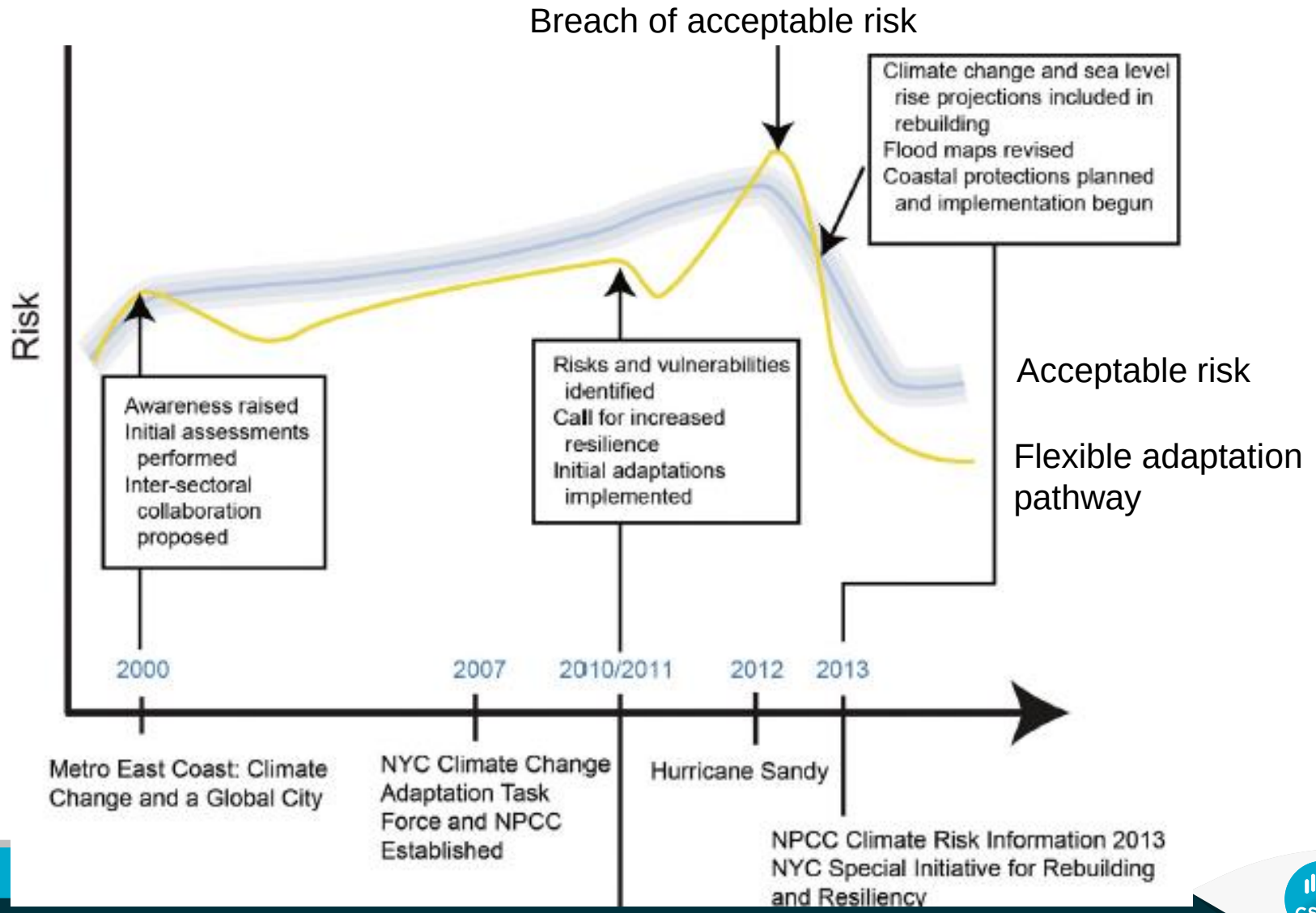
Haasnoot et al., (2013): Dynamic adaptive policy pathways

Adaptation Pathways of socio-ethnic groups



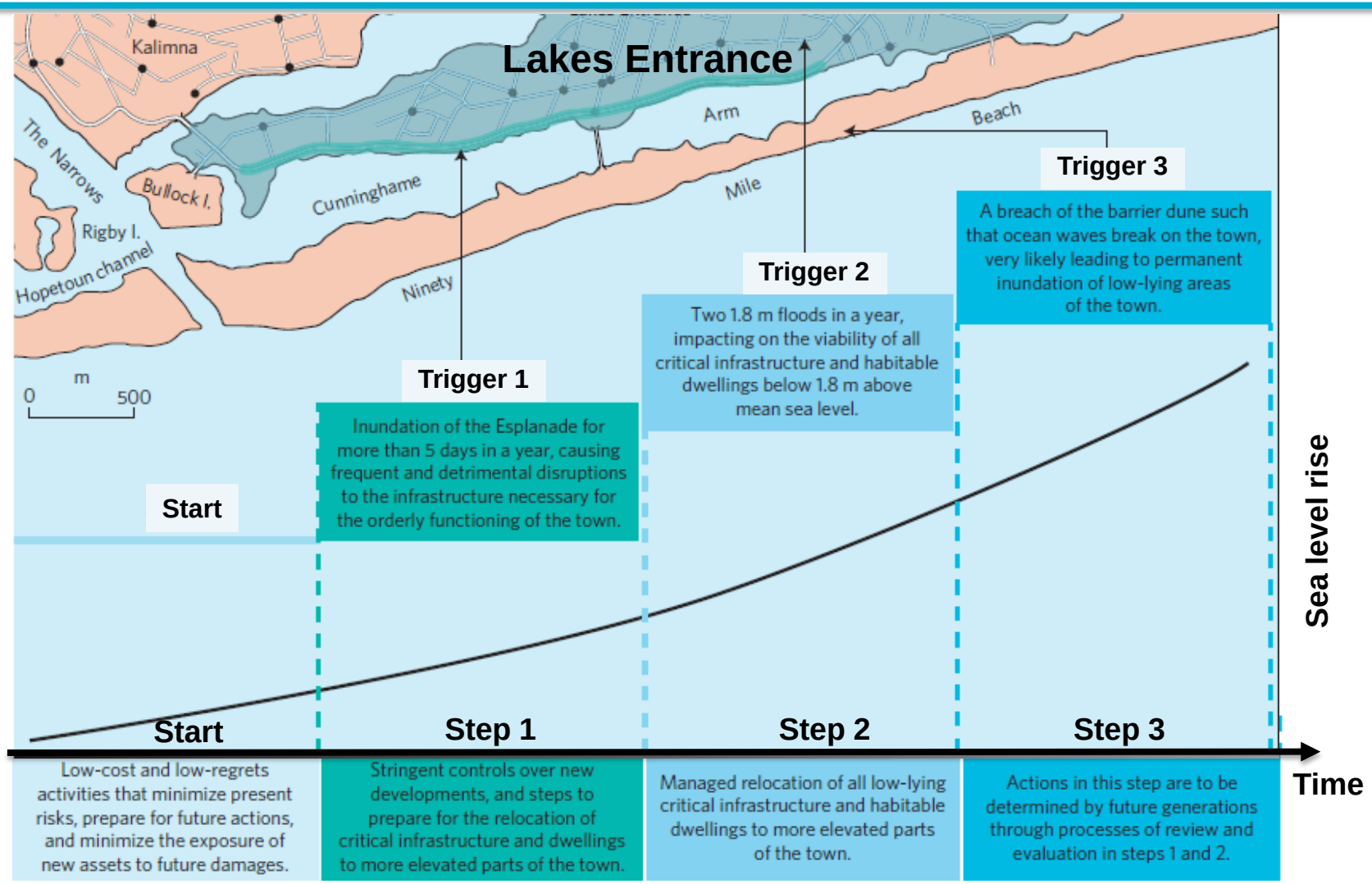
(Câmpeanu & Fazey, 2014)

Pathways of evolving socio-technical systems



Rosenzweig & Solecki (2014)

Local adaptation pathway for Lakes Entrance



(Barnett et al. 2014)

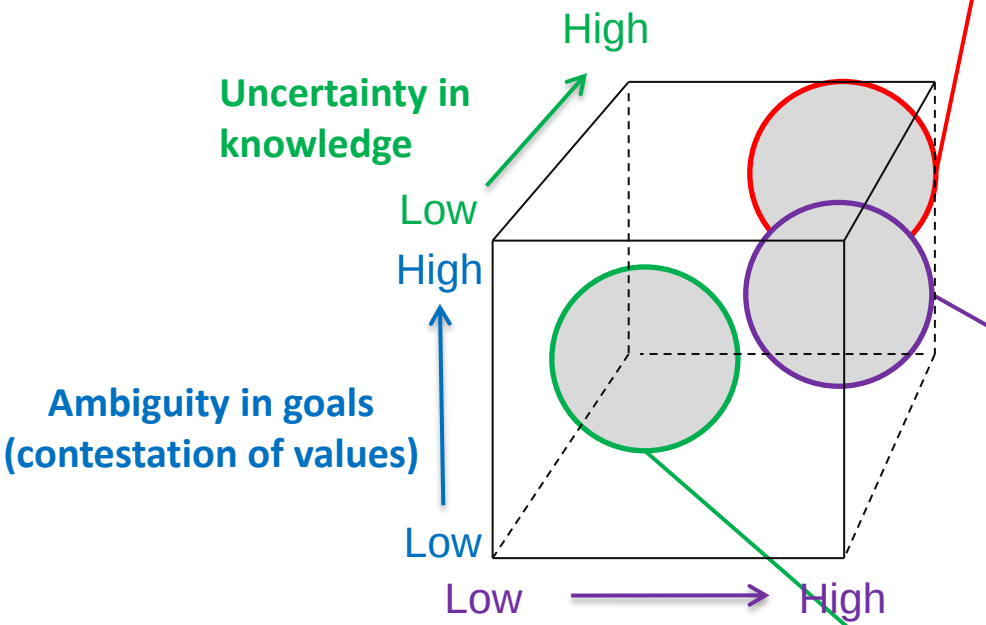
Consistencies across all pathways approaches

- Designed to **incorporate flexibility** into planning to deal with uncertain often novel change
- Have **learning** as a key objective and underpinning process
- Based on understanding of **scenarios, thresholds, adaptation tipping points, decision triggers,** and **decision lifetimes**
- Focus on **decision makers** or **decision processes** as opposed to geographical regions
- Guided by the goals of **avoiding maladaptation** and staying within **boundaries of acceptable risks**
- Can be translated into **visual aids** such as route maps for communication purposes

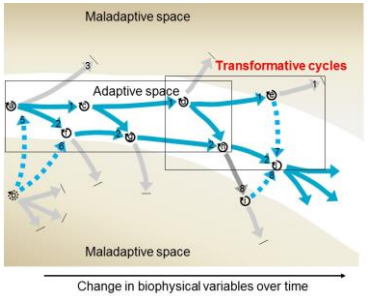
Why an adaptation pathways approach?

- Widely understood across cultures and disciplines
- Powerful visualisation tool of interdependencies between current decisions and future uncertain changes
- **Decision / actor focused** in order to:
  - Ensure the constraints and agency of actors is considered;
  - Recognise multiple subjective, often contested, pathways exist
  - ***Overcome decision paralysis often created by problem-focused approaches*** (e.g., risk and vulnerability assessments)

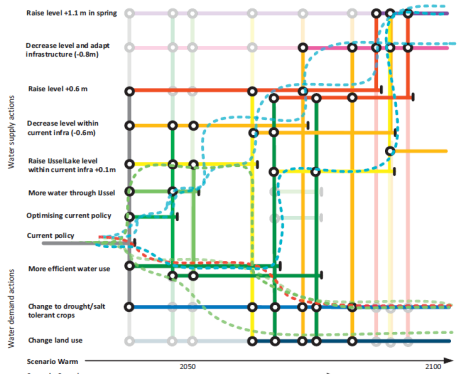
Adaptation pathways for context?



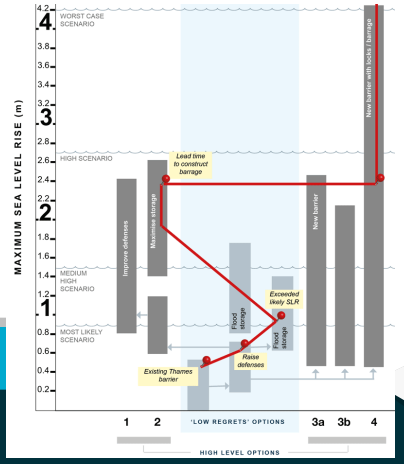
Adaptation for transformation



Adaptation in contested high reliability contexts

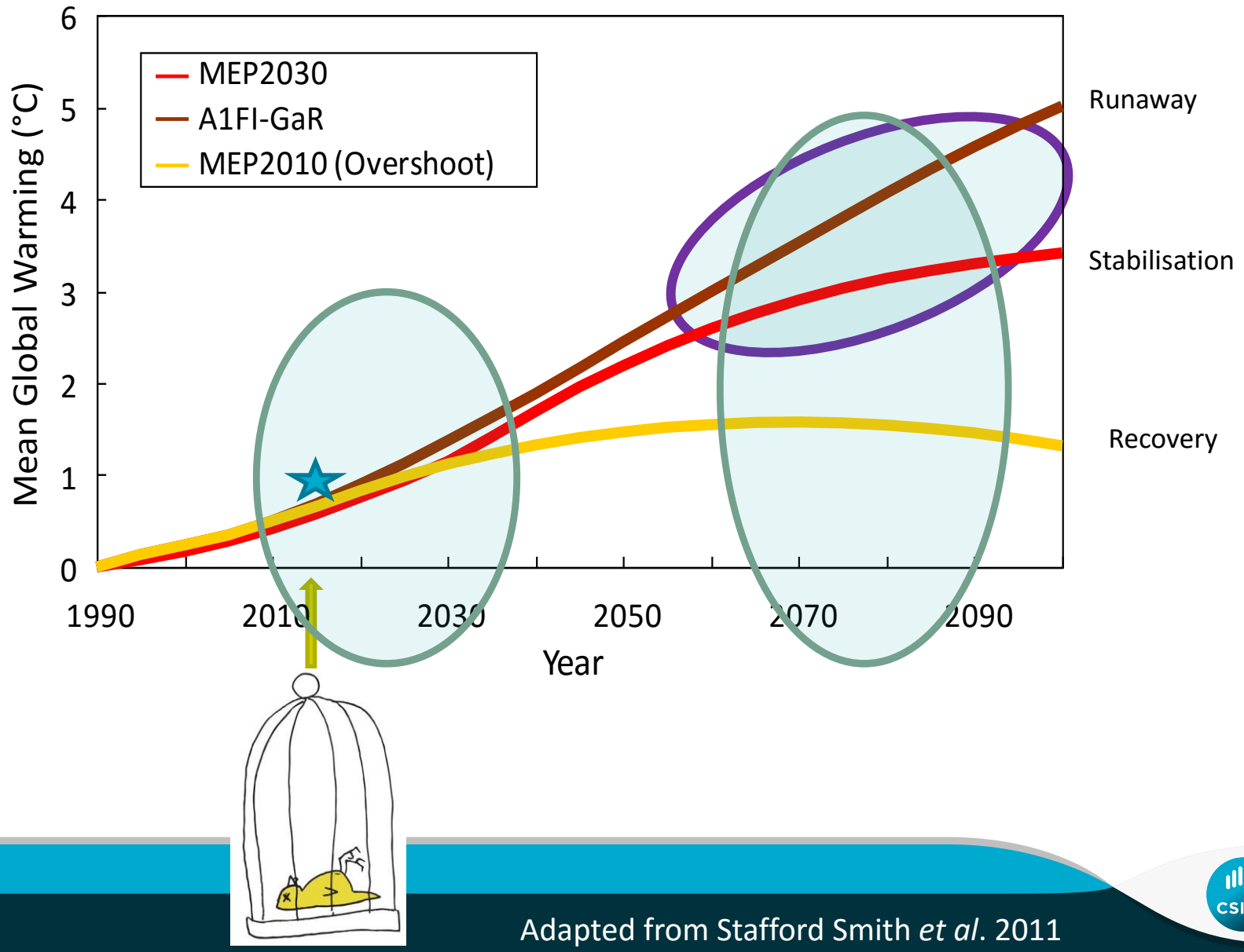


Adaptation in high reliability contexts



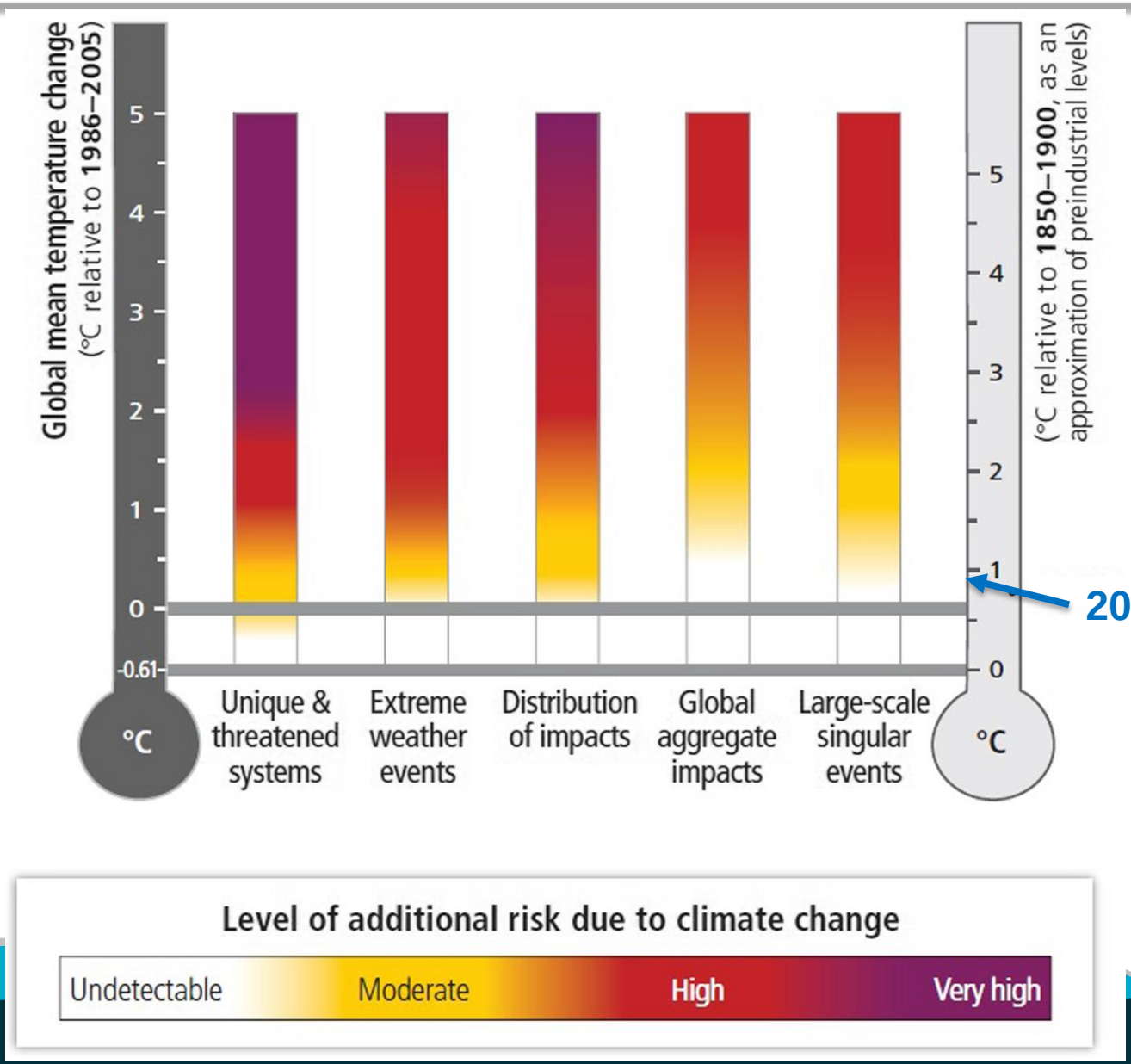
Voß et al., (2007) Environmental Policy and Planning

Adaptation pathways for transformation



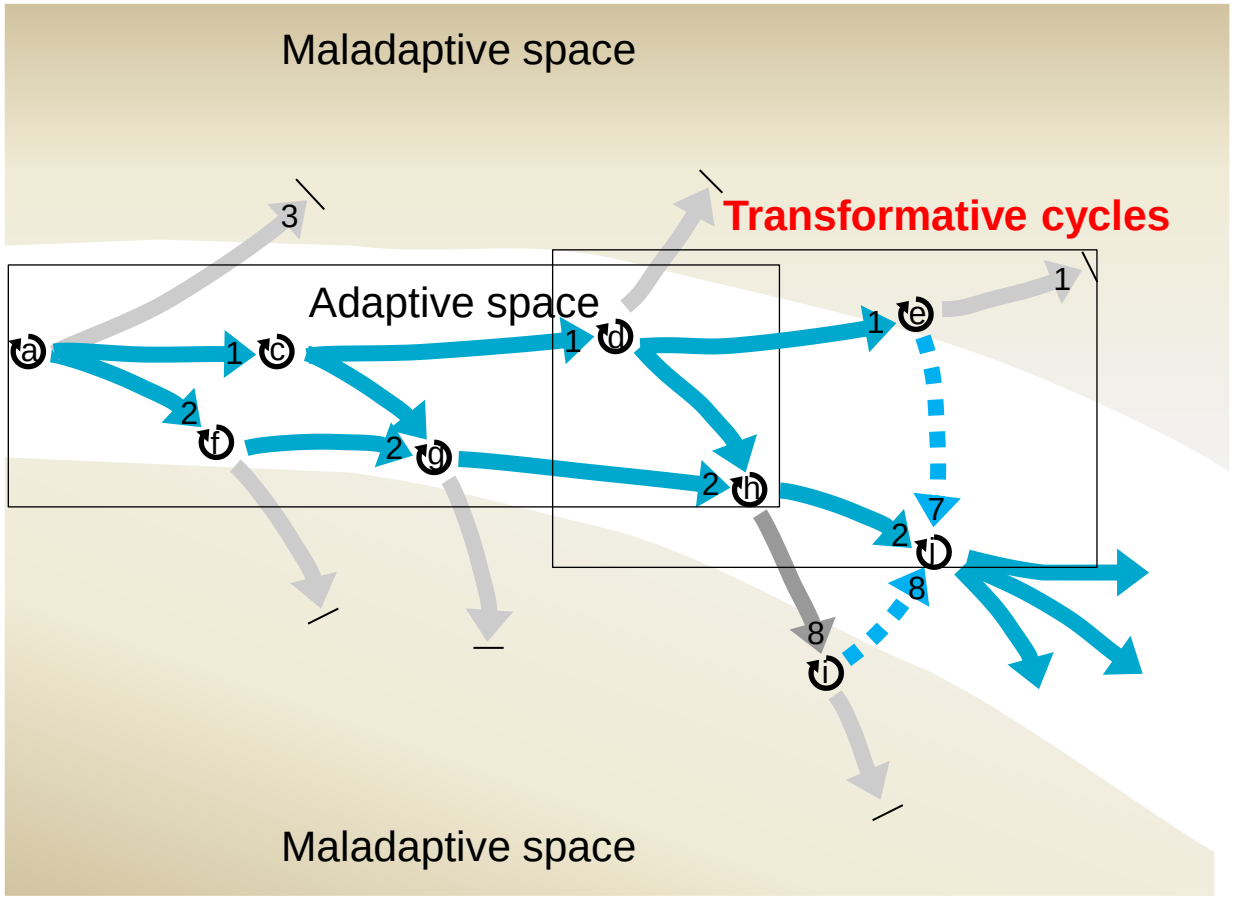
Adapted from Stafford Smith *et al*. 2011

Adaptation pathways for transformation



Adaptation pathways for transformation

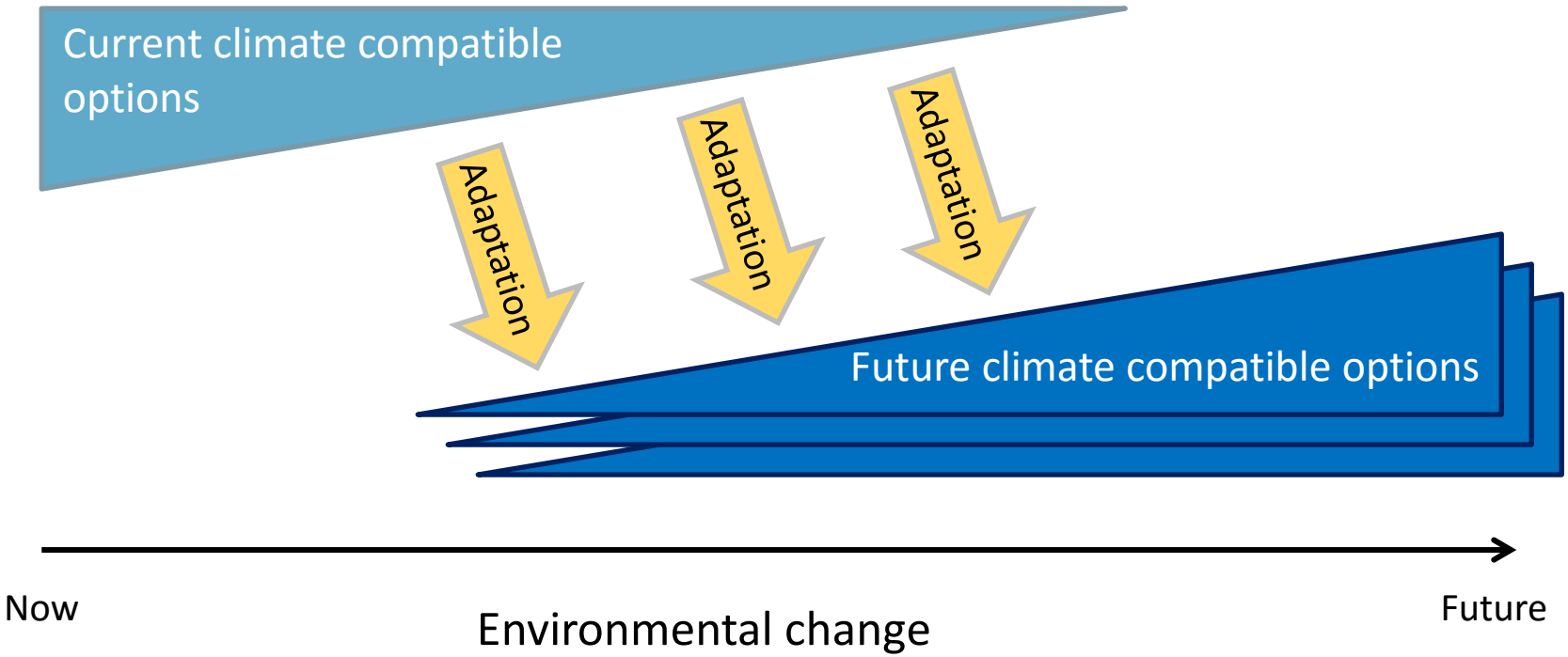
Adaptation pathways: As a diagnostic tool



Adaptive landscape, affected by changing climate but also other drivers and other actors' responses

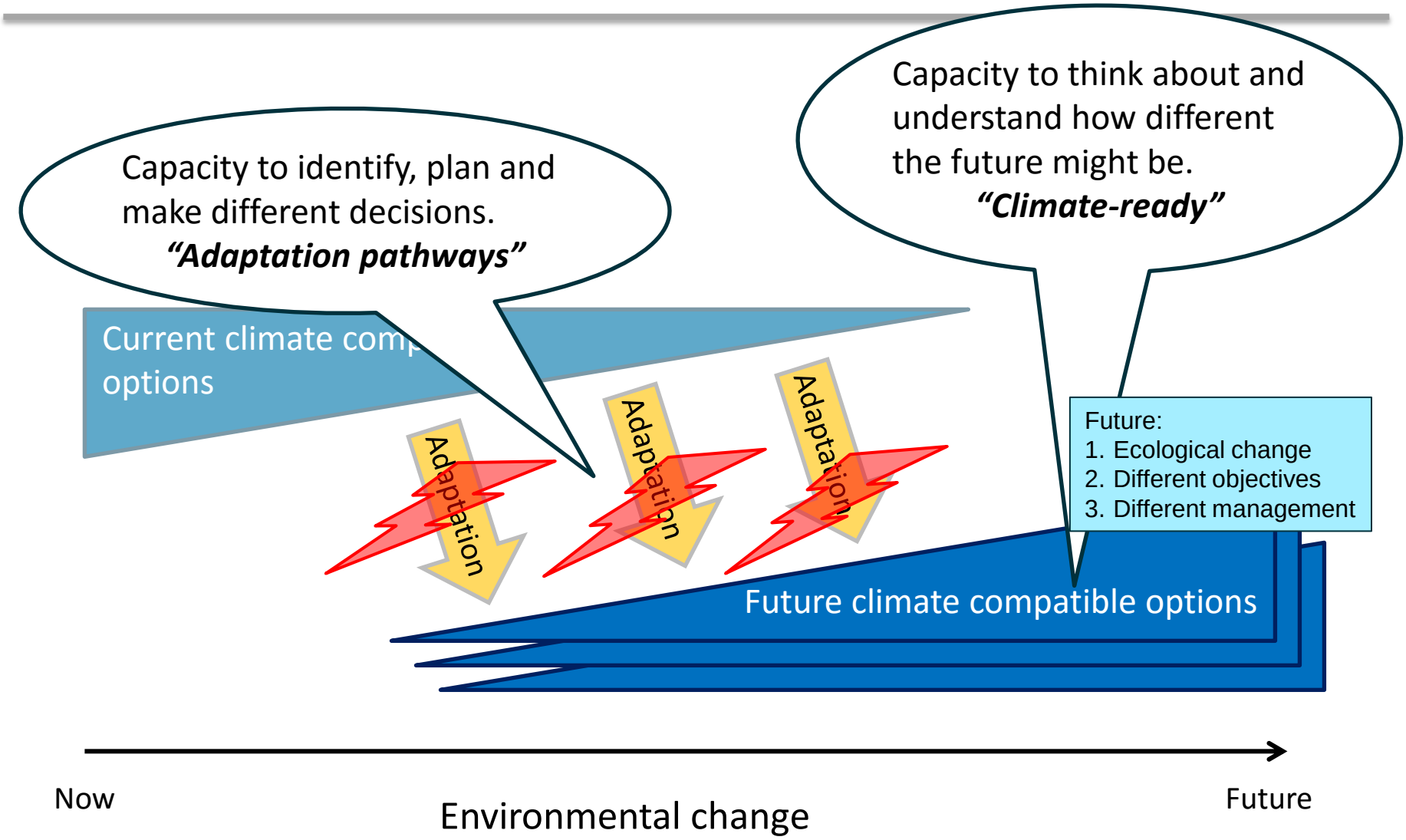
Wise *et al.* (2014). Global Environmental Change

Adaptation pathways for transformation



Adapted from Dunlop and Ryan (2016)

Adaptation pathways for transformation



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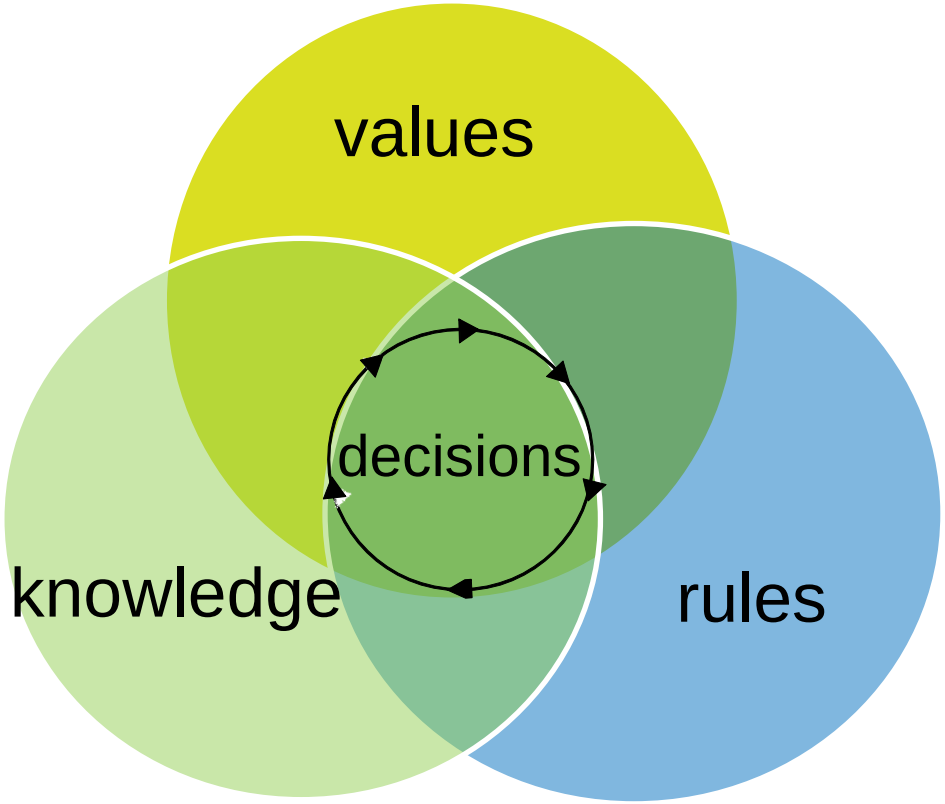
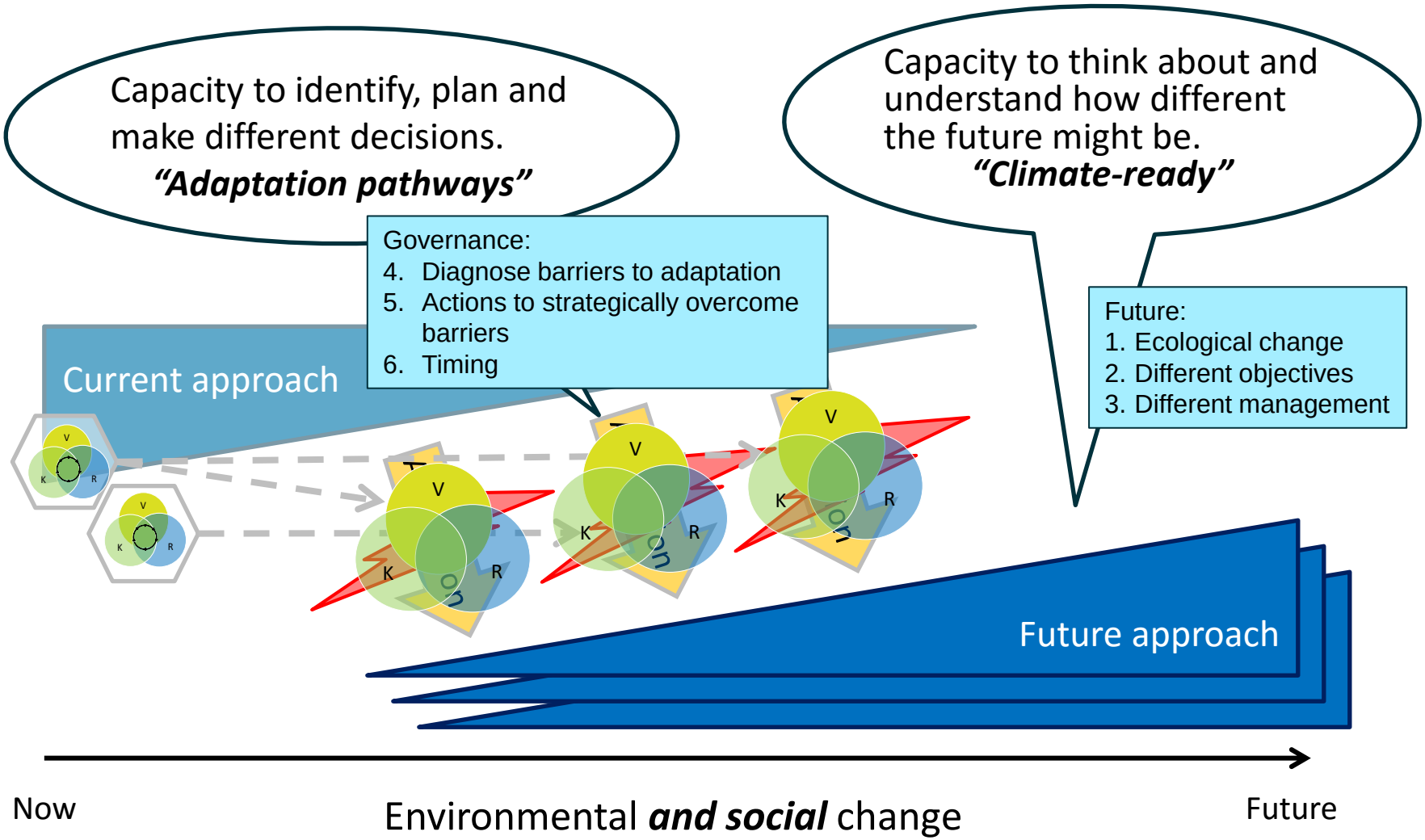
Decision context matters



Gorddard et al. (2016). Environmental Science and Policy

Adaptation pathways for transformation



Adapted from Dunlop and Ryanb (2016)

Adaptation pathways for context?

The choice of adaptation pathways approach is influenced by:

1. The capacity of stakeholders (resources, experience, trust)
2. The projected or expected magnitude of change
3. The levels of uncertainty (real and perceived) about change and ambiguity in goals
4. The numbers of affected stakeholders across jurisdictions
5. Barriers and opportunities to decision making – rules, values and knowledge

Adaptation pathways principles

- Focus on decisions or decision makers and understand their context
- Monitor and *learn* from responses and environmental changes (preferences/values, tipping points, thresholds, path dependency)
- Focus on linking long-term climate implications to immediate needs without closing off options (‘act in spite of uncertainty’)
- Develop new ways of thinking about / imagining the future under unprecedented transformational change
- Expect to tackle systemic (vrk) causes of vulnerability while being aware of the ‘mainstreaming-transformation’ paradox
- Expect, understand and plan for the politics of multiple subjective pathways

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Thank you