

Climate Change Adaptation: Recent advances

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Better living for all—sustainably

Outline

- **Adaptation refresher**
- **Adaptation and development**
- **Adaptation policy**
- **Emerging questions**

Climate change adaptation: Quick review of basics

Rationale

- **Rationale:** CC impacts observed and more expected. Therefore, we must manage (prevent, anticipate, moderate, accommodate, recover from) them.
- NB: CC manifest as both increased variability and long-term, transformational changes

Definition

- Adjustments in **human and/or natural** systems in response to **actual or expected** changes in climate to **reduce adverse impacts or take advantage of opportunities**
- Adaptation of what? To what (when)? Why?
- Autonomous and **planned** adaptation

Approaches to conceptualizing and planning adaptation

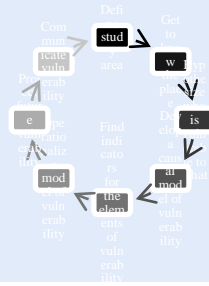
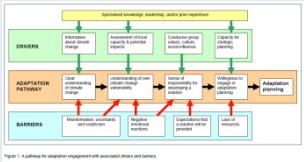
	1 st generation	2 nd generation
Assessment process	Outside experts , impacts, lists	Internally-driven, embedded in devt
Primary climate driver (adaptation to what?)	Future climate change	Existing climate variability
Methodological focus	Scientific models	Understanding vulnerability
Systems focus (who or what adapts?)	Biophysical systems	Human systems
Understanding of vulnerability	End point, post-impact (biophys)	Starting point (social)
Adaptation as...	A discrete intervention	<u>Social learning process</u> , capacity



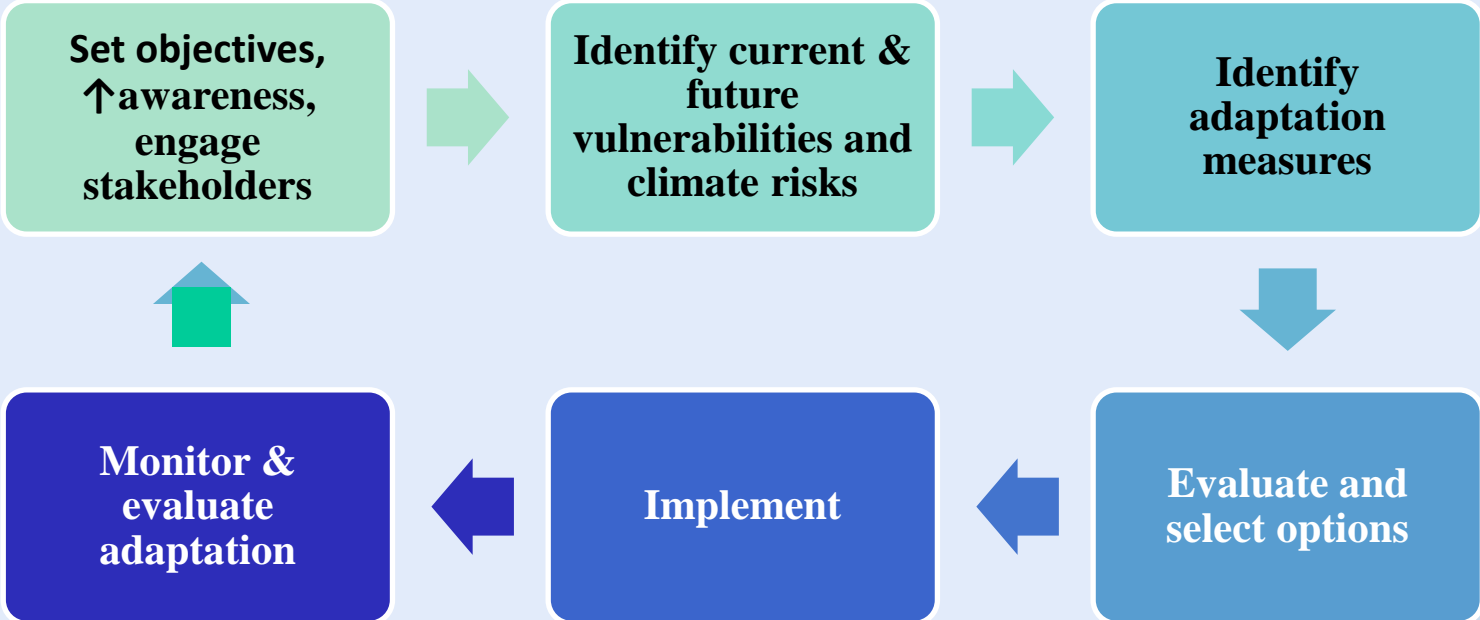
3rd Generation: Climate Risk management?

- ‘Climate adaptation’ (World Bank)
- ‘Climate Risk Management’ (UNDP)
- Approach and practice of considering climate-related trends and events in development decision-making
- Consider historical, current, and future projections: changing nature of climate risk
- Bring together CCA and DRR

The (planned adaptation) process



- Build adaptive capacity**
 - Gather and share info
 - Create supportive institutional framework
 - Create supportive social structures
- Reduce vulnerability**
 - Bear losses
 - Share losses
 - Avoid or reduce exposure
 - Exploit opportunities



- ✓ Resource allocation
- ✓ Capacity needs
- ✓ Partnerships
- ✓ Contingency plans
- ✓ Knowledge sharing
- ✓ Documentation

- ✓ Economic efficiency
- ✓ Flexibility
- ✓ Urgency
- ✓ Low cost
- ✓ Equity
- ✓ Institutional feasibility
- ✓ Unique or critical resources
- ✓ Health and safety
- ✓ Consistency
- ✓ Private vs. public sector



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Adaptation measures (Burton et al. 1993)

- **Bear losses:** do nothing
- **Share losses:** spread burden of losses
- **Modify threat:** CC mitigation or hazard-specific
- **Prevent losses:** continue in a modified way
- **Change use:** stop activities, substitute
- **Change location:** move activity or system
- **Research** into CCA technologies, approaches
- **Educate, inform, behavioural change**

Climate adaptation and development

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How is it different from development?

- Intertwined: Pursuing SD in a changing climate means adaptation is part of the agenda
- CC adds real costs and uncertainties, but SD addresses all drivers of risk – can't parse and allocate resources between adaptation & devt
- The difference is in the information used & planning methods / processes:

“The uniquely “adaptive” elements of most efforts are those involved in defining problems, selecting strategies, and setting priorities—not in implementing solutions.”

McGray et al, 2007

Addressing the Drivers of Vulnerability

Improving fundamental factors to reduce vulnerability to poverty and harm, with limited direct attention to climate factors, e.g. health, education, women's rights, accountability.

Building Response Capacity

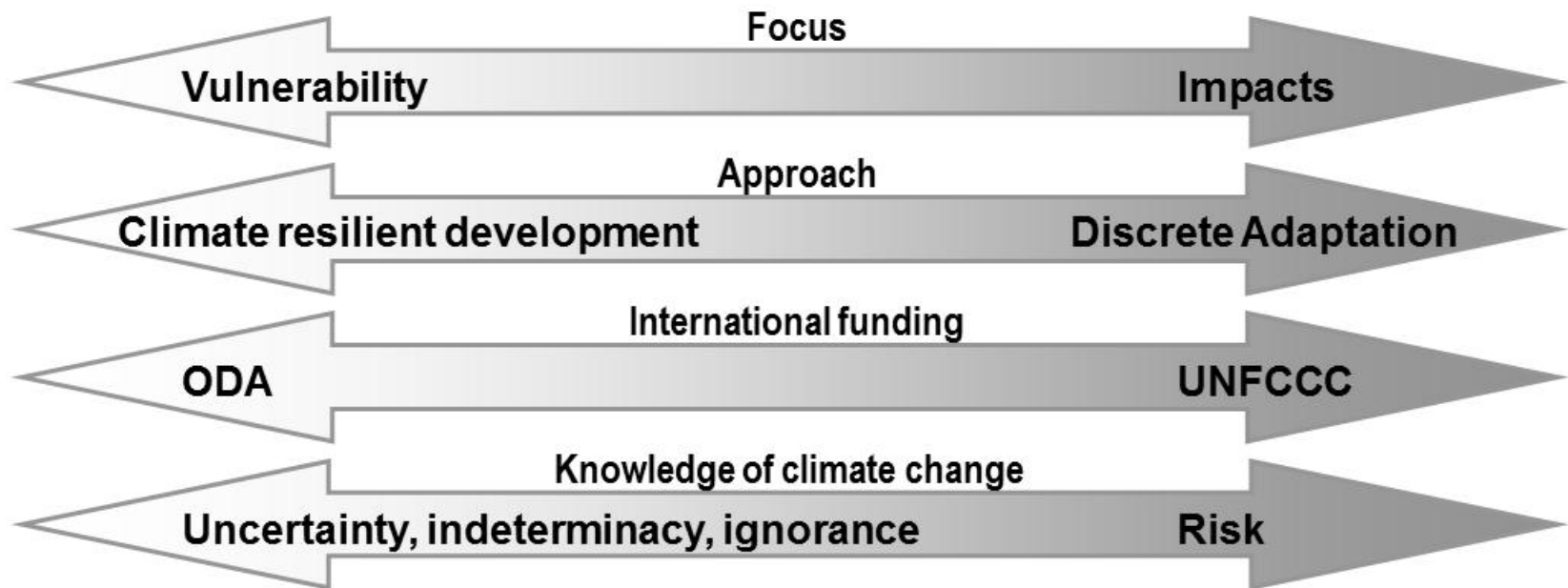
Building robust systems for problem solving for both climate and non climate related activities, e.g. communications and planning processes, weather monitoring, and natural resource management practices.

Climate Risk Management

Integrating climate information into decisions to reduce negative effects on resources and livelihoods, e.g. disaster management, drought-resistant crops, "climate-proofing" infrastructure.

Confronting Climate Change

Focusing almost exclusively on climate change impacts, typically targeting climate risks that are outside historic climate variability, e.g. tackling sea level rise or glacial lake floods.



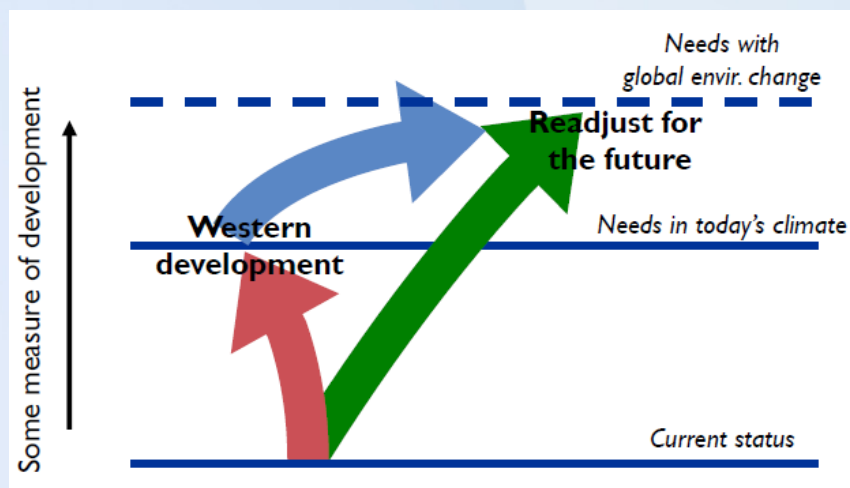
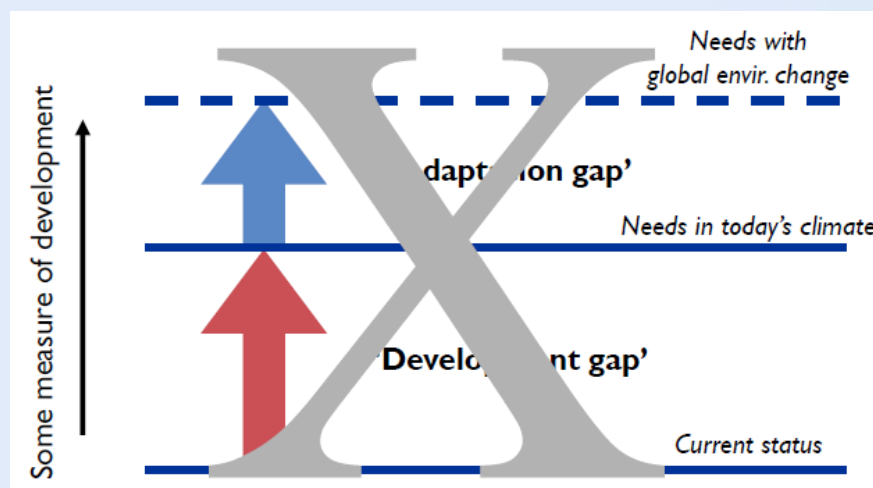
Tanner and Mitchell, 2008; McGray *et al* 2007

Adaptation can mean a contribution anywhere along the continuum

- Addressing the “adaptation deficit”:
Resilience building, increasing human and institutional capacity to manage risks
- Adapting to incremental changes in existing climate risks: Climate-proofing. Address variability with presumed long-term benefits
- Adapting to transformational change
(IIED 2012; WB 2012)

Securing more money to cover the 'adaptation increment' vs. using money differently

- Climate change may mean reprogramming money altogether, not topping up existing approaches
- Are we capable and ready to do this?



Stafford Smith, M. (CSIRO) 2012

Where are current CCA efforts focused?

- First two categories
- Adaptation Review (2011):
 - Sectors: agriculture, water, coastal zones, human health and forestry
 - Process: creating an enabling environment (research/assessment, capacity, policy)
- More interest now in: Costs, M&E, private sector, food security, links to DRR, uptake

Adaptation policy

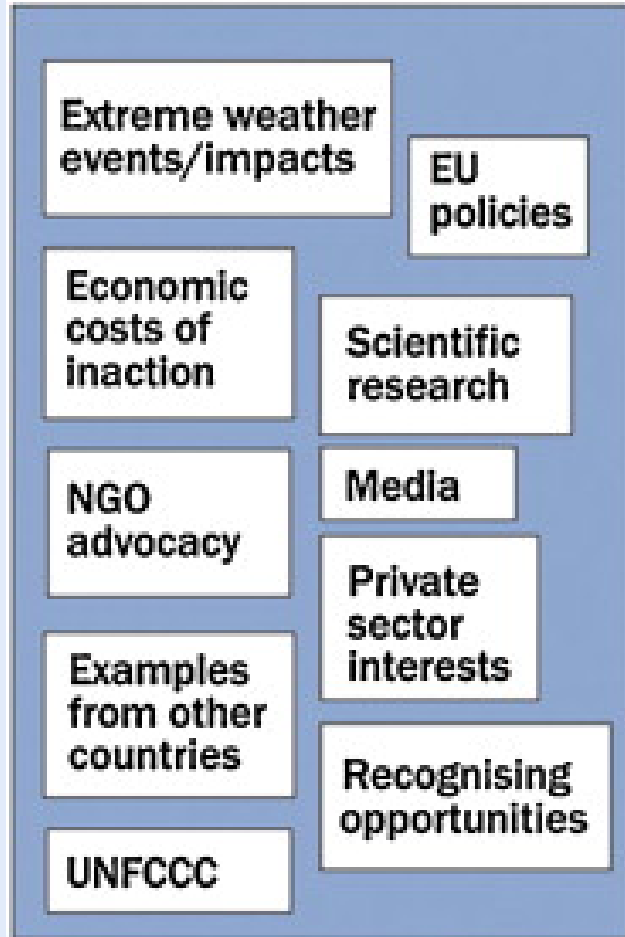
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National and sub-national level

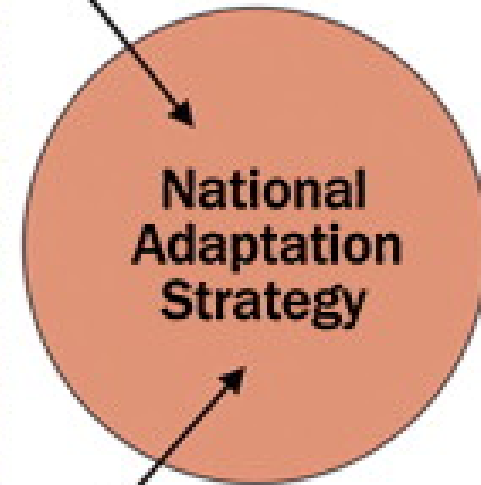
- National adaptation strategies and plans
 - NAPAs for urgent and immediate needs
 - NAPs for medium- and longer-term
 - National Adaptation Strategies
- Mainstreaming into development
 - Cook Islands national SD strategy
 - Mali flood forest management project

Drivers and facilitators of adaptation policy

Key drivers for adaptation policies



Key facilitating factors for adaptation policy



International: UNFCCC

- Cancun Adaptation Framework
 - **Implementation** (National Adaptation Plans. Loss and Damage)
 - **Support** (long-term, scaled up, predictable, new and additional finance, tech, capacity)
 - **Institutions** (Adaptation Committee, regional centres and networks)
 - **Principles**
 - **Stakeholder engagement**

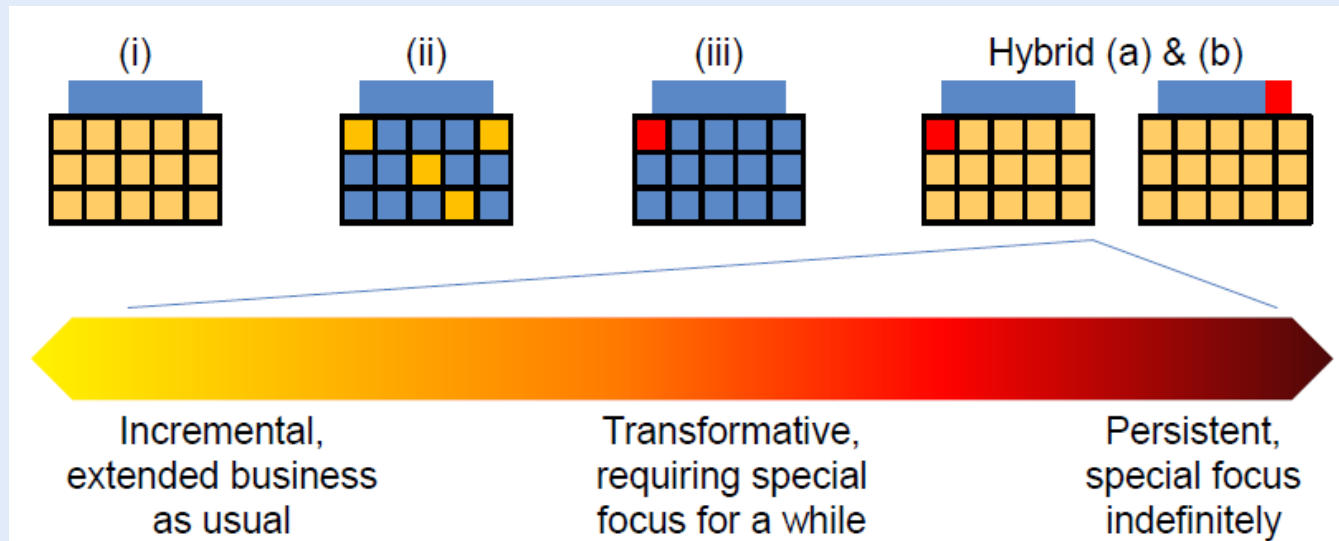
Some emerging questions on adaptation

Do development projects / programs really do adaptation?

- Lifetime of a typical (non-infrastructure) development project or program → leaving capacity to adapt
- “Plan your legacy”
- What does this mean for monitoring and evaluation? Process vs. outcome / impact

Is mainstreaming always good?

- Assumption is yes
- Can be premature – lose the issue if institutions aren't actually ready for it

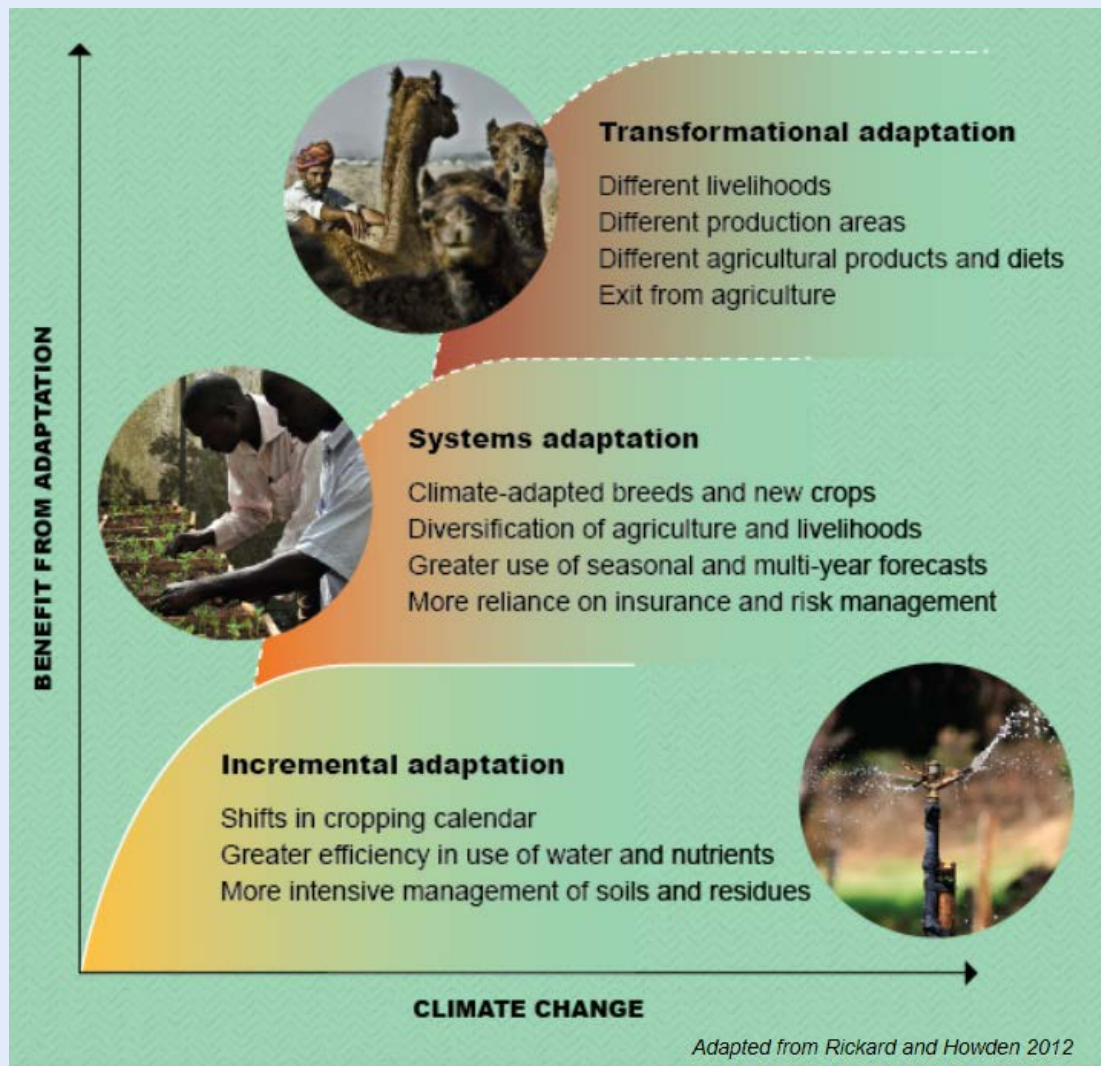


Stafford Smith, M. (CSIRO) 2012

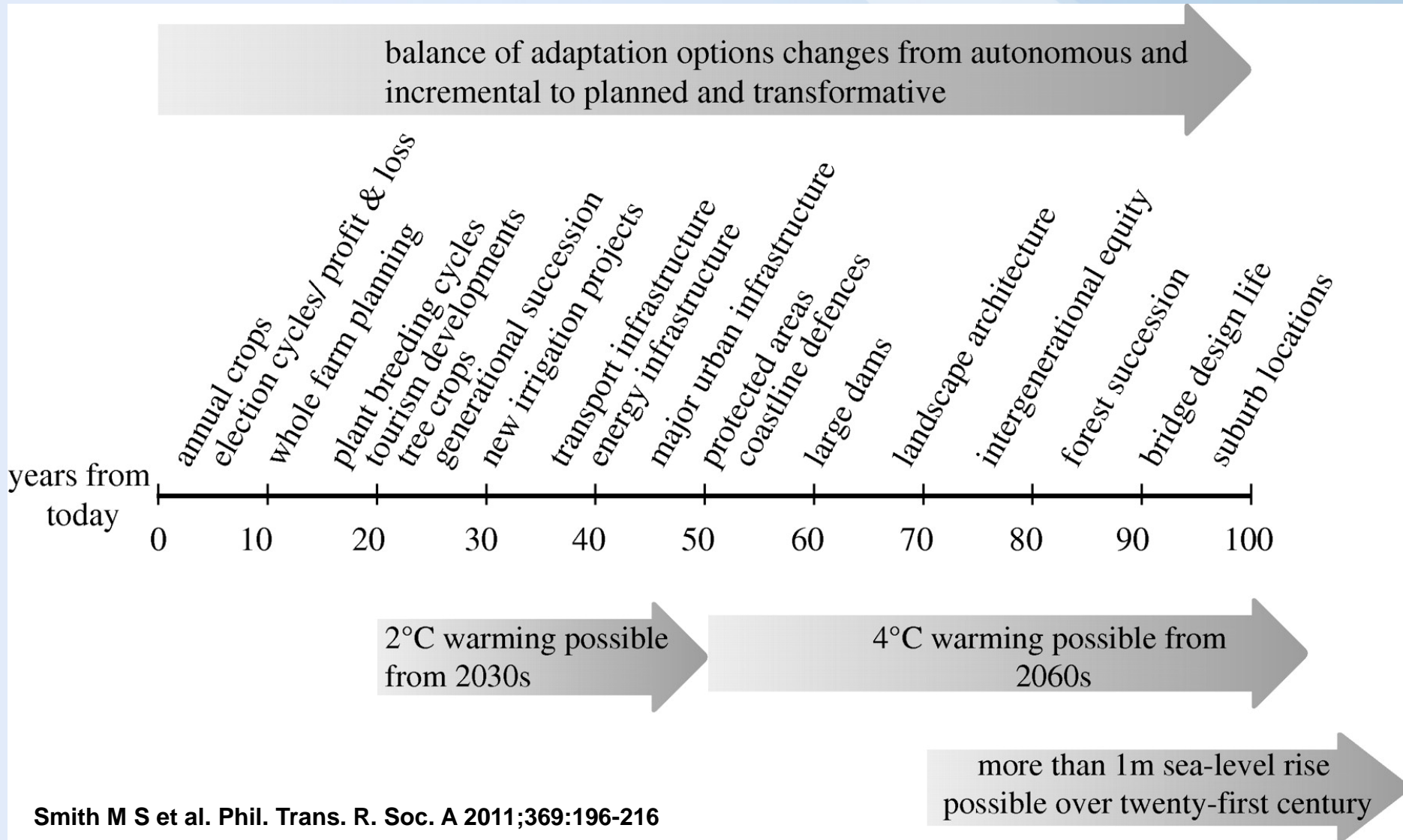
Do we understand trade-offs?

- Between adaptation and mitigation
 - The promise of ‘climate smart agriculture’
- Between short and long-term, local- and national-level adaptation
 - Rwanda watershed / hydro
- Between countries, regions
 - Upstream vs. downstream

Are we equipped for transformational adaptation?



Do we have a choice?



What does this all mean for M&E?

- Adaptation defined by intent / process?
Outcome? Some combination of both?
- Transformational adaptation



Thank you

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Doha developments

- Loss and damage – addressing the limits to adaptation
- Adaptation committee