*** Adaptation Training Initiative ***

weADAPT

Robust Decision Making

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SEI STOCKHOLM ENVIRONMENT INSTITUTE

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C3D+ CLIMATE CHANGE CAPACITY DEVELOPMENT

Where are we?

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"Do you think they mean us?"

More key points

- Plans for most urgent and immediate needs (e.g. NAPAs) provide a basis for urgent action, as well as building capacity and evidence base (pilot actions) for long-term adaptation plans.

- Use best available information and urgent evidence for action, we should not wait until we know everything!

- However, there is no one method that is suitable for choosing between options!

Projections

Trend	Better	Worse	Unclear
Better	Opportunity!	Don't set up based on the trend; Beware Maladaptation!	Don't do anything that sets a community up badly if conditions worsen
Worse	Adapt to current trend but be aware of changing conditions/ opportunities	Act now! Adaptation is clearly needed	Adapt to the current trend but monitor any changes and latest information
Unclear	Monitor and wait to see if opportunities arise.	Start building resilience in the system to cope with worsening conditions	Activities that have benefit now but don't fail if things get worse.

Possible ways of thinking about trends, projections and adaptation: identifying urgent need for action, original version from Tom Downing

Why robust decision making?

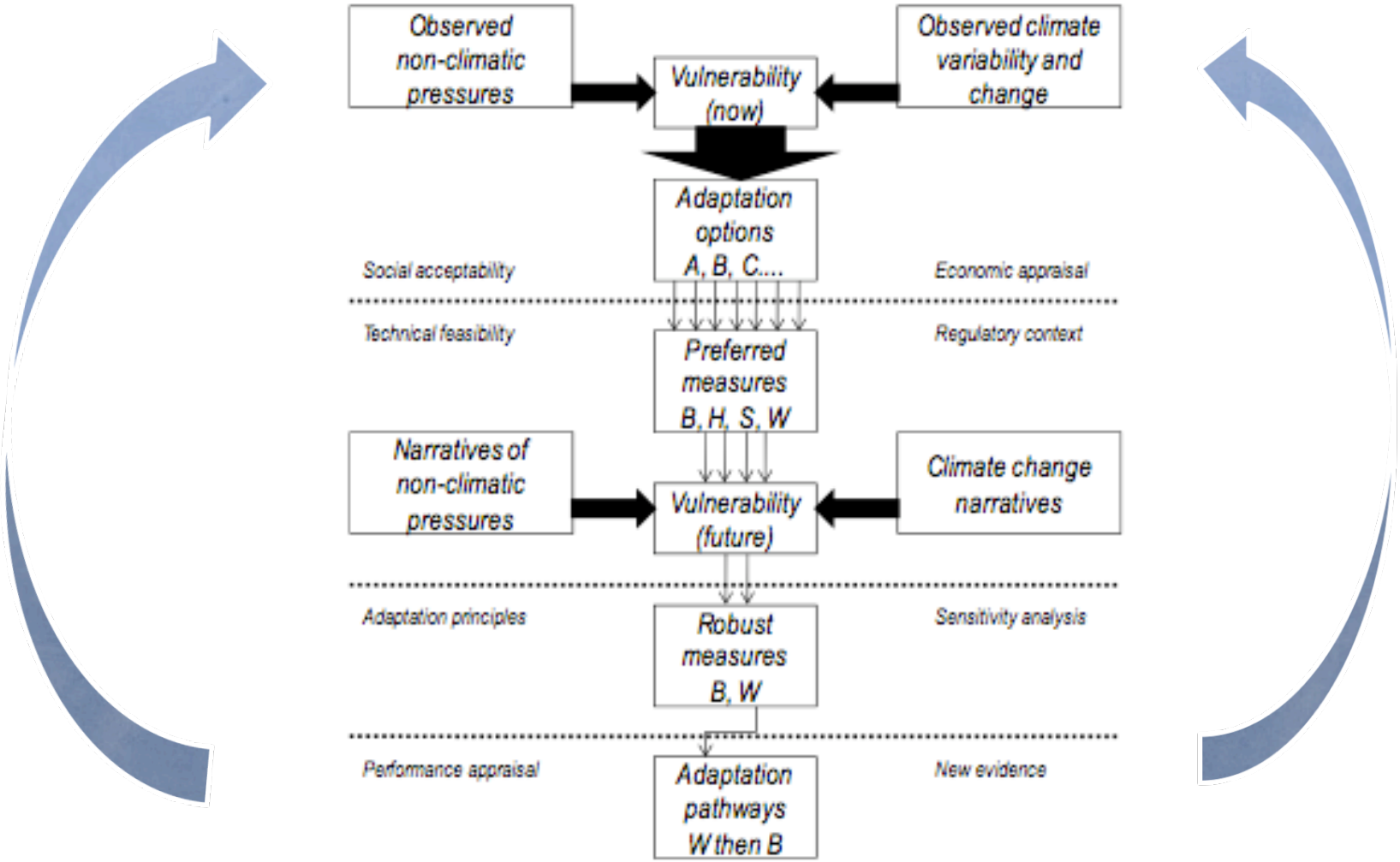
Climate adaptation requires decision making that

- ✓ utilises the best available information
- ✓ offers a range of methodological approaches
- ✓ recognises high uncertainty as well as differing contexts in which decisions need to be made
- ✓ supports identification of robust adaptation options

Key principles of RDM

- Consider large ensembles (thousands, hundreds to millions) of scenarios
- Seek robust ('good enough'), not optimal, strategies
- Achieve robustness using principles of adaptive management (i.e. iterative and flexible)

A good framework?



Based on principles of RDM

- Many formal metrics (e.g., multi-criteria assessment) lead to choices that depend on rather small differences in criteria and aggregate scores.

- In contrast, stakeholders may favour one or more options for many reasons.

- Deliberative techniques of collective choice, ranking options and voting on preferred options may be desirable, either in lieu of or as a complement to more formal screening methods.

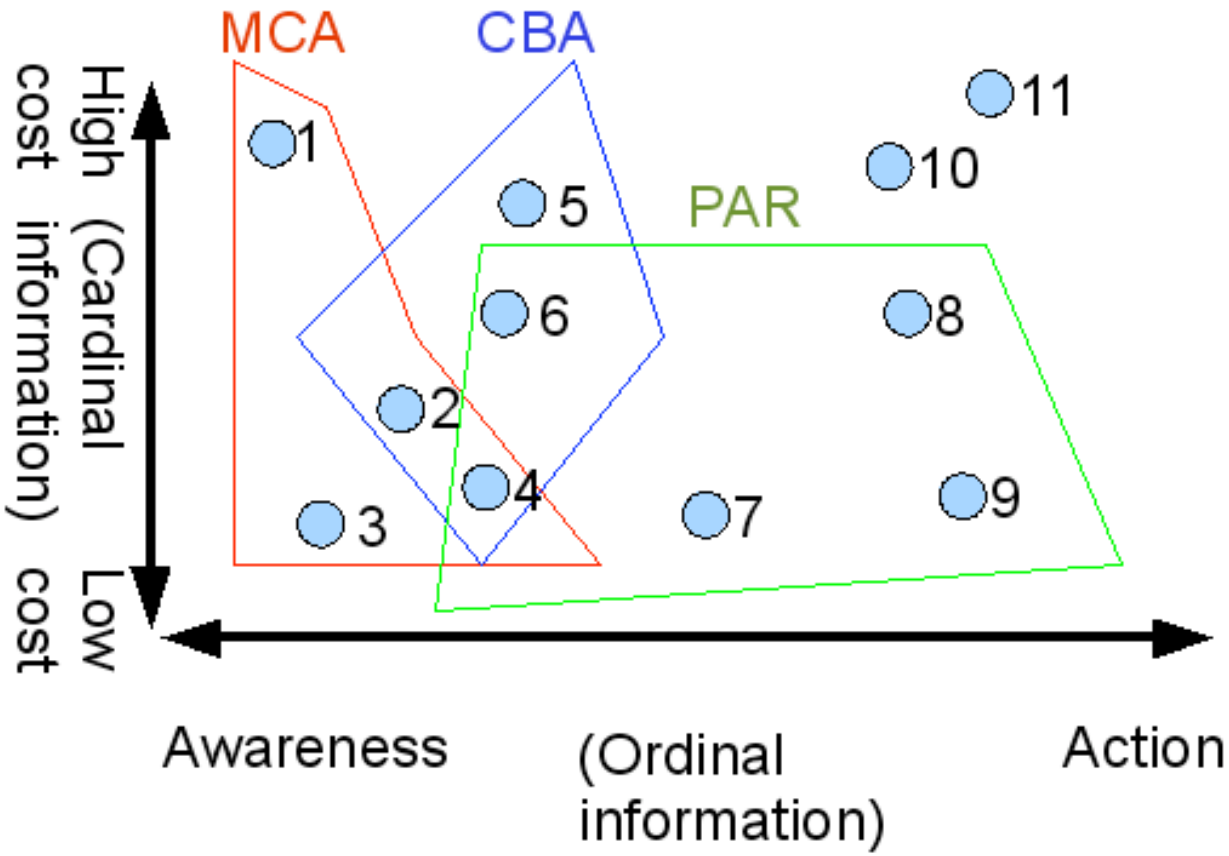
Principles of RDM

- Involves consideration of a number of futures and scenarios
- No one method will be appropriate to all cases

Robust Decision Making will allow you to compare results across a range of methods.

- Voting
- Expert judgement (pros and cons)
- Applying multiple criteria

Comparing adaptation options



Voting

(1) Options are ranked by each person, from 1 (high) to n (low, the number of options)
(2) Options that are not ranked highly are dropped. For instance, the number of 'votes' for rank 1 or 2 could be added up across all of the voters and then options with few 1s or 2s are dropped.
(3) The ranking is re-calibrated, keeping the initial preference but adjusting the rank for the missing options. So if voter A had ranked option X as a 1 but it was dropped, then voter A's option that was previously ranked 2 becomes 1, and so forth.
(4) Steps 2 and 3 are repeated until the option(s) with the highest commitment are preserved.

Iterative ranking

- This technique might lead to a single 'best' choice, or a smaller number of options that can be evaluated in more depth. The 'voting' ensures that only those options that at least some stakeholders value are chosen. That is, at least someone is likely to champion the implementation of the option.

- Note this might not happen in this way in reality. One group may make the choices based on a variable amount of input from other groups and therefore the options may not have as much ‘buy-in’ as an approach that tries to consider a diverse range of opinions.

What we have covered so far

- Current climate analysis
- Future climate analysis
- Social and dynamic vulnerability analysis
  - constraints, capabilities, socio-economic, political, legal, cultural
- Stakeholder analysis
- Institutional analysis: capacity, strengths, weaknesses, information flow
- Communicating risk and raising awareness
- Adaptive capacity
- Methods for adaptation screening and robust decision making
  - What are the 'low regret' options? (those options that will have some benefit, even without climate change)
- What is the 'envelope of adaptation options' - the most robust range of options? Why?

Be creative – use pictures as well as your RDM diagram ☺

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