Adaptation options for coastal environments: social, community and educational

In this section, we explore **social, community and educational options for adaptation**. Community participation in adaptation projects, and acceptance and support for these projects, are vital components of success. Without community support, an adaptation action is less likely to succeed, whether in engineering, planning or ecosystem management.

Here, we look at options that can build community engagement. Strong and successful engagement throughout all stages of an adaptation project—development, implementation and evaluation— can make the difference between success and failure. Engagement can build success by ensuring that communities are:

- educated – they are fully aware of the risks being addressed, the planned action, and the expected outcomes
- supportive – having fully understood the adaptation option under consideration, the pros and the cons, they are supportive of it
- contributing – where there are opportunities, communities can make a positive contribution, for example, by sharing Indigenous knowledge, or by engaging in citizen science projects to collect data for monitoring and evaluation purposes.

Three other documents in this series provide information on adaptation options in:
- *Adaptation options: Planning*
- *Adaptation options: Engineering*
- *Adaptation options: Ecosystem management*

The purpose of all four documents is to provide users with quick and high-level information on available adaptation options. The information should not be considered to be exhaustive.

The principle information in this document is held in Table 1 below. This is laid out in a slightly different format from the tables in the three other adaptation options documents listed above. We do

not include a climate stressor because social, community and education measures essentially build the capacity to effectively implement adaptation options in general, and thus apply to most climate stressors. The effort required to implement options will depend on the particular stressors and impacts being addressed and the scale and geographical extent of these.

Table 1 has three columns:
- Column 1: Examples of social, community and educational options
- Column 2: Examples of benefits from each option (including direct and indirect benefits)
- Column 3: Examples of risks associated with each option (including any potential for maladaptation).

The infographics *Why should we adapt to sea-level rise?* and *How can we adapt to sea-level rise?* also contain useful information. C-CADS has guidance on developing a suite of adaptation options and how to sequence their implementation (*C-CADS Step 3 Identify options*). Once options have been identified, they should be assessed and those most appropriate for the chosen level of acceptable risk identified (*C-CADS Step 4 Assess options*). Once options are prioritised, more detailed consideration, planning and design of each option may be required. At each stage, community engagement is essential.

Additional information on community engagement and adaptation is provided in the *Information Manual 9: Community Engagement*.

Table 1: Examples of social, community and educational options in adaptation including the benefits and risks associated with each option.

Adaptation option:	Benefits:	Risks:
Engage communities of place and interest on climate change risk, vulnerabilities and adaptation pathways. Work through existing community networks to discuss the need and process for adaptation planning, to get interest and involvement from beyond those directly affected.	People who are meaningfully included in the development and selection of adaptation options may be more likely to support the decision outcomes and also help facilitate implementation.	Poorly designed and/or implemented engagement approaches may alienate communities. Lack of good examples and case studies to inspire and inform on this.
Incorporate traditional knowledge into vulnerability assessments and adaptation planning.	Including a range of knowledge sources may improve decision outcomes and also lead to enhanced engagement of those groups whose knowledge is included.	If done poorly, Indigenous protocols may not be recognised and respected. Insufficient expertise and resources to adequately engage with bearers of traditional knowledge.

Adaptation option:	Benefits:	Risks:
Incorporate local knowledge into vulnerability assessments and adaptation planning Community protocols should be recognised, and negotiated with community as part of discussions early in the planning process. Work through existing community networks to identify key informants about local knowledge and sources of unique local data Co-partner local history or 'place' projects with community organisations such as historical societies, libraries or art galleries.	Including a range of knowledge sources may improve decision outcomes and also lead to enhanced engagement of those groups whose knowledge is included.	Community may be unwilling to participate if sufficient time and resource isn't allocated to relationship and trust building.
Build the human, financial, built environmental and social capital within communities. Adaptation planning workshops could incorporate skill-building techniques for community groups e.g. GIS skills as part of gathering local knowledge about ecosystems; oral history skills for history society; financing /grant writing workshops for community groups.	The stronger the various capitals within communities, the more likely they are to effectively adapt.	Resources may not be prioritised for adequate actions. Lack of capacity to build or measure progress on change in capitals.
Work through existing community networks to identify and involve climate change adaptation champions within community groups. Ensure that champions are recognised as champions by the community and not only by decision makers.	Numerous functional networks exist within communities. Engaging climate adaptation champions within existing groups is more likely to enable a credible and trusted advocate for adaptation who can translate benefits that are meaningful to their peers.	Lack of trust or credibility of the champion within the community group. Key opinion leaders drawn from existing groups may also champion anti-adaptation interests.
Undertake actions to build the capacity of community groups, to increase their engagement in climate change adaptation related activities.	Extending outreach beyond individuals. Cost effective actions. Ownership of issues by stakeholders.	Potential for criticism that organisations are not taking the issue seriously and are passing the responsibility for action to others.
Engage young people in climate adaptation through education and initiatives. For example: Work with surf life saving clubs to ensure climate change is considered in their training of nippers and covered in newsletters. Work with local schools to include climate change adaptation in their school activities.	Today's youth will become those most affected by climate change adaptation in years to come. Building their knowledge early will place them in a better position to adapt. Furthermore, parents are also likely to be exposed to their children's newly acquired climate change adaptation knowledge.	Various groups and schools will have their own priorities (e.g. water safety for life saving clubs and curriculum requirements for schools), hence engagement approaches and educational initiatives must be mindful of those priorities and value add to them.
Enable learning between communities and professionals that facilitates adaptation. • Establish and fund an 'Adaptors Learning Circle' – make it easy and rewarding for them to be involved so it endures.	Knowledge sharing and learning will increase the understanding of what is effective.	Failure to capture learning can mean mistakes are repeated and opportunities missed.

Adaptation option:	Benefits:	Risks:
Involve community groups and schools in monitoring trigger level indicators to determine when adaptation actions should be implemented – use Queensland's Reef Guardian schools as inspiration	Knowing when action should be taken, and assessing whether objectives have been achieved Building capacity Reducing costs	Data are poor quality and can't be used so invest in training to ensure data are collected and reported in useful ways. Schools are already overloaded so need to ensure that adaptation projects fit within their curriculum
Work with local media through photo and story competitions to encourage publication of positive stories of responses to climate variability and change. Avoid focussing on doom and gloom scenarios. Do some media training with climate champions.	Build a more engaging positive message about responding to climate change. Encourage more involvement and discourage negativity	Potential for criticism that issues are being avoided.
Encourage communities to change behaviours that have negative outcomes elsewhere. For example discourage consumption of fish that might be caught in degraded coral reefs in other countries.	Stakeholders see their influence on climate change adaptation as being beyond local, State and national boundaries	Potential for criticism for reducing competition and impacting markets.

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