

Checklists to evaluate your use of C-CADS (and other iterative adaptation processes)

Summary

CoastAdapt includes the decision support framework C-CADS (Coastal Climate Adaptation Decision Support), which guides users through a series of iterative steps and provides access to relevant information and resources.

These checklists are intended to support evaluation by users of whether they have taken appropriate steps within C-CADS, and whether they have accessed some of the nationally available data and guidance to support their adaptation journey.

Introduction

The following checklists are based on the six steps of <u>C-CADS</u>, but are not intended to replace C-CADS, or more detailed assessments of risks or options.

These checklists can also assist decision makers who may have used other frameworks to consider whether they have taken a comprehensive approach and made use of the most appropriate resources in their adaptation activities.

Step 1 Checklist: Identify challenges

Have you considered what you are legally required to do regarding climate change in your jurisdiction? See <u>Information Manual 6: Legal risk</u>.

Have you accessed the <u>Climate Change in Australia</u> website to identify projected changes in climate relevant to your local area?

Have you accessed the CoastAdapt datasets on potential local <u>sea-level rise and inundation mapping</u>, and on the susceptibility of your <u>coastal compartments</u> to change?

Are there datasets or maps provided by the State Government, or in the Coastal Risk Australia tool (www.coastalrisk.com.au), which show coastal hazards in your region? For more information on available datasets see CoastAdapt's Information Manual 3: Available datasets.

Has your local area been affected by catchment flooding, sea inundation, erosion, heatwaves or bushfires in the past? See Water observations from space in *Shoreline Explorer*.

Have you accessed any additional local data and knowledge on climate change that may be available in your local area (local government, universities, NRM groups)? See <u>Current climate data sources</u>, <u>Data for risk assessment</u>.

Have you considered accessing local knowledge on climate changes from long-term residents and Traditional Owners?

Does your organisation have established engagement mechanisms for the place you will be focusing on? See *Information Manual 9: Community engagement*.

Step 2 Checklist: Determine risks and vulnerabilities

Have you considered the guidance on risk assessment in CoastAdapt, and are you clear on whether a first, second or third pass assessment is required? See *Guidance on risk assessment*.

Have you undertaken a data gaps and needs audit to identify whether you have the data and other resources needed to undertake your risk assessment? See *Information Manual 3: Available datasets*.

Have you considered national data providers which may have information and data that can support your needs (Geoscience Australia, OzCoasts, TERN, IMOS)? See *National mapping*.

Have you checked for past studies on local hazards and determined whether data previously collected are accessible?

Are you planning a decision on an asset or in a community within 100 metres of an erodible coastline or in a low-lying area on the open coast or bordering an estuary? If so, a second- or third-pass risk assessment will be required. See *Guidance on risk assessment*.

Have you obtained advice from coastal or engineering experts on the significance of local risk and the adequacy of data for a second or third pass risk assessment? See <u>Information Manual 7: Engineering</u>, <u>Information Manual 8: Coastal sediments and beaches</u>. If needed, are there resources available to pay for professional advice?

Where further data collection is needed, have you considered data management and ease-of-use issues to maximise data usefulness, and accessed the CoastAdapt guidance on commissioning consultants? See *Working with consultants*.

Are other organisations also undertaking work, or looking to, which might result in opportunities for partnering and resource sharing? See *Partnerships for adaptation*.

Have you established whether your existing planning scheme allows new development in locations that you have identified as potential at risk under future climate change and sea-level rise? See *Information Manual 5: Planning instruments, Jurisdictional differences State specific information.*

Step 3 Checklist: Identify options

Have you accessed information in CoastAdapt to understand the benefits as well as risks associated with planning, engineering, environmental and social options for adaptation? See <u>Infographic:</u>

Adaptation tools, Adaptation options.

Have you considered soft options for adaptation where appropriate (social and environmental)? Can resource savings be realised by employing soft options? (see <u>Social, community and educational options</u>)

Have you explored any opportunities for partnerships or potential co-benefits that may arise if a certain option is implemented? See <u>Partnerships for adaptation</u>.

Have you checked whether the option that you are considering for your adaptation is compatible with your State policies? See *Jurisdictional differences*, *State specific information*.

Have you engaged effectively with stakeholders to ensure they have had input into identification of options? If not, what resources are required to enable stakeholder engagement? See <u>Engaging the</u> community, Information Manual 9: Community engagement.

Step 4 Checklist: Evaluate options and make a plan

Have you accessed the content in CoastAdapt on valuation of adaptation and avoided impacts, financing adaptation and building a business case? See <u>Valuing adaptation</u>, <u>Financial resources</u>, <u>Developing a business case for adaptation link</u>.

Have you considered the timing associated with each action and identified thresholds and trigger points at which actions should be implemented? See <u>Pathways approach</u>, <u>Applying pathways</u> <u>approach</u>.

Have you considered the full expenditure profile of your decision over time, including initial capital investment, maintenance, and repair? Are potential damage costs from climate events factored in? See *Valuation link*, *Information Manual 4: Costs and benefits*.

Have you considered the effective lifetime of your chosen adaptation option and tested whether the option is robust to projected climate change (as described on the <u>Climate Change in Australia</u> website) and attendant risks throughout its effective lifetime? See <u>Pathways approach</u>, <u>Applying pathways approach</u>.

Will implementation of your selected adaptation option allow you to keep your future options open (i.e. is it a low-regrets option - not committing to something that cannot be changed or built on in future if required)? See <u>Pathways approach</u>, <u>Applying pathways approach</u>.

Have you considered what partnerships may be required to fully realise the benefits of planned adaptation decisions? Are resources available to build partnerships? See <u>Partnerships for adaptation</u>.

Have you identified clear measureable objectives relating to your actions, and suitable performance indicators for each action? Can adaptation performance measurement be linked to other monitoring or measurement activities to reduce costs? See *Monitoring and evaluation, Identifying indicators*.

Have you invested sufficient resources to ensure effective engagement with stakeholders, and put arrangements in place for continuous engagement throughout the planning cycle? See <u>Building</u> <u>community support</u>.

Step 5 Checklist: Take action

Have you identified barriers that may be preventing you from taking adaptation action? (See <u>Barriers</u> <u>to adaptation</u>)

Have you considered the costs associated with each action and identified funding and financing mechanisms for actions? See *Valuation, Information Manual 4: Costs and benefits, Financial resources*.

Are the timeframes and triggers for each action clear and agreed in your organisation? See <u>Pathways</u> approach, Applying pathways approach.

Step 6 Checklist: Monitor and evaluate

Have any new data on climate change become available, or any local extreme weather or hazard events occurred, that might require reconsideration of local risk assessment findings? See <u>Guidance</u> on risk assessment.

What other groups and organisations collect data and information in your area that might be useful for monitoring – are there opportunities to share resources? See *Partnerships for adaptation*.

Would any planned developments or expected changes in local social or economic factors increase or reduce exposure to climate change risks, and so require a re-evaluation of adaptation options? See *Pathways approach*, *Applying pathways approach*, *Guidance on risk assessment*.

For decisions in areas already exposed to risk, is there a monitoring plan in place to ensure assets are not unduly damaged or safety compromised? See <u>Monitoring and evaluation</u>, <u>Monitoring in the City of Mandurah</u>, <u>Monitoring in the City of Shoalhaven</u>.

Have you considered how you will report on outcomes associated with your adaptation plan to your internal and external stakeholders? See <u>Information Manual 9: Community engagement</u>.

Have you taken steps to ensure that stakeholders are aware that adaptation planning is an adaptive cycle and you will be continuing the adaptation journey to ensure that your plans and actions remain appropriate? See *Information Manual 9: Community engagement*.

This Information Sheet was prepared by staff at NCCARF. Please cite as:

NCCARF, 2016: Checklists to evaluate your use of C-CADS (and other iterative adaptation processes). CoastAdapt, National Climate Change Adaptation Research Facility, Gold Coast.





Department of the Environment and Energy