David Rissik, Jean Palutikof, Steve Webb, Fahim Tonmoy, Anne Leitch, Sarah Boulter, Ana Perez Vidaurre

NCCARF, Griffith University

Presentation

Introducing CoastAdapt: A national tool to support Australian coastal decision makers to manage risks associated with climate change

Abstract

CoastAdapt, is a tool/framework to support coastal decision makers to manage the risks associated with a changing climate. The contents of the product are based on user needs identified from a broad consultation process around Australia.

The demand driven tool has been developed following consultation with over 700 stakeholders, and with regular, and has included regular engagement with potential users from all levels of government, business and industry throughout. CoastAdapt will provide extensive technical information and guidance to support decision makers on the coast. We have focussed on delivering information in ways that is accessible to high-level decision makers (Councils and Boards), time poor managers, and technical experts.

CoastAdapt is delivered through the web, and includes information, data, guidance, case studies and tools which will support users to:

- Learn about climate change
- Assess risks and impacts
- Understand adaptation
- Undertake adaptation
- Connect with the adaptation community

Some key components of CoastAdapt are:

- **Sea-level rise and you**, which allows users to obtain sea-level rise data and associated inundation mapping for coastal local government areas around Australia
- Shoreline Explorer, which provides information on secondary sediment compartments around Australia, coastal geomorphological data (SmartLine), and Water Observations from Space
- C-CADS (Coastal Climate Adaptation Decision Support), a risk based process to help users develop a climate change adaptation plan
- **CoastExchange**, a Community of Practice through which participants can share experiences and information, participate in discussions and guizzes
- Case studies, a compendium of case studies from Australia and abroad is delivered to illustrate concepts and provide insights about what is being done by practitioners.

A key focus of ours is helping decision makers to overcome barriers, and we have put extensive effort into developing guidance material on communication, getting organisational buy-in, working with consultants, developing business plans for adaptation and novel ways of financing adaptation.

Available from August as a beta version, we continue to seek feedback on CoastAdapt and will be delivering a final version of CoastAdapt on February 28 2017.







Department of the Environment and Energy

CoastAdapt: use it or lose it

Dave Rissik

Deputy Director/General Manager

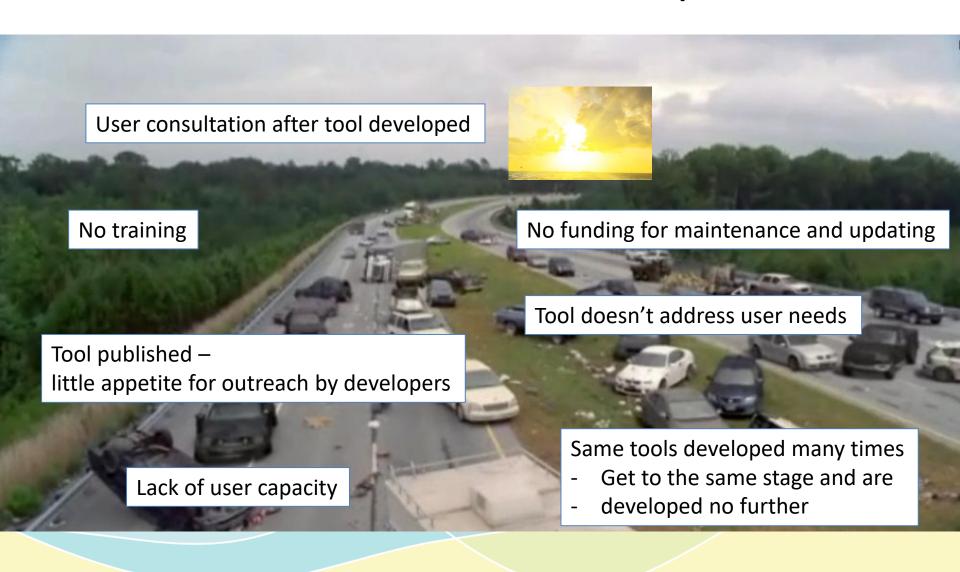
NCCARE

WWW.COASTADAPT.COM.AU

Challenge for NCCARF in second phase (2014-2017)

 To build a Tool/Framework that will provide coastal managers, especially in local councils, with support and knowledge to take action to adapt to climate change and sea-level rise

"The Road to Effective Adaptation"



Demand driven development

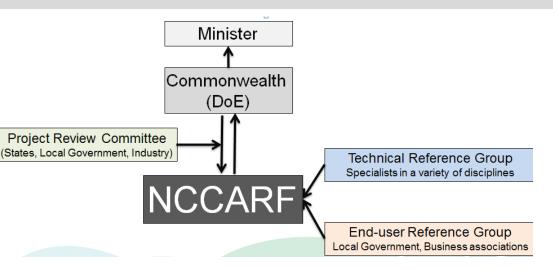
Understanding user needs through consultation

- 700 stakeholders around Australia (all states and territories)
 - 400 face to face
 - 300 online survey

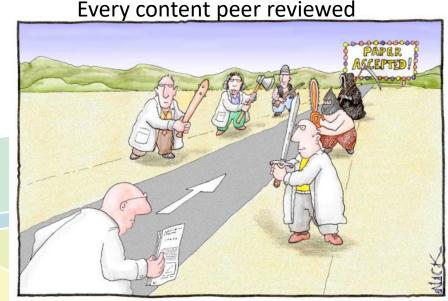


- Broad ranging
 - Government (Local, State, Commonwealth)
 - Business and Industry
 - NRM
 - Community groups
 - Academics

Authoritative



64 authors
41 technical reviewers
End-user review of every
document



Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'





Assess risks and impacts



Understand adaptation



Undertake adaptation



Connect with the adaptation community



Sea-level rise and you

Select your local area to view future sea-level rise information



Shoreline Explorer

Use an interactive map to discover more about your current coastline



Coastal Climate Adaptation Decision Support



CoastExchange

Get your questions answered in CoastAdapt's online discussion forum



Infographics

A picture says a thousand words



Case studies

Learning by sharing: case studies of adaptation in Australia and beyond



Information manuals

Ten in-depth studies of key adaptation topics of concern to coastal managers



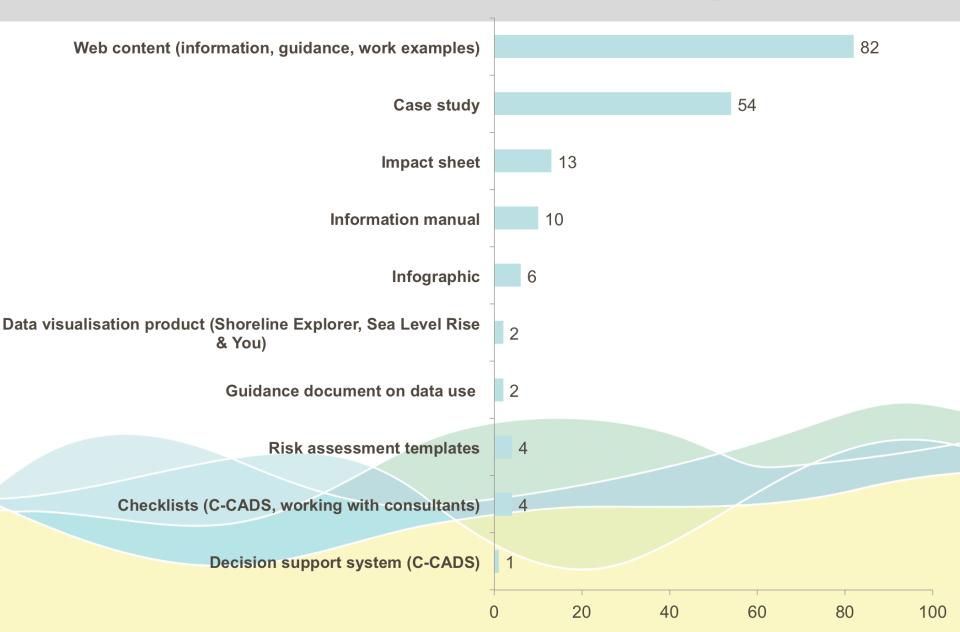
Impact sheets

Thirteen sector-wise studies of climate change impacts in coastal Australia



Browse the resource centre

What's in CoastAdapt?



What's in CoastAdapt?











Two data and visualization products









Coast

map to discover urrent coastline Coastal Cumate Adaptation Decision Support

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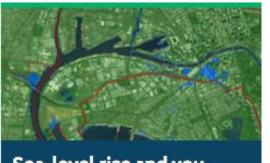


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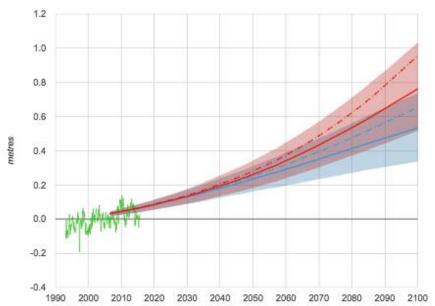


Browse the resource centre



Sea-level rise and you

Select your local area to view future sea-level rise information



Sea-level rise

(relative to an average calculated between 1986 and 2005)

Date (unit)	RCP2.6	RCP4.5	RCP6.0	RCP8.5
2030 (m)	0.13 (0.09-0.17)	0.13 (0.09-0.18)	0.13 (0.08-0.17)	0.14 (0.09-0.18)
2050 (m)	0.22 (0.15-0.30)	0.24 (0.16-0.32)	0.23 (0.15-0.30)	0.27 (0.19-0.35)
2070 (m)	0.31 (0.20-0.43)	0.35 (0.24-0.48)	0.35 (0.23-0.46)	0.44 (0.31-0.58)
2090 (m)	0.40 (0.24-0.56)	0.48 (0.31-0.66)	0.49 (0.32-0.66)	0.65 (0.45-0.88)
Rate of change at 2100 (mm/yr)	4.3 (1.6-6.8)	6.0 (3.2-8.8)	7.5 (4.6-10.6)	11.5 (7.4-16.3)

Allowances

(relative to an average calculated between 1986 and 2005)

Date (unit)	RCP2.6	RCP4.5	RCP6.0	RCP8.5
2030 (m)	0.14	0.14	0.13	0.14
2050 (m)	0.24	0.26	0.24	0.29
2070 (m)	0.35	0.40	0.39	0.49
2090 (m)	0.48	0.57	0.58	0.79
	2030 (m) 2050 (m) 2070 (m)	Date (unit) RCP2.6 2030 (m) 0.14 2050 (m) 0.24 2070 (m) 0.35 2090 (m) 0.48	2030 (m) 0.14 0.14 2050 (m) 0.24 0.26 2070 (m) 0.35 0.40	2030 (m) 0.14 0.14 0.13 2050 (m) 0.24 0.26 0.24 2070 (m) 0.35 0.40 0.39

RCP8.5 scenario RCP6.0 scenario RCP4.5 scenario RCP2.6 scenario RCP2.6 scenario Satellite data Solid lines show median sea-level rise relative to an average from 1986 to 2005 Dashed lines show allowances for each scenario Shaded areas show the likely range for each scenario (5 to 95% confidence limits) View guidance information

Inundation maps

2100 RCP4.5



PDF 9MB >

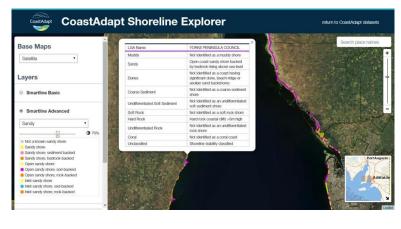


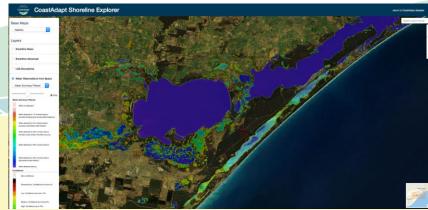
Shoreline Explorer

Use an interactive map to discover more about your current coastline



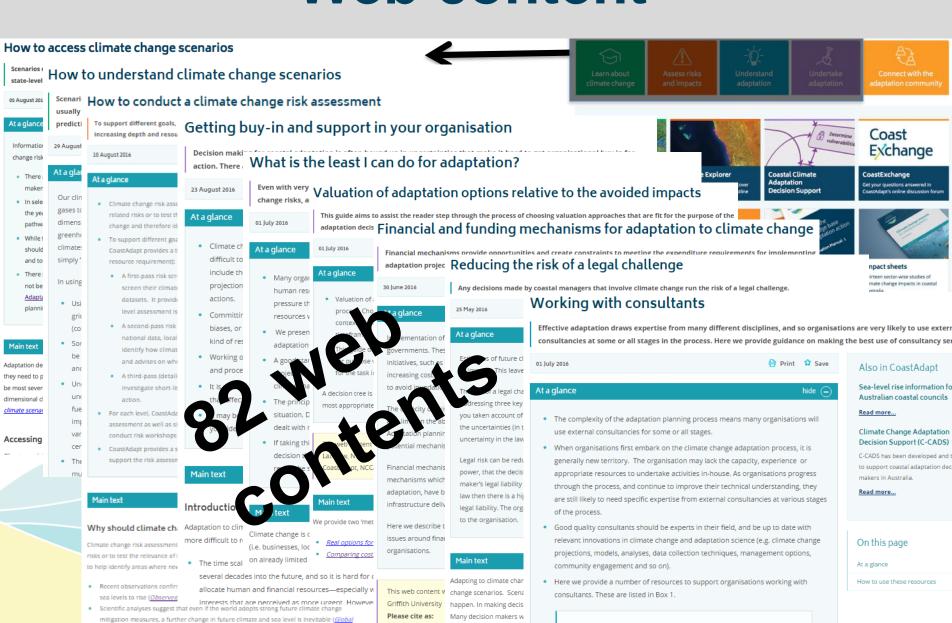
- Smartline a visualisation tool that identifies coastal areas susceptible to erosion
- Water observations from space: historical surface water observations allowing users to distinguish between permanent water bodies and areas prone to flooding







Web content



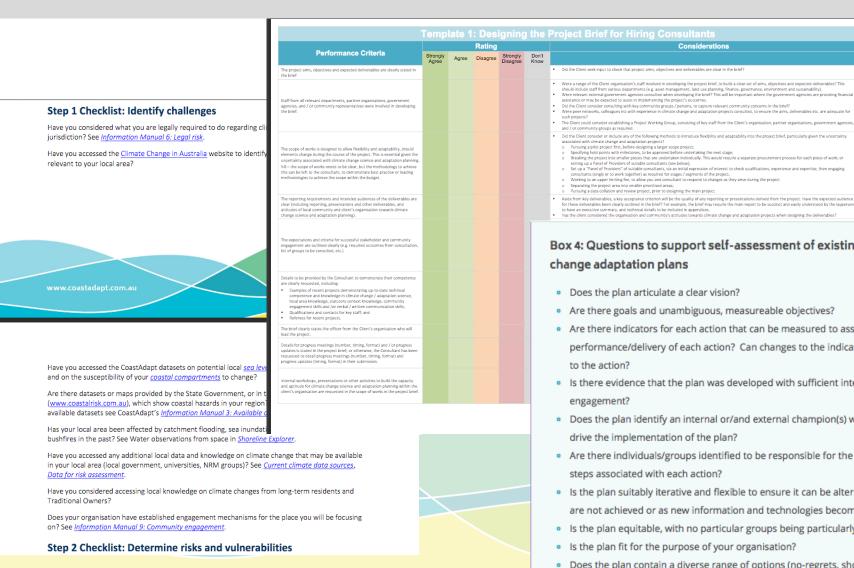
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principles of 'legal reason

Box 1: Resources in CoastAdapt to support organisations

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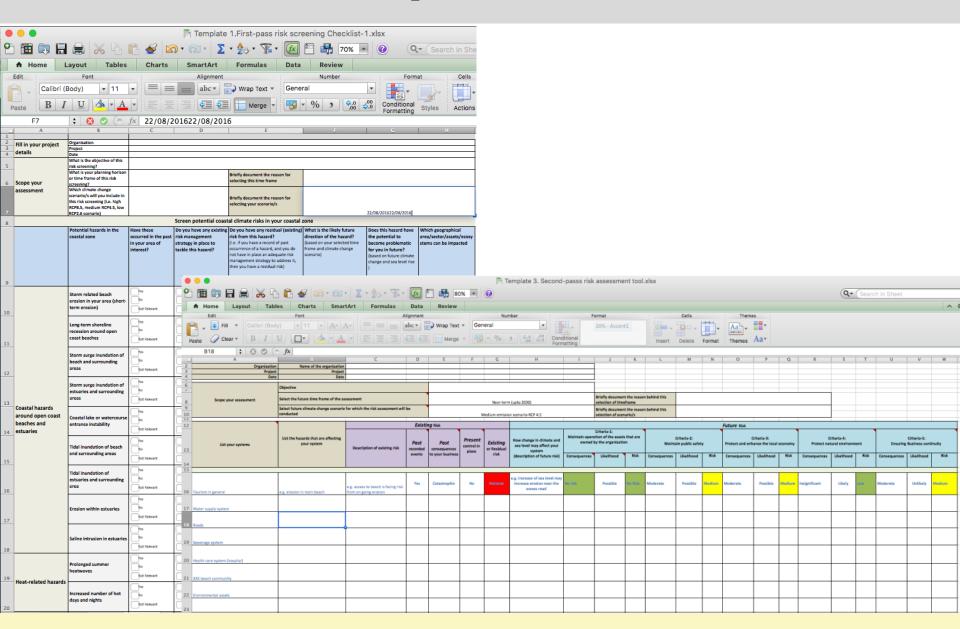
Checklists



Box 4: Questions to support self-assessment of existing climate change adaptation plans

- Does the plan articulate a clear vision?
- Are there goals and unambiguous, measureable objectives?
- Are there indicators for each action that can be measured to assess performance/delivery of each action? Can changes to the indicator be attributed
- Is there evidence that the plan was developed with sufficient internal or external
- Does the plan identify an internal or/and external champion(s) who will help to drive the implementation of the plan?
- Are there individuals/groups identified to be responsible for the delivery or next steps associated with each action?
- Is the plan suitably iterative and flexible to ensure it can be altered if outcomes are not achieved or as new information and technologies become available.
- Is the plan equitable, with no particular groups being particularly disadvantaged?
- Is the plan fit for the purpose of your organisation?
- · Does the plan contain a diverse range of options (no-regrets, short, medium and long term)?

Simple Tools



Information Manuals













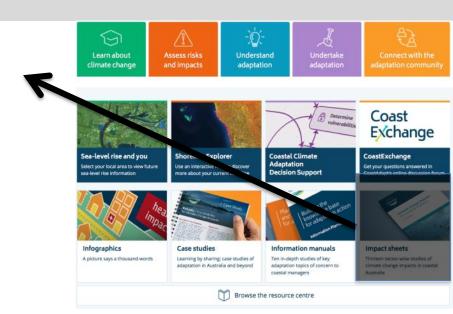




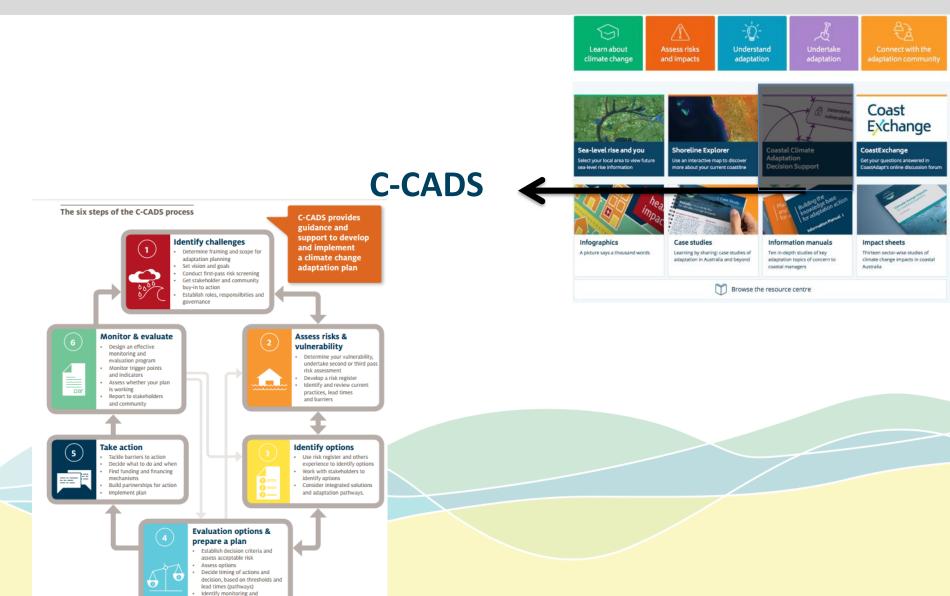
Impact Sheets

13 sectoral impact sheets





Decision support



evaluation indicators Prepare adaptation plan

Case Studies and Snapshots



Case Study

Case Study

Tweed River Entrance Sand Bypass Project





















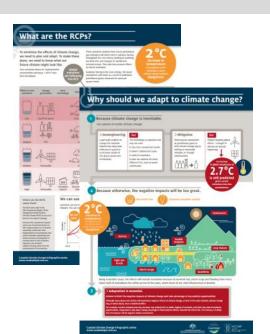


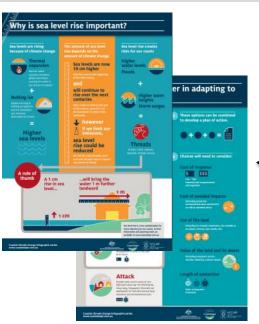




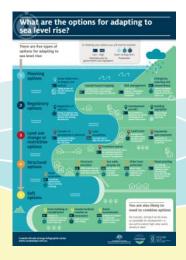


Infographics











CoastExchange

 Forum for adaptors to connect with their peers, share ideas

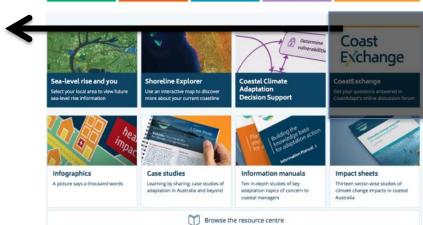








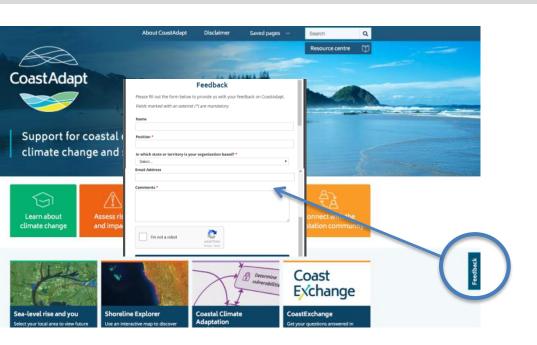




"Ask an expert"

www.connect.coastadapt.com.au/

Providing feedback



At the end of every page

Provide us with your feedback!

Please fill out our <u>feedback form</u> to send us your comments about CoastAdapt. This form can be accessed from the tab on the right-hand side of every CoastAdapt page.

We also have an online survey available which will allow you to provide much more detailed feedback. If you have used CoastAdapt for a while, please feel free to fill out the <u>online survey</u>.



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