

Climate Change Adaptation and Australian Local Government

Workshop on Climate Change and Urban Adaptation Science and Practice
9th December 2013



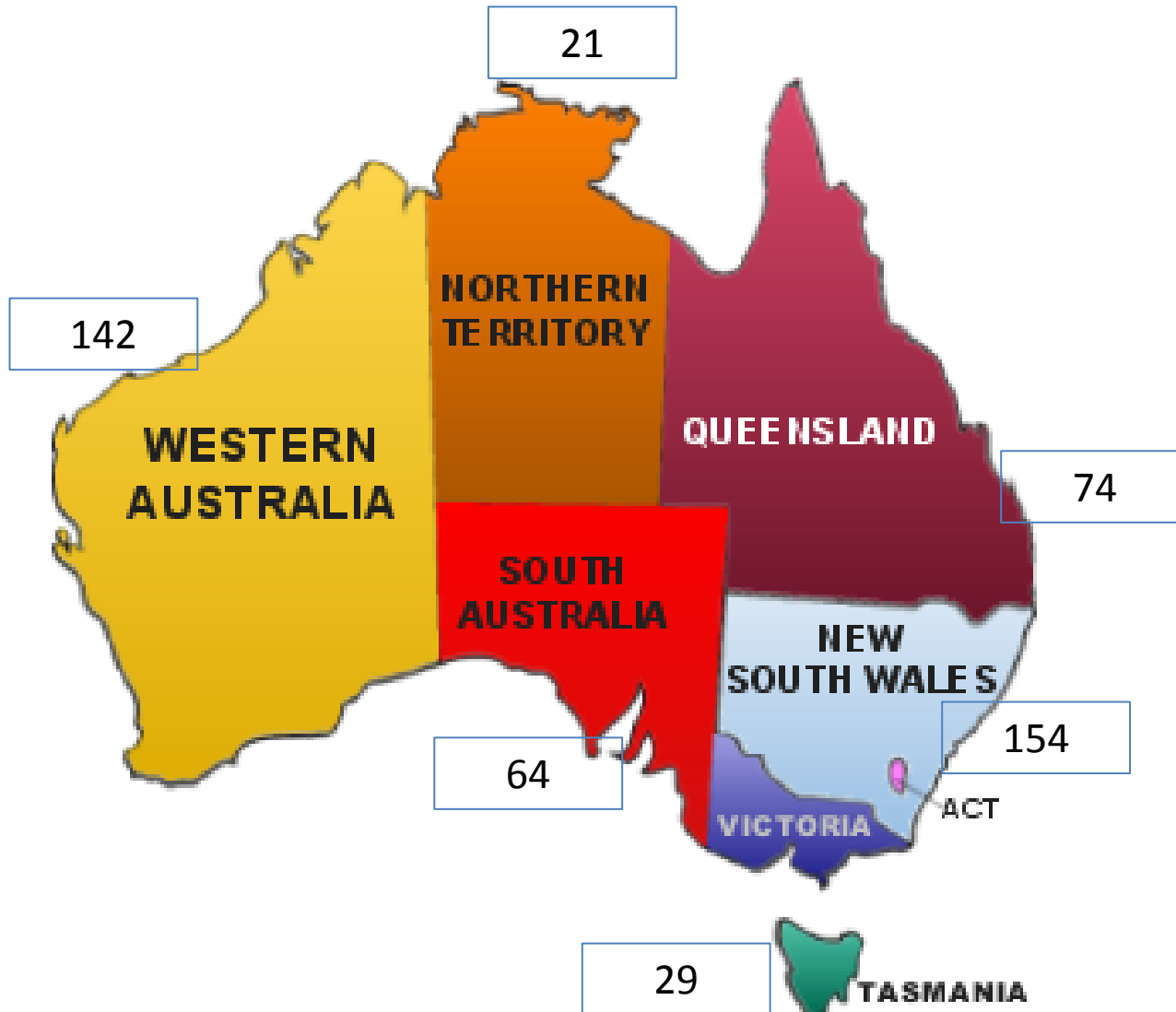
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Outline

- Australian local government
- Local issues
- Australian local government responses
- Conclusion / questions



Australian Context



Differing Nature of Direct Climate-Related Exposure and Risk

GEOGRAPHY

- Large rivers and flood plains (e.g. Brisbane)
- Coastal (inundation, storm surge, erosion) (e.g. Kingborough)
- Northern (tropical cyclones)
- Heavy vegetation (bushfires)
- Other hot spots (e.g. hail, heatwaves)

Differing Nature of Direct Climate-Related Exposure and Risk



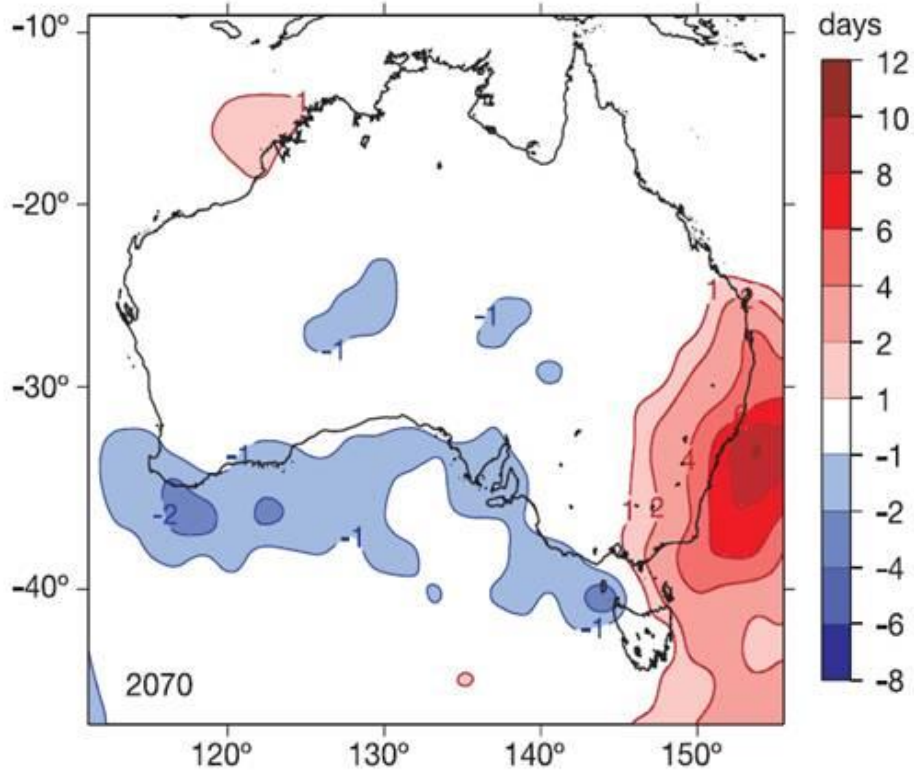




Australian Property & Coastal Risks

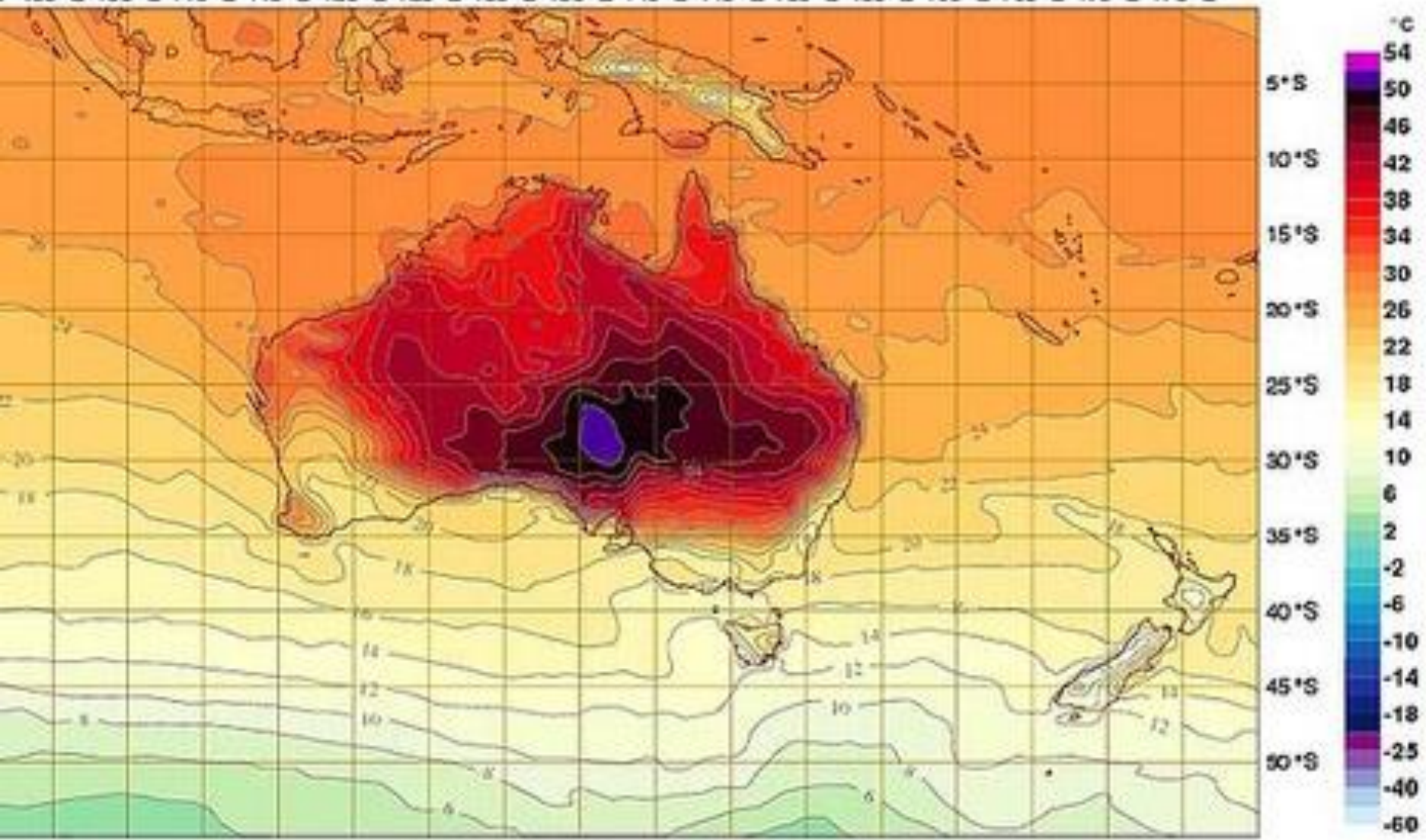
<p>Commercial</p> <p>No. of buildings exposed to 1.1m of sea-level rise + 1 in 100 storm surge and value*</p> <div style="display: flex; align-items: center; gap: 10px;"> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="display: flex; gap: 5px;"> </div> <div style="display: flex; gap: 5px;"> </div> </div> <div style="text-align: right;"> <p>8,600</p> <p>\$81bn.</p> </div> </div>	<p>Residential</p> <p>No. of buildings exposed to 1.1m of sea-level rise + 1 in 100 storm surge*</p> <div style="display: flex; align-items: center; gap: 10px;"> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="display: flex; gap: 5px;"> </div> <div style="display: flex; gap: 5px;"> </div> <div style="display: flex; gap: 5px;"> </div> <div style="display: flex; gap: 5px;"> </div> </div> <div style="text-align: right;"> <p>274,000</p> <p>\$72bn.</p> </div> </div>	<p>Local Govt. Area</p> <p>Summary of commercial properties exposed by selected local govt areas*</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;"></td> <td style="text-align: right; vertical-align: middle;"> </td> </tr> <tr> <td>Surf Coast [VIC]</td> <td style="text-align: right;">417</td> </tr> <tr> <td>Bunbury [WA]</td> <td style="text-align: right;">496</td> </tr> <tr> <td>Huon Valley [TAS]</td> <td style="text-align: right;">65</td> </tr> <tr> <td>Wollongong [NSW]</td> <td style="text-align: right;">203</td> </tr> <tr> <td>Gold Coast [QLD]</td> <td style="text-align: right;">243</td> </tr> <tr> <td>Port Adelaide Enfield [SA]</td> <td style="text-align: right;">506</td> </tr> </table>			Surf Coast [VIC]	417	Bunbury [WA]	496	Huon Valley [TAS]	65	Wollongong [NSW]	203	Gold Coast [QLD]	243	Port Adelaide Enfield [SA]	506
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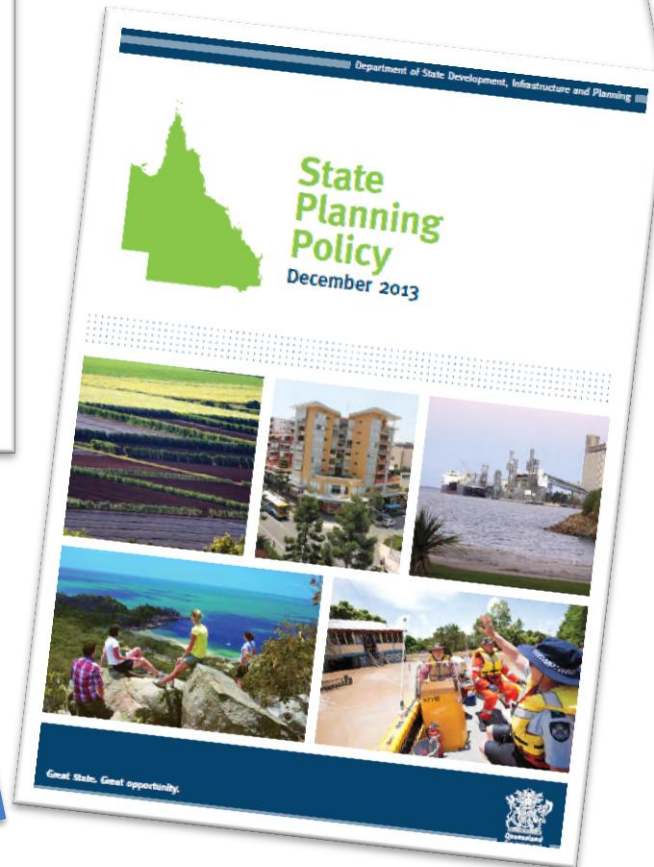
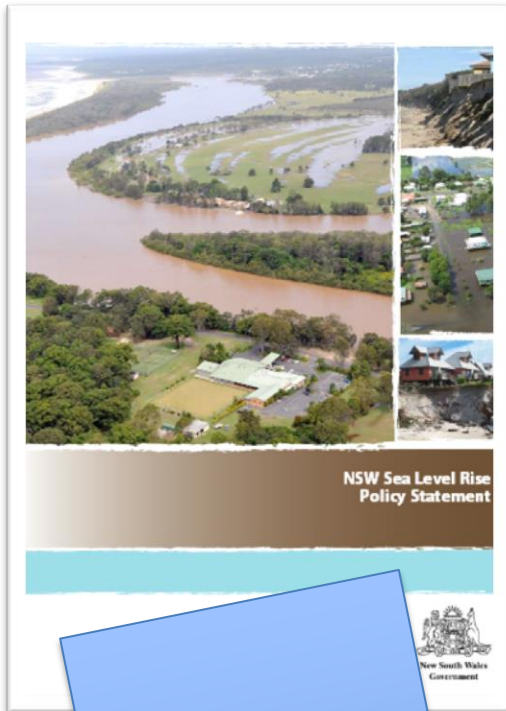
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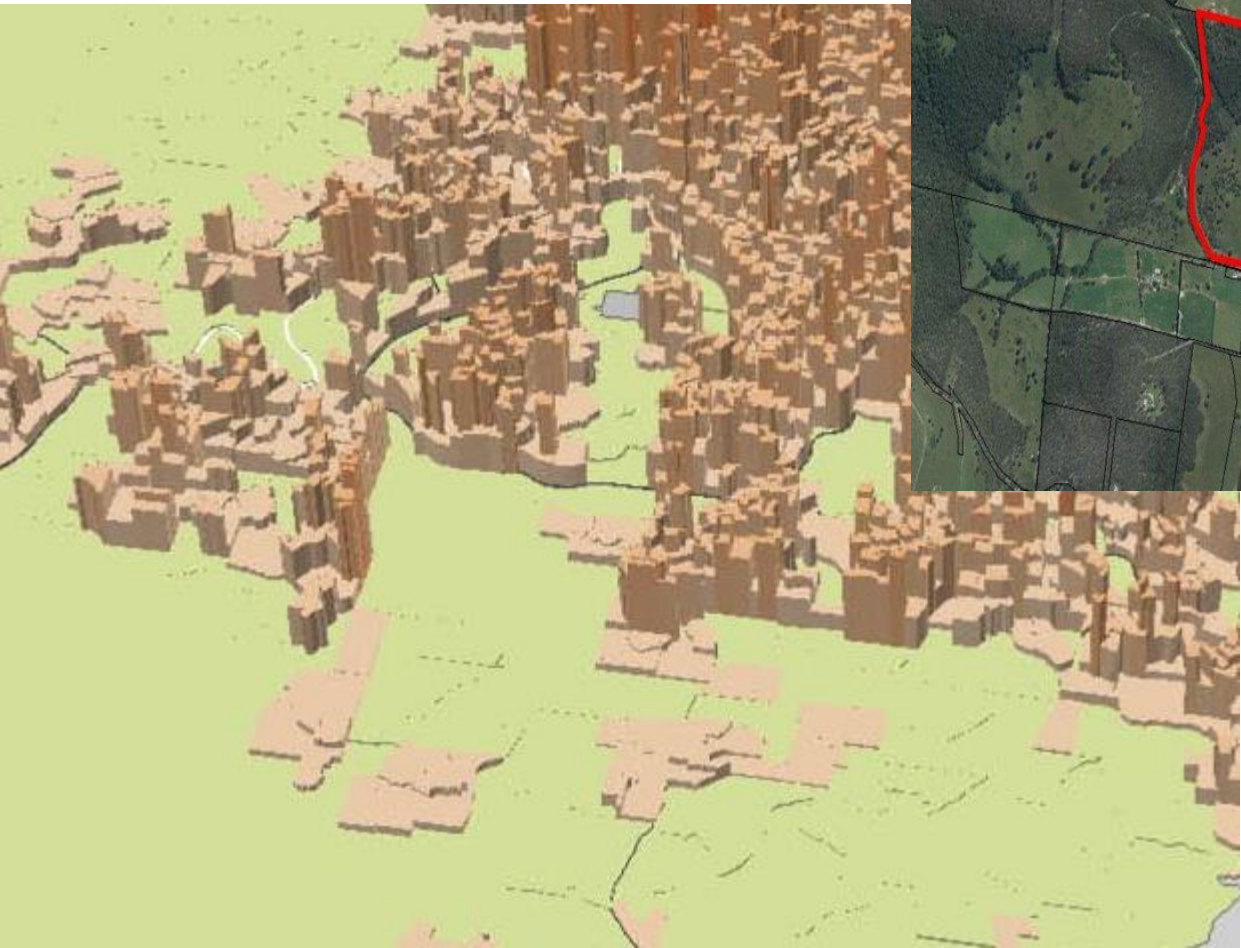
Local government issues – Infrastructure / Assets



Planning and Policy Risk

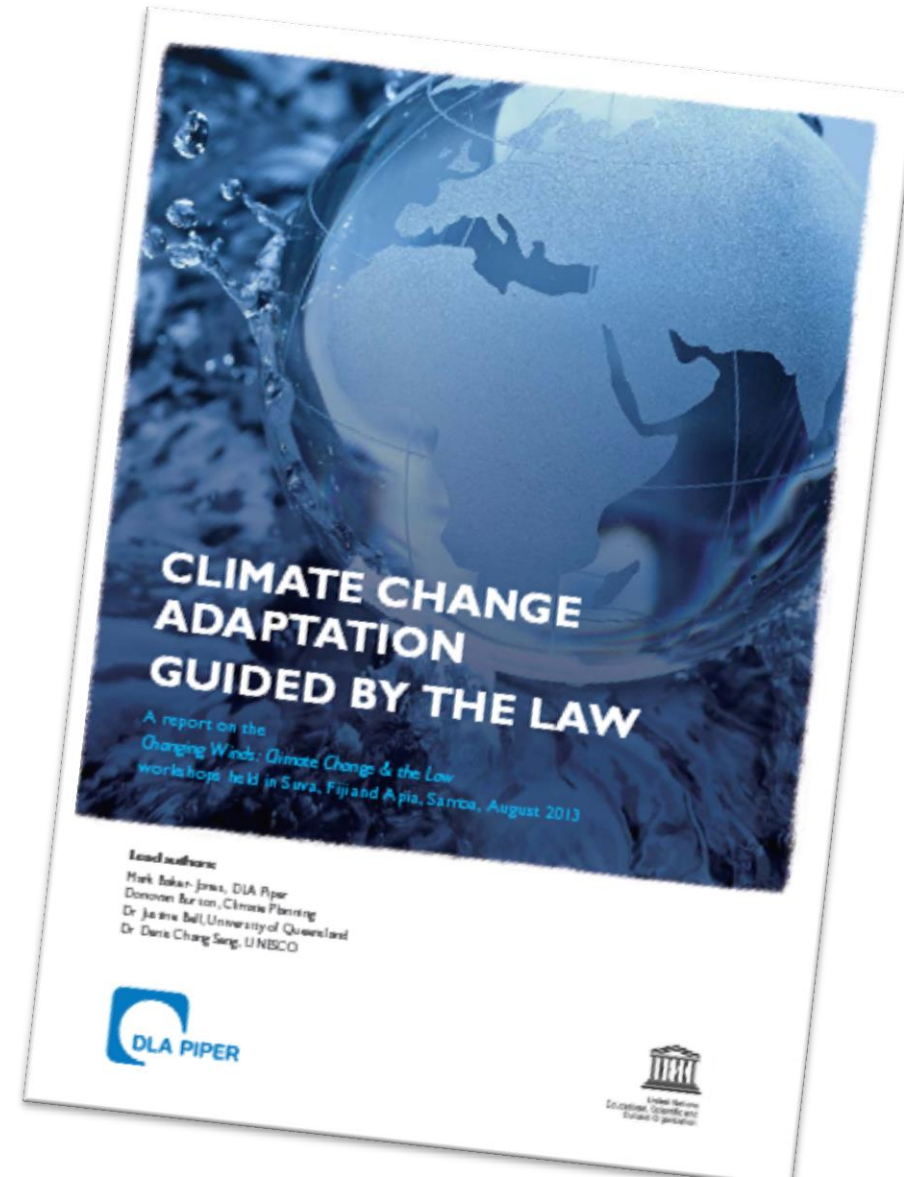


Development / Market Shift



Climate Legal Risk

- Development planning challenges
- Criminal negligence
- Common law - compensation



Environmental risks



Community related risks



Insurance risks



Towns too risky for us, says insurer Suncorp

- Two Queensland towns no longer covered by Suncorp
- Emerald, Roma - towns worst affected by years of flooding
- Existing policyholders face hikes of up to 10-fold

Economic Risks

- Infrastructure charging
- Cost of climate studies
- Staff capacity / training
- Asset depreciation
- Financial investment
- Court fees / awards
- Insurance premiums



Political Risks



Council Responses

- At least 150 councils have done a “scoping assessment” of the risks
- Actual adaptation is ad hoc at best
- Paralysed by legal issues
- Some champions (e.g. Onkaparinga, Kingborough, Clarence, Darebin)

NCCARF Research Findings

Poor understanding of the risks.

Limited access to, and the uncertainty of, climate change impact-related information.

Inconsistent governance structures, coordination, communications and leadership between the vertical tiers and horizontal levels of government.

Inconsistent problem definition and appropriate climate change adaptation frameworks to use for planning.


Competing priorities in planning and implementing responses due to limited operational resourcing, in areas such as staffing and funding.



In a bushfire, some places are not
as safe as they first seem

Be Safe. Be Smart. Be Ready

Woodbridge Jetty, 1967 Bushfires


community
resilience
www.resilientkingborough.com

Emerging issues

- Goal conflicts
- Adaptation champions
- Information v mis-information
- Adaptation / mitigation nexus
- Poor consideration of climate change and emerging technologies

Adaptation Action	Potential Goal Conflict
Sea walls to protect foreshore from sea-level rise	Impact on natural beach nourishment, impact on ecosystem health, transfer of erosion in neighbouring regions
Flood barriers around property	Reduction of air flows and natural cooling
Raised dwelling to protect from flood and /or sea-level rise	Impact on disabled access and access issues for the elderly
Issuing of Section 337 warnings on property transfer inquiries	Perceived or realised impact on property values or loss of sales
Sandbagging during floods	Health impacts after absorbing pollutants from flood water

Thank you

