

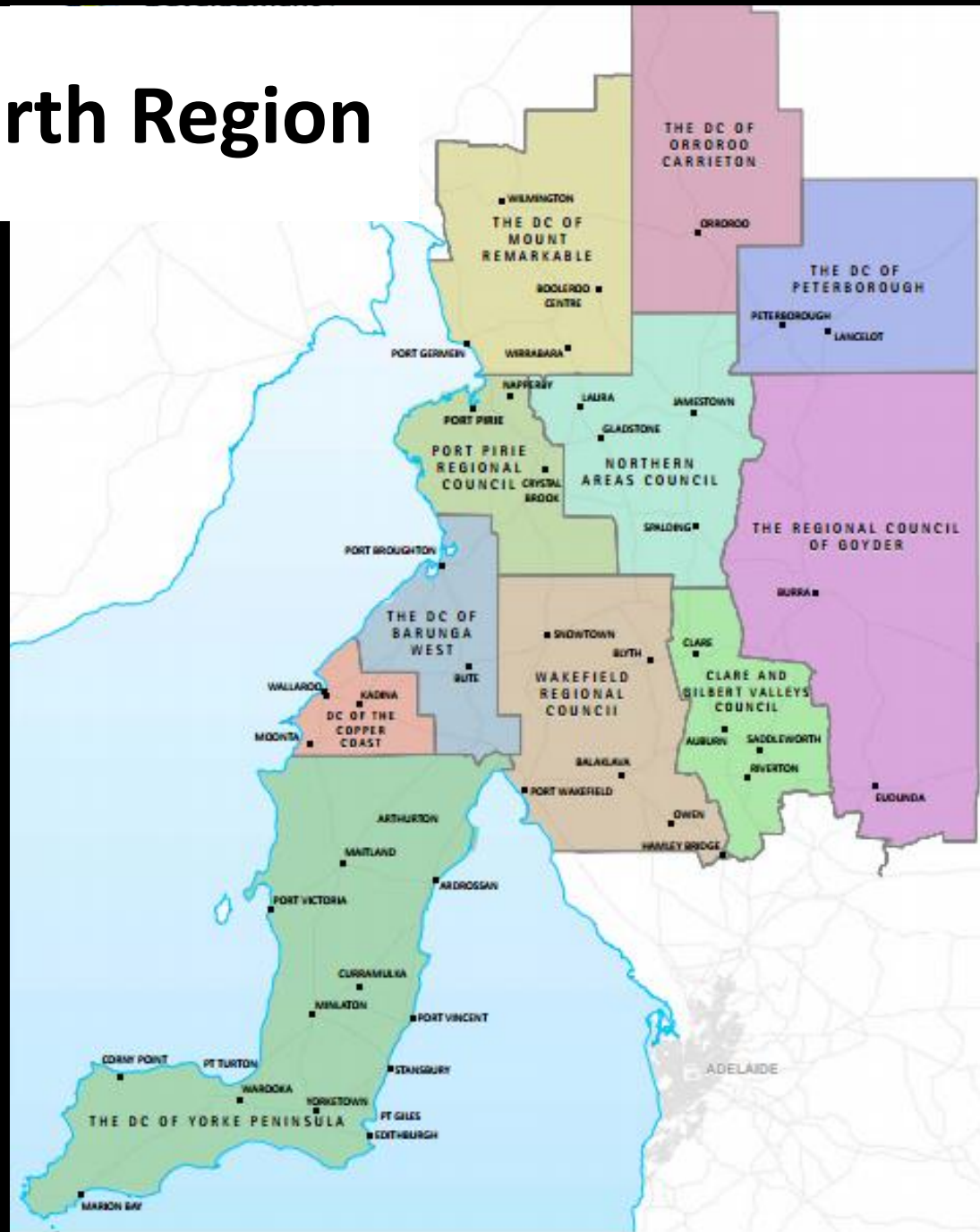
Climate change adaptation through community engagement in Yorke and Mid North region in South Australia



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**12th Australian Climate Change Adaptation Research Network for Settlements and Infrastructure
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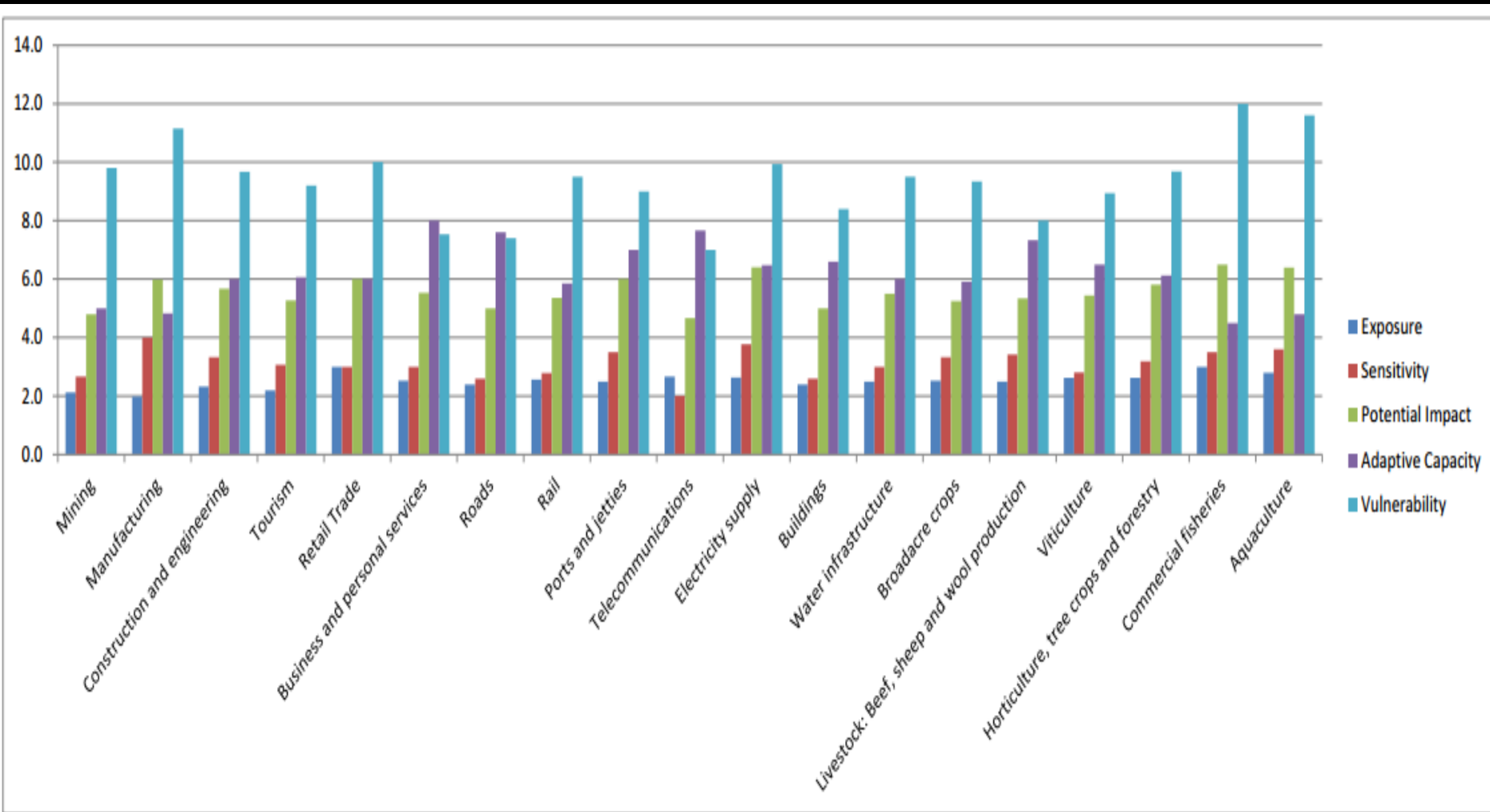
Yorke and Mid North Region



Source: RDA Y & MN Region

<http://www.yorkeandmidnorth.com.au/uploads/files/RDA%20Local%20Government%20Boundaries%20Map.pdf>

Infrastructure vulnerability in Y & MN region



Low adaptive capacity

- Factors affecting the coping ability of communities and inhibit adaptation:
 - High vulnerability (age, illness, socio-economic disadvantage, housing conditions, air conditioning, occupation, etc),
 - Low Independence (experience, behaviour, awareness)
 - Tendency for social isolation and reduced wellbeing (inaccessibility of social support, lack of education, inability to engage in sports and other social activities).

(Williams, Peng, Newbury, Robinson et al 2013)

Local government	Population	Area (km ²)	Aboriginal and Torres Strait Islander community	Over 65 years	Age pensions	Persons with disabilities	Education (no post school education)	Lone person households	Speaks a language other than English at home
Barunga West DC	2,500	1,582	43	678	506	185	1,525	329	20
Clare and Gilbert Valley	8,933	1,842	89	1,679	1,136	370	4,502	915	161
Copper Coast DC	13,401	773	281	3,323	2,600	1,000	7,907	1,574	255
Goyder RC	4,218	6,681	67	931	634	290	2,826	518	84
Mt Remarkable DC	2,893	3,413	93	665	467	137	1,577	341	75
Northern areas Council	4,554	3,070	68	965	636	233	2,596	547	59
Peterborough DC	1,745	3,100	84	415	360	241	1,082	787	23
Port Pirie City Council	17,671	1,761	512	3,357	2,868	1,516	10,426	2,239	725
Wakefield RC	6,783	3,469	102	1,248	845	452	4,002	780	176
Yorke Peninsula RC	11,186	5,834	347	3,210	2,369	700	5,593	1,400	168

Source: ABS, 2012

2008 RISK LEVELS

Risk Level Mapped Against Council Area for Identified Hazards

EXTREME RISK: Act immediately to mitigate the risk.

HIGH RISK: Act immediately to mitigate the risk. If these controls are not immediately accessible, set a timeframe for their implementation and establish interim risk reduction strategies for the period of the set time frame.

MEDIUM RISK: Take reasonable steps to mitigate the risk. These "lower level" controls should not be considered permanent solutions. The time for which they are established must be based on risk. At the end of the time, if the risk has not been addressed a further risk assessment must be undertaken.

LOW RISK: Take reasonable steps to mitigate and monitor the risk. Institute permanent controls in the long term. Permanent controls may be administrative in nature if the hazard has low frequency, rare likelihood and insignificant consequence.

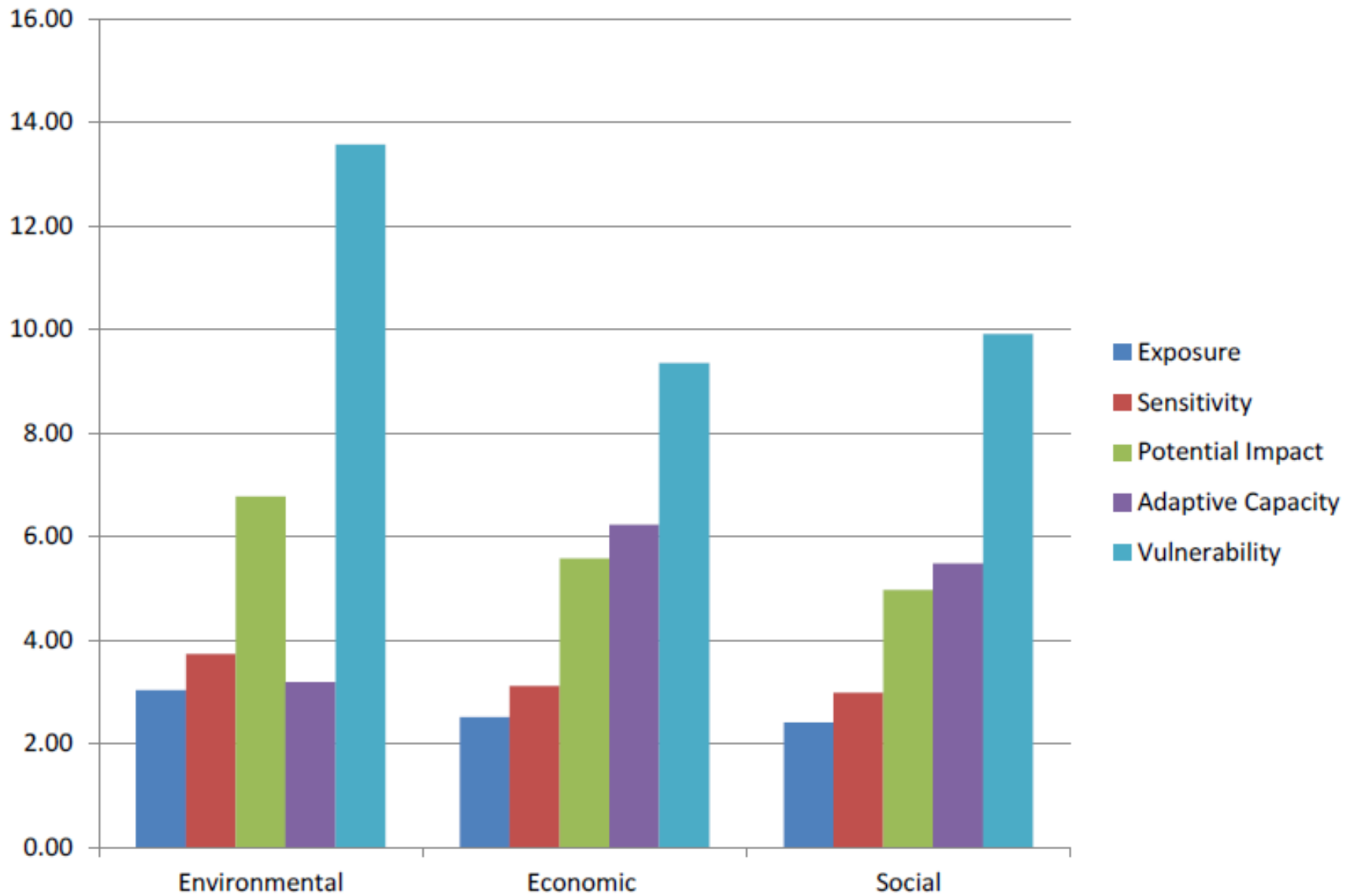
Risk Level Matrix

HB 4360:2004 p05	Harmful Consequences				
	Insignificant E	Minor D	Moderate C	Major B	Catastrophic A
Likelihood					
5. Almost certain	Med	High	High	Ext	Ext
4. Likely	Med	Med	High	High	Ext
3. Possible	Low	Med	High	High	High
2. Unlikely	Low	Low	Med	Med	High
1. Rare	Low	Low	Med	Med	High

Council	Flood	Flood Coastal	Fire - Bush	Fire - Urban	Windstorm	Animal or Plant Disease	Animal or Insect Infestation	Transport Accident	Critical Infrastructure Failure	Hazardous Material Spill	Landslide	Earthquake	Pandemic Influenza	Climate Change
Barossa	High		High		High							Low	High	
Barunga West		High			High							Low	High	High
Clare & Gilbert	High		High		High			High						
Copper Coast				High	High			High						
Flinders Ranges	High		High		High									
Goyder	High		High		High		Low					Low		
Light	High		High		High							High		
Mallala	High	Low	High		High	Low	Low	High						
Mt Remarkable	High	High	High		High									
Northern Areas	High		High		High			High						
Orroroo/Carrieton	High		High	High	High			High		High			High	
Peterborough	High		High		High					High	High			
Pt Pirie	High	High	High		High			High						
Wakefield	High	Low	Low		High		Low	High						
Yorke	High	High	Low		High	High			High					

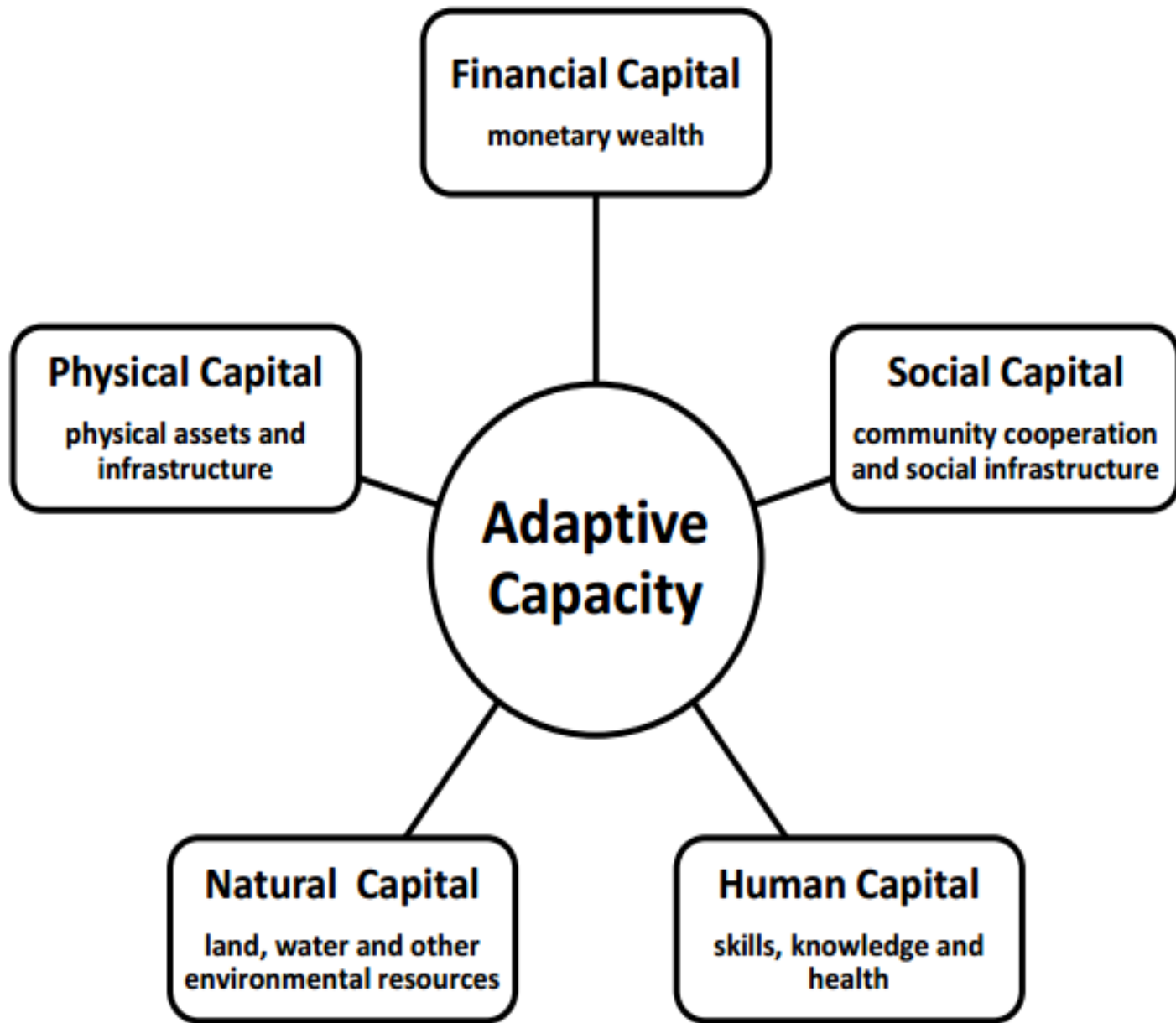
Risk levels of different Local Government areas in Yorke and Mid North Region

Source: Central Local Government Region of South Australia, 2008: 9



Vulnerability assessment for the year 2030: environmental, social and economic dimensions in the region

Source: Central Government vulnerability Assessment (2012:18)



Yorke and Mid North Climate Change Adaptation Action Plan

Community Development and Emergency Management

- Prepare and implement a climate change community engagement strategy for the region.



Source:
<http://www.yorkeandmidnorth.com.au/uploads/files/Yorke20and20Mid20North20Adaptation20Plan20FINAL.pdf>



Community Engagement Strategy: Needs

- A common message
- Better collaboration among stakeholders
- Better defined roles and responsibilities
- An adaptive capacity approach

A common message

- A common understanding of the problem
 - Clare and Gilbert Valley Council works with 22 community groups at grass roots level, called Peak Bodies
- A mutually accepted approach to solve
- Identify common grounds

Better defined roles and responsibilities

- Natural resources
- Drought
- Coastal erosion mitigation
 - Eg: Yorke Peninsula Council Mayor Ray Agnew said the state government should contribute
“The state government are not prepared to put something into it, even though it’s their responsibility” *
- Heatwaves and other climate variability
- Disaster risk reduction
- Emergency management: SES vs
- Infrastructure

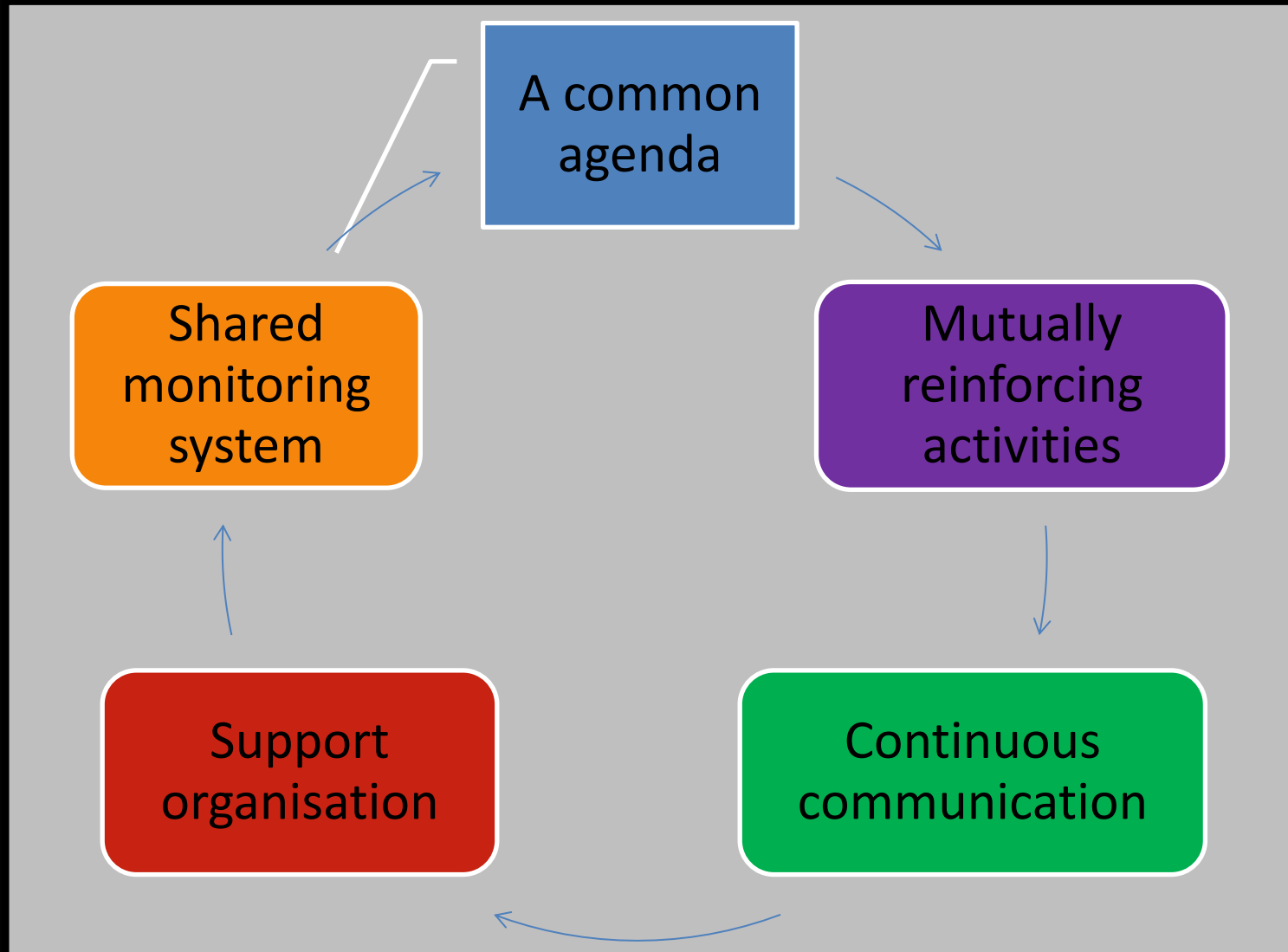
Better collaboration among stakeholders

- Highly place-based, context specific nature of climate change impacts
- Need to identify 'communities of practice' when resolving shared problems (Lave and Wenger,1991: Wenger et al,2002)

Collective Action

- Collective action and shared responsibility:
 - Political leaders, government, businesses, community leaders, service providers and individuals
 - Contribute in an integrated and coordinated manner, in adapting to climate change impacts.
- Equip stakeholders to be aware, engaged and empowered to act collectively
 - Platform for info sharing
 - Innovative technologies
 - A neutral platform to engage
 - Common systems for reporting performance and measuring outcomes

Collective Impact Model



The Collective Impact Model for the Community Engagement Strategy

Source: Based on Kania and Kramer (2011)

Condition	Required components
A common agenda	<ul style="list-style-type: none"> • An understanding of all aspects of the issue • A shared vision of what the future needs to be • A common understanding of the change required • Joint approach in reaching the future envisioned, through agreed set of action
Mutually reinforcing activities	<ul style="list-style-type: none"> • Stakeholder agreeing to undertake specific action that fits into an overarching plan • Stakeholders providing mutual support and encouragement for each other to implement action
Continuous communication	<ul style="list-style-type: none"> • A process of regular meetings over long term to meet each other and build trust • All stakeholders deliberate to recognise and appreciate the common vision and the different action required to be implemented mutually. • Mutual conviction that activities are not priorities of one stakeholder over other, but best options to achieve the common goal
Support organisation	<ul style="list-style-type: none"> • A central organisation to be the backbone for the entire initiative: to facilitate, coordinate, support and follow up : Goyder's Line Sustainability Hub
Shared monitoring system	<ul style="list-style-type: none"> • A list of agreed indicators • An accepted way of measuring results and outcomes • Reporting of progress

Goyder's Line Sustainability Hub

- Established 2014
- Managed by the Central Local Government Region of Councils, Regional Development Australia Yorke and Mid North and the Northern and Yorke Natural Resources Management Board.
- Partners: Flinders University, the Ag Excellence Alliance, Clean Energy Council, South Australian Research and Development Institute, University of Adelaide, University of South Australia and University College London Australia

Acknowledgement

- Australian Red Cross and stakeholder agencies involved in the project

