

Integrated Vulnerability Analysis SA Murray Darling Basin Region



Agribusiness Perspective

Murray Bridge Natural Resources Centre, Murray Bridge 24 July 2012

Agricultural production important to the region...

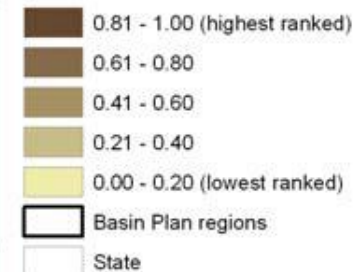
Gross Value of Agricultural Production (GVAP)			
SECTOR	SA	SA Murray Darling Basin	Percentage share of SA
	\$m	\$m	%
Cereals for grain and seed	1,182.43	134.55	11%
Hay	179.98	23.96	13%
Other broadacre crops	320.74	24.47	8%
Fruit	287.01	187.88	65%
Grapes	385.36	217.64	56%
Vegetables	480.12	200.86	42%
Nursery production	63.24	20.59	33%
Dairy production	209.60	67.60	32%
Production from meat cattle	308.15	38.82	13%
Production from sheep and other livestock	740.74	125.48	17%
Total	4,644.41	1,229.40	26%

... but don't forget the rest of **Agribusiness**

Regional Vulnerability

Relative community vulnerability with exposure to 2800 GL scenario (sensitivity analysis using updated prices) Murray-Darling Basin

Ranked scores



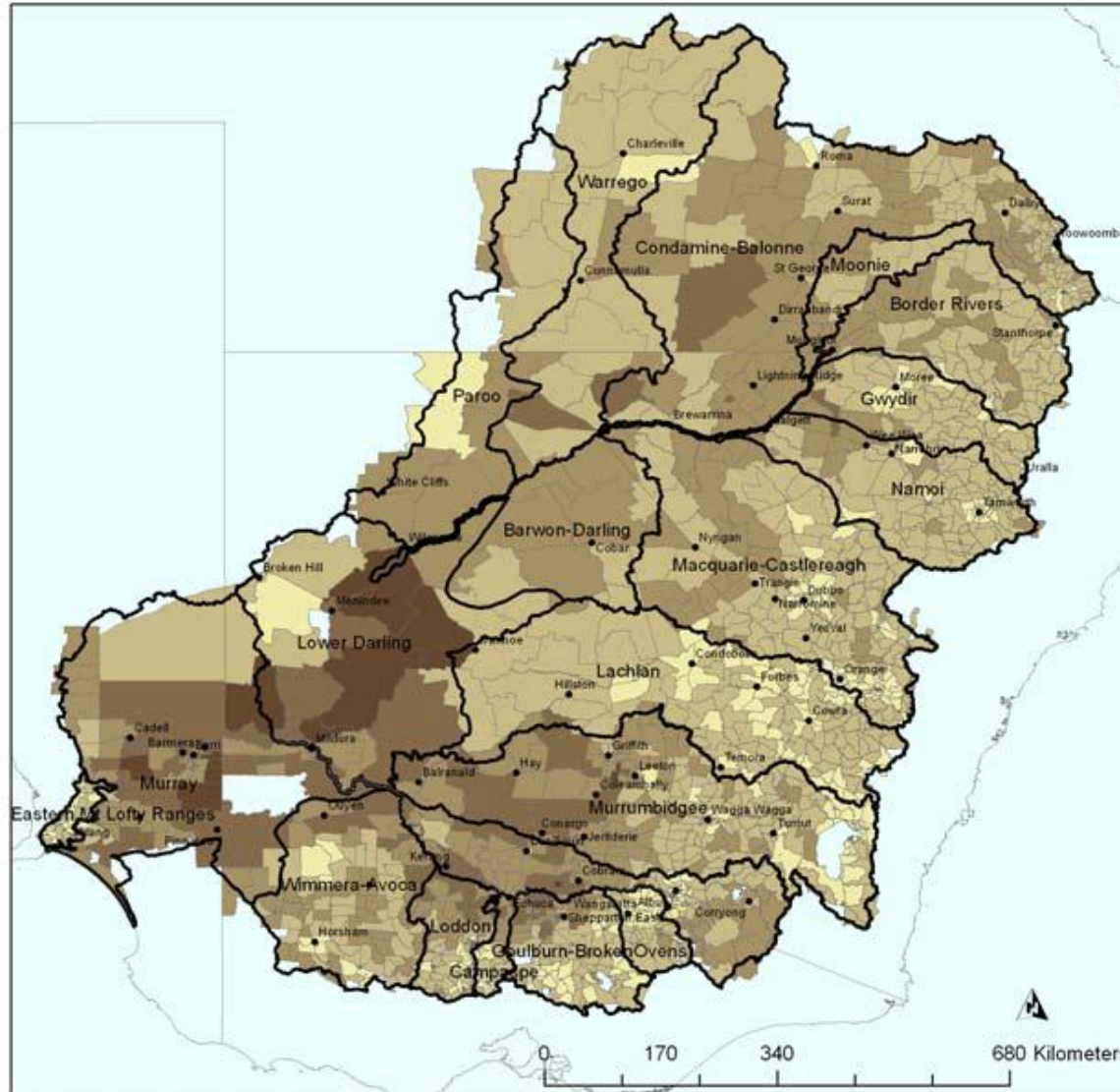
WTM scenario assumptions:

- percentage water use reductions to achieve 2,800 SDL
- relative to WTM baseline scenario
- after water buybacks to date and infrastructure savings
- with interregional water trade
- average of 06-07 to 10-11 commodity prices

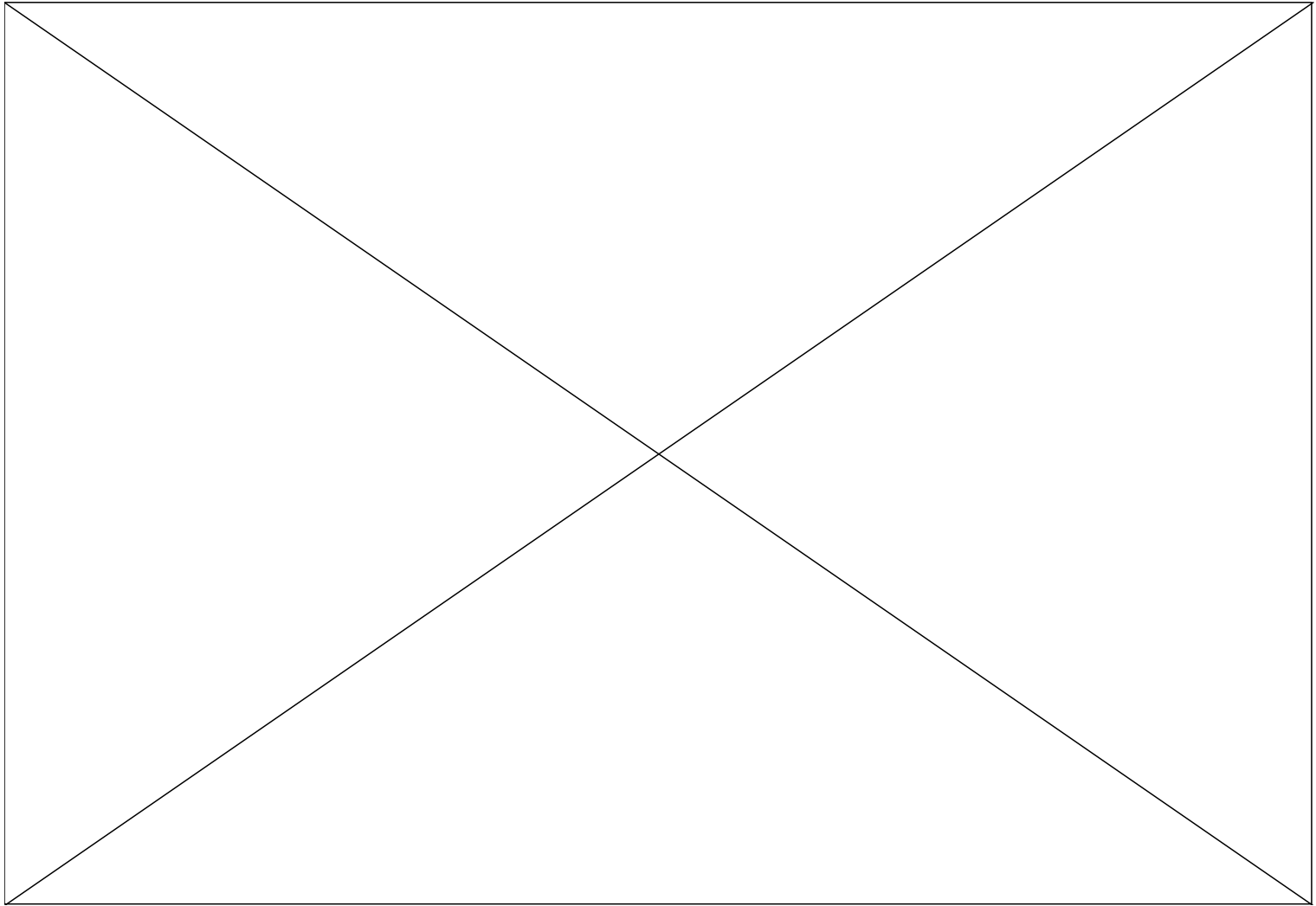
$(SDL\text{savings plus price change} - BB\text{today}) / \text{Base}$

Data sources:
 Australian Bureau of Statistics:
 - Analysis of 2005-06 Community profile data
 - Census districts 2006
 - Urban centre localities 2006
 - Agricultural Census 2000-01
 Murray-Darling Basin and Basin plan regions
 ABARES economic modelling data

Data not available due to:
 - Census district or SLA lies largely outside the Basin boundary
 - Census district is sparsely populated and ABS did not make the data available



A history of adaptive behavior...



3 Ps of climate change and Agriculture*

Physical

- Adjusting current practices
- Changing systems, products, markets
- Transformational change

Policy

- Clean Energy Futures
- Carbon Farming Initiative

Peripheral

- Market changes
- Societal expectations

*Richard Eckard, Director Primary Industries Climate Challenges Centre, University of Melbourne

Farmers are already dealing with climate change - whether they believe in it or not....

W.A. farmer survey:

- 52% uncertain human-induced climate change happening
- 97% of climate scientists agree that it is
- 33% agreed that climate change was occurring
- 19% believed it was human induced
- 31% thought it was a major threat to their business

Government' role:

- address equity concerns
- expedite change
- improve efficiency of the change process