Living Standards and Western Australian Agriculture in Regional Economic Development Perspective

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Plan of presentation

- How WA agriculture is placed in the national, state and regional economies;
- Review some study findings on economy-wide contributions of agriculture;
- Highlight some statistics on the changes in regional farm business structure; and
- Broadly comment on the possible future of WA agriculture in the regional economic development context.
## WA agriculture in the state and national economies

<table>
<thead>
<tr>
<th>Items</th>
<th>Share in the WA economy (%)</th>
<th>WA’s share in Australian agriculture (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value-added</td>
<td>3.5</td>
<td>15</td>
</tr>
<tr>
<td>Exports</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Employment</td>
<td>4.4</td>
<td>13</td>
</tr>
</tbody>
</table>

Note: WA’s share in GDP is about 12 percent. The data are averages over five years to 2006-07. Column 3 represents WA agriculture’s share in the national agriculture sector; e.g. for the ‘value-added’ row, it shows WA agriculture’s share in value-added of the national agriculture sector.

5-year average growth by industry sectors in WA: 2003-04 to 2007-08

Note: ROA: Rest of Australia

Source: ABS various issues, Catalogue No. 5220.0
Output trends in broadacre agriculture: 1977/78 to 2005-06

Index (base year 1987/88=100)

Growth p.a.
1977/78 to 2005/06
1996/97 to 2005/06

AUS = 4.25 4.57
WA = 5.35 5.02

Trends in TFP and TOT in WA agriculture: 1977/78 to 2005/06

Index (Base year 1977-78) = 100

- **Growth (% p.a.)**
  - TFP = 2.02
  - TOT = -2.36

Long-run impact of R&D and rainfall on productivity

Source: Salim & Islam (2008)
Flow-on impact (multipliers)

<table>
<thead>
<tr>
<th>Type-2A multipliers</th>
<th>Mean primary Agricultural industries</th>
<th>Mean secondary agricultural industries</th>
<th>WA mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>2.22</td>
<td>2.76</td>
<td>2.39</td>
</tr>
<tr>
<td>Income</td>
<td>3.54</td>
<td>4.35</td>
<td>2.86</td>
</tr>
<tr>
<td>Employment</td>
<td>1.78</td>
<td>8.09</td>
<td>3.24</td>
</tr>
<tr>
<td>Value-added</td>
<td>2.26</td>
<td>4.26</td>
<td>2.91</td>
</tr>
</tbody>
</table>

*Type-2A multipliers demonstrate the impact of a unit increase in output, income, value-added or employment in the industries shown, on total output, income, value-added or employment in the WA economy.*

*Source: Islam (2006)*
Effects of 6.4% growth in agriculture

Source: Ahmad (2002)
A 6.4% growth in broadacre agriculture leads to

- A Direct \( \uparrow \) in WA’s real GSP .2%
- An overall \( \uparrow \) in real GSP by about .5%
- Thus, an indirect contribution of about .3%

Source: Ahammad (2002)
## Impact of $1m expansion of ag. processing

<table>
<thead>
<tr>
<th>Items</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GSP ($’000)</td>
<td>649</td>
</tr>
<tr>
<td>Total Output ($’000)</td>
<td>1,901</td>
</tr>
<tr>
<td>Employment (Jobs)</td>
<td>17</td>
</tr>
</tbody>
</table>

Mapping WA regions

WA regions Combined

1. Kimberley
2. Pilbara
3. Central = (Gascoyne + Midwest)
4. South Eastern (Goldfield-Esperence)
5. Wheatbelt (Midlands + Upper Great Southern)
6. Great Souther (lower)
7. South West (includes Peel)
8. Perth

Sources:
1 http://www.dlgrd.wa.gov.au/Publications/Docs_RegionalDevelopBasic.gif
2 http://www.abs.gov.au/Ausstats/ABS@.nsf/be4aa82cd8cf7f07ca2570d60018da27/463f50115b6dbf2bca2571a9001e1f44/$FILE/SA.pdf
Population in regional WA: 2006-07

- **Perth**: 73%
- **WA Regions**: 27%
  - **South Western (includes Peel)**: 10%
  - **Central = (Gascoyne + Midwest)**: 2%
  - **Pilbara**: 2%
  - **Kimberley**: 2%
  - **South Eastern (Goldfield-Esperance)**: 3%
  - **Wheatbelt (Midlands + Upper Great Southern)**: 3%
  - **Great Southern (lower)**: 3%

Source: DLGRD (2009)
Regional employment in WA: 2006-07

- Perth: 75%
- WA Regions: 25%
- South West (includes Peel): 10%
- Wheatbelt (Midlands + Upper Great Southern): 3%
- South Eastern (Goldfield-Esperance): 3%
- Great Southern (lower): 3%
- Kimberley: 1%
- Pilbara: 2%
- Central = (Gascoyne + Midwest): 3%

Source: DLGRD (2009)
GSP ($141.4b) share in regional WA: 2006-07

- Perth: 71%
- South Eastern (Goldfield-Esperence): 5%
- Central = (Gascoyne + Midwest): 3%
- Wheatbelt (Midlands + Upper Great Southern): 3%
- Pilbara: 5%
- Kimberley: 1%
- South West (includes Peel): 10%
- Great Southern (lower): 2%

Source: DLGRD (2009)
GVAP share in WA regions: 2006-07

- Wheatbelt (ML & UGS) 44%
- Lower Great Southern 15%
- South West (includes Peel) 10%
- Kimberley 3%
- Pilbara 0%
- Central 7%
- South Eastern (Goldfield-Esperance) 3%
- Perth 9%

Source: ABS various issues, Catalogue No. 7125
Changes in broadacre farm business in WA

Agriculture in a simple regional economy

Gross Regional Product

Business
(e.g. Farming/Downstream)
Activities

Consumption

Investment

Government

Exports

Imports
Concluding comments

- WA agriculture outperforms its counterparts in other Australian states - despite adverse effects of market and climate change.
- Continued R&D investment is important to offset the likely adverse effects of climate change.
- Farm business structure is changing towards greater economies of scale.
- The trend of declining farming population will impact regional communities.
- Integration of post-farm activities within regions of comparative advantage could be a solution.
Useful References:


