Enhancing community benefits from regional development:

It's not just what you do but how you do it

Natalie Stoeckl and Owen Stanley
Based on the

**Regional Economic Multipliers Case-study**

in the

**Outback Livelihoods Project**

Special thanks to:

Adam, Vicki, Michael, Wolf, and Fleur (in prototype study)

plus…..

almost 1000 businesses and organisations across the top end
Some important questions for outback livelihoods

1. Which industries create the most regional economic benefit?

2. How can policy be changed so as to increase the size of regional benefits that occur as a result of development?

3. How does the total regional economic benefit of an industry compare with its environmental and/or social cost?

The study focused on (1) and (2), leaving much scope for further research on (3).
Definition and use of multipliers

- Multipliers can be defined for output, income, employment, etc, and can be measured in various ways.

- If working with income multipliers, then a “multiplier” (M) tells one the final increase in regional income ($\Delta Y$) that may occur in response to some initial increase in expenditure ($\Delta E$):

$$\Delta Y = M \times \Delta E$$
The higher the proportion of total revenues that are re-spent locally, the higher will be the multiplier.
The research ....

• Started with a trial of a survey-based approach to estimating multipliers in the tourism industry.

• Developed methodology for estimating BUSINESS-LEVEL multipliers – which can be grouped, given sufficient data, in any way desired.

• Trial was successful ..... TSCRC funded larger study to use similar methodology to estimate multipliers for range of different industries across entire TS
The target ‘Population’

- Purchased database listing 28,758 organisations within the TS.
- Organisations were stratified according to:
  - ANZSIC industry sectors (agriculture, manufacturing, mining, government services, etc).
  - ‘Regions of remoteness’ – using each the ARIA+ associated with each organisation’s postcode.

![Map of ARIA+ by Postal Units in the Wet Tropics region](image)
Sampling and Responses

- Aimed to send surveys (via email) to 200 organisations within each industry/remoteness category
- "Administrative" issues => we had to cease using emails so lowered our target to 50 (postal) surveys per industry/remoteness category
- 976 responses in total – from MOST postcodes across TS

Number of Respondents by Postcode

- 0
- 1...3
- 3...6
- 6...9
- 9...12
- 12...15
- 15...20
- >20

Wet Tropics
## Responses by industry and remoteness

<table>
<thead>
<tr>
<th>ANZSIC Industry</th>
<th>Inner Regional</th>
<th>Outer Regional</th>
<th>Remote</th>
<th>Very Remote</th>
<th>Missing</th>
<th>Total across all regions</th>
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<td><strong>318</strong></td>
<td><strong>10</strong></td>
<td><strong>976</strong></td>
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The Questionnaire

Amongst other things, we asked about:

• Number and type of employees (FT/PT, ATSI, Local)
• Participation of ATSI people in the organisation’s management
• Perceived availability of different types of goods and services in operational locality
• Expenditure patterns
Mean Number of Employees

The diagram shows the mean number of employees in various industries across different regions. The industries are categorized into Mining, Government, Education, Cultural, Health, Electricity, Accommodation, Retail, Property, Agriculture, Construction, Transport, Personal, Manufacturing, Finance, Wholesale, and Communications. The regions are marked as Outer Regional, Remote, and Very Remote.
### Percentage of ATSI employees in respondent organisations

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<tr>
<th>ANZSIC INDUSTRY</th>
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<th>Remote</th>
<th>Very Remote</th>
<th>Average across all regions</th>
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<td><strong>Average across all industries</strong></td>
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<td>Average across all industries</td>
<td>3.40</td>
<td>6.10</td>
<td>9.54</td>
<td>6.11</td>
</tr>
</tbody>
</table>
Percentage of total revenues spent in different sectors (mean, all respondents)
Percentage of total revenues spent in different local sectors (mean, all respondents)

Percent of total revenues spent within different sectors after allowing for imports (goods and services purchase in different postcodes)
Median business level multiplier estimates

Average (median) Business Level Multiplier

- Health
- Electricity
- Government
- Personal
- Finance
- Construction
- Retail
- Mining
- Education
- Communication
- Propert
- Cultural
- Manufacturing
- Agriculture
- Wholesale
- Transport
- Accommodation

- MA1 - Adjusted by median expenditure of all respondents
- MA2 - Adjusted by median expenditure of retail organisations
Key Observations …

Largest Sector of Employment

- **Education**
- **Agriculture, Forestry, Fishing**
- **Government, Admin, Defence**
- **Manufacturing**
- **Mining**
- **Retail Trade**
- **Accommodation, Cafes, Restaurants**
- **Wet tropics**
Key Observations (cont)

- Respondent perceptions about the ‘availability’ of different sectors indicates that
  - Across all sectors – ‘availability’ is lowest in remote parts
  - Some sectors that are prevalent in regional centres are all but non-existent in remote areas.

- Organisations can’t spend money locally if there are no places in which to spend money.
So … what does this imply?

• We can create more development by
  – Improving supply chains
  – Encouraging local purchase
Developing Supply Chains

• The Savanna is characterised by labour shortages and mass unemployment

• Need to enhance community capacity, particularly via improved
  – Education
  – Training
  – Health
  – Social networks (face to face or internet)

  Long term benefits in increased productivity, but also short-term benefits of extra expenditure (via multiplier)
Increasing local demand

• Need to encourage existing organisations to ‘buy local’
  – Private sector purchasing policy can only be influenced indirectly by government & institutions, e.g. via
    – Agreements under Land Rights and Native Title; more later
    – Rate &/or tax deductions
    – Conditions or preferential treatment for permits & development applications (etc)
  
  – Public sector purchasing policies could be changed – e.g. ‘buy local policies’.
Buy local policies

• These approaches may raise purchasing costs, but
  – economies of scale may be achieved in the longer run, and
  – they may lower requirements to provide income support in the region and so could lower governments expenditures ---- “whole of government approach”

• Once local supply chains are fully operational, these discriminatory procurement policies may be neither necessary nor desirable.
  – Policy should encourage new suppliers to become efficient and self-sufficient in the long run or other developments may be restricted.
Land Rights and Native Title and regional development

- Land Rights and Native Title confers Economic power on holders of rights
- Allows them to insist on receiving benefits from developments (directly, or indirectly, by becoming part of the ‘supply chain’).
- This in turn assists regional development.
Example: Mine

- Without a NT agreement, the nearest area to gain any significant employment or other benefit from the mine is 850 kms away.
- Communities and towns benefiting from the mine under the NT agreement range from 100 kms away to 280 kms
- Many local Aboriginal people have jobs, earning a total of about $7m p.a., they receive training and education, have acquired land, free air transport for certain purposes, and receive about $3m p.a. as compensation and investment funds.
Geographic Extent of Claimant Applications as per the Register of Native Title Claims
31 December 2007

Legend
- External boundaries of Claimant Applications that have complied with the registration test, not required to be tested and/or have been determined

* NOTE: Includes determined claimant applications that have not yet been finalised with the establishment of a Prescribed Body Corporate.

Summary Statistics

<table>
<thead>
<tr>
<th>Category**</th>
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<th>NT</th>
<th>QLD</th>
<th>SA</th>
<th>TAS</th>
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</table>

Notes: ** Where application falls within two or more jurisdictions, allocation is assigned only to one where application filed.
** As shown in legend

Data Statement
Spatial data sourced from and used with permission of:
- Landgate, WA
- Dept of Natural Resources & Water, Qld
- Dept of Land, NSW
- Dept for Environment & Heritage, SA
- Dept of Sustainability & Environment, Vic
- Geoscience Australia, Australian Govt

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Land Rights and Native Title and regional development

• There are now 423 registered NT claims and 311 ILUAs (most in Qld, 167).

• The importance of and potential for LR and NT legislation to assist regional development needs to be better understood by the public and policy makers.
Back to the initial questions …

1. Which industries create the most regional economic benefit?

   Currently, Health and Government

2. How can policy be changed so as to increase the size of the regional benefits that occur as a result of development?

   Encouraging development of local supply chains and buy-local policies

3. How does the total regional economic benefit of an industry compare with its environmental and/or social cost?

   All vitally important topics for future research