Submission No 7

ESTABLISHMENT OF SPECIAL ECONOMIC ZONES

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INQUIRY SUBMISSION

THE LEGISLATIVE ASSEMBLY COMMITTEE ON ECONOMIC DEVELOPMENT

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Introduction

The questions posed by the Legislative Assembly Committee on Economic Development are all questions that have been asked before. Much work has been done in this area. Areas of social and economic depression have been turned around to become sustainable, growing, economic vibrant regions. A measure of a mechanism's success is surely that it continues to be used successfully. One of these mechanisms is Enterprise or Economic Zones. But beware this is no quick fix. The problems of economically depressed areas are ingrained and the solution needs time to build capacity.

Solutions Need to Contribute to Sustainability & Growth by Stimulating Business Investment & Job Creation.

Why are there areas where business investment, economic development and the resulting job growth are not happening, particularly in regional, rural and remote areas of NSW.

A large proportion of businesses in rural and remote regions are classified as Small Business. Small Business, by their nature, cannot establish and/or grow when faced by high risk barriers. To tackle and succeed against high risk barriers is beyond Small Business capacity. This is especially so in economically and socially depressed areas.

The aim of economic development is to grow economic activity and increase job growth to such an extent that the economy can support and feed off itself, giving it sustainability. In depressed rural areas the goal of market forces and the goal of economic development are not the same. Put simply in a depressed area, with the need to maximise profit, market forces will simply move the economic activity to a less risky area, diminishing economic development and preventing growth. Why do businesses prefer to do business in Bathurst rather than Brewarrina, because Bathurst is less risky.

How then can these depressed areas become regions of vibrant economic development. As important, how can this economic development grow to be self-sustaining to a level where market forces can again take over and work in a positive manner, for the betterment of the region.

In economically and socially depressed areas these high risk barriers, to business investment, don't need to be demolished they simply need to be reduced to a size that small business can cope with. Once this happens new business can start to establish and established businesses can invest in growth, as these businesses grow so does their capability to cope with greater risk.

What is the Viability of Establishing Special Economic Zones Using Financial Incentives to Promote Economic Growth, Jobs and Investment.

Considerable work has been done, over the last decade, by the Barwon Darling Alliance (BDA), in researching and constructing a model for an economic zone, in western NSW, to enable business investment to increase to a level of sustainable economic development.

This work has also been supported through the 2004 Churchill Fellowship study which focused on whether long term benefits continued to flow, from designated economic zones, a decade after these zones were de-designated. Were the benefits self-sustaining.

The Barwon Darling Alliance (BDA) is a group whose members are the Local Government Councils of Central Darling, Bourke, Brewarrina, Walgett and Coonamble and the Murdi Paaki Regional Assembly. In 2004, the BDAs project manager was awarded a Fellowship by the Winston Churchill Memorial Trust to research economic tools to assist the rejuvenation of depressed rural areas, with particular reference to rural enterprise zone areas, in the United Kingdom.

The big question the report looked to answer was did the incentives lead to long term, sustainable economic development and investment after the period of the incentives ceased.

The conclusion of the report was that a Central Government framework and menu of incentives, which were made available to designated areas within depressed rural regions, implemented and administered at Local Government level, had a positive long term effect on economic growth and capacity. It was shown that the continued economic growth, of the designated areas and the surrounding regions, a decade after the incentives had ceased, was related to the catalyst effect created by the period of incentives.

The BDA, in collaboration with the Western Research Institute, has taken the principles supported by the United Kingdom experience and constructed a model that can be tailored to apply to Australian regions, using locally and regionally identified high risk barriers and matching incentives, to reduce the inhibiting risks.

Attracting Industry and Business

What are Enterprise/Economic Zones

Each enterprise zone (EZ) uses a similar framework. Through dismantling the identified barriers preventing economic growth, the EZ lowers the business risk environment so that private investment can establish new businesses and expand existing businesses, creating more jobs, for a set geographical area.

This is not done as an end in itself but as a catalyst for the rejuvenation of depressed areas. The ultimate goal is to raise the quality of life for those living in the area through increased job growth and employment.

The focus of EZs is to increase employment, through the increase in job numbers available, in a set geographical area. This is produced by government incentives taking up the initial business establishment and expansion needs that the market has failed to fulfil and so create the business environment and capacity, where the market will again intervene to produce positive economic growth. EZs have a start and finish date.

What do we Know of Enterprise/Economic Zones - The Findings of the UK Study

When researching what has and hasn't been achieved with enterprise/economic zones care must be taken not confuse the findings and effects of urban zones and rural zones or be tempted to generalise off material primarily regarding urban zones, when referring to rural areas. This is important where the zones being researched are in the UK, the USA or other western countries.

The rural EZs, in the UK, were of particular interest due to the ten year period that had elapsed since de-designation (the cessation of incentives). Also because this policy was implemented in a multi-tiered government system and all three rural zones (termed in UK literature as 'remote' zones) were in less accessible areas. All three were suffering from economic decline, high unemployment, decreasing population, an aging population, outward drift of younger population and lower than average incomes.

To begin with there was much scepticism that the EZ policy, once implemented, could make a difference. This is not a quick fix solution. The effect of the EZ on employment, business activity and community confidence was an accumulative one.

The aim of the study was to determine whether or not an instrument of economic development, such as enterprise/economic zones, could provide a catalyst mechanism that could kick start positive economic development and that the economic development would continue to grow and become sustainable even after the incentives cease.

Long Term Benefits:

Effect on Region
There have been two major effects on the region around the EZ areas. One was that the attraction of investment into the EZ areas also acted to attract business to the region around the zones.

The second was the increased business capacity of both businesses in the EZ areas and businesses in the region around them. It has been recognised that the increase in business expansion and establishment, within an area gives a significant flow-on affect to the area, through an increased take up of local goods and services, so that even businesses that do not/cannot take up the specific incentives can benefit from the EZ structure. This effect also flowed to the region surrounding the zone.

Diversity
It was felt that diversity was one of the keys to the economic success. Diversity delivered the EZ areas a more robust economy. A region that depends heavily, on one industry or single large business, always carries a high consequence risk of that industry or business being disrupted or diminishing.

Investment Beacon
All three areas marked that the best benefit from the EZs was the opportunity to create an awareness of the problems and positive opportunities. It put the area on the investment radar as a possible option. Problems weren't seen as limiting investment.

It was important that the EZ application was competitive, giving evidence of keen participation and preventing any mark of stigma. The EZs were seen as areas of real potential. This was known as the "Beacon Effect".

The attention drawn to the area, by EZ designation, was felt by both business and administration to be a major benefit. A company knew upfront what assistance it would receive and what assets the region held that complemented and assisted their business.

Employment
In all three areas unemployment fell and continued to fall post EZ, two dramatically, the third by a measure. There was a steady drop, post EZ, over the following decade.

Partnership
The EZ drew all local departments and agencies together with a common focus. It enabled different schemes and grants to be offered as a combined package, not officially being joined but practically being assessed, due to personnel in each department and agency working together and having personnel on the EZ committee.

This benefited the whole region. The focus on economic activity meant partnerships continued post EZ and were still a huge benefit a decade later. This close partnership continued making economic development delivery, by government, very much more efficient and effective on the ground.

Income
As documented in the report, one region studied, had one of the lowest pay rates in the country, rising in 2004 to close to the national average. As the employment rate, in the designated areas rose so did disposable income.

Social Issues
In the regions, there was a positive knock on effect from the increased employment, which saw a decline in social issues, in previously depressed towns. The increase in local employment led to an increase in local area spending, adding to the rise of a more positive economy.

Prior to EZ designation, the regions had low female workforce participation as well as health, housing and education issues. The EZ indirectly increased investment in housing and raised health standards. People invested their increased household income in themselves and their families. It raised aspirations by bringing in more money and employment into households.

In all three areas the percentage of female participation in paid employment was greater after the EZ designation period than before EZ designation.

Population Movement
The three regions studied saw the return of previous outward youth, coming back with young families and/or a slowing population drift out and an inflow of people from other regions moving into the region, for employment opportunities.

Catalyst
Even though further economic development had occurred after the EZ period, it was felt by most involved, both during designation and after, that the EZ designation period was the catalyst to the current economic activity.

The EZ was a catalyst for the economic development that came after it. It focused attention on the needs and drew investment into the areas. Something market forces had failed to do. Benefiting both the zones and to the regions surrounding the zones.

Australia verses United Kingdom

In the UK, the EZ policy took a strictly economic structure. These economic incentives were seen as a direct way of lowering the economic barriers to business investment. These incentives were not just financial incentives. The freeing up of government red tape and giving priority within the planning process, to zone businesses, were both important as were social aspects.

The barriers in the proposed BDA model are social and economic, the two are closely linked. So the incentives need to be socio-economic incentives. The barriers and the means of lowering them have been identified by established businesses in the region.

(For more detailed information on the UK experience, see the Churchill Report in the Appendix.)

Input – What Could Be Provided

So what is needed to implement enterprise/economic zones in economically depressed areas of NSW.

What is needed is a government framework involving a list of incentives that can be applied locally to suit a local response, to target the local high risk barriers which are preventing business investment. Each area will have a number of high risk barriers which will need to be matched with incentives. These barriers will not necessarily be identical for each area, however many may be similar, which is why there needs to be an overriding framework which can be flexible enough to be applied locally.

The BDA Model - Why the BDA did it.

The Barwon Darling region (that encompassed by the five Local Government Areas of Central Darling, Bourke, Brewarrina, Walgett and Coonamble and forming a significant part of the Murdi Paaki region of western NSW) has been steadily declining and becoming more disadvantaged, over past decades. The decline has been in both social and economic indicators. Without some form of initial intervention it is expected to continue to decline into the future.

In a response to this the Barwon Darling Alliance (BDA) commenced researching, nationally and internationally, studies and actions involved in rejuvenating depressed rural areas. Towards the end of this research, the BDA's project manager was awarded a Churchill Fellowship to travel to the United Kingdom and study three rural/remote areas, which had used enterprise zone designation in an effort to confront and overcome similar disadvantage factors as occur in the BDA region.

With the report concluding that such a framework could be a catalyst for sustained economic growth which addressed many of the major areas of disadvantage, prevalent in the BDA region, it supported the BDA collaboration with the Western Research Institute to model an enterprise/economic zone for western NSW.

In undertaking this task the BDA was fully aware that the rejuvenation of a socially and economically depressed area, such as theirs, would be a long term venture and that the implementation of the model was the catalyst for greater economic investment and growth and not a solution within itself.

The general rationale for socio-economic zones is to promote employment growth (especially for targeted groups such as indigenous persons and the long term unemployed) and to increase business investment. The specific rationales for the implementation of a socio-economic zone in the Barwon Darling region are:

1. To achieve restructuring that will promote the long-term sustainability of the Barwon Darling region.

2. To alleviate the relatively high levels of economic and social disadvantage in the Barwon Darling region compared to the average for a New South Wales community.

3. To address the perceived failure of the existing framework of development policies to tackle the structural and long-term development problems of the region.

4. To address the failure of the free operation of the market to generate economic development and to provide social opportunities such as a good quality education and employment for indigenous persons and the long-term unemployed.

5. To allow the Barwon Darling community to form a stronger partnership with government to promote economic development in the region.

The model is a framework which houses a list of incentives which match off against the highest risk barriers of the BDA region, as identified by businesses within the region itself. These incentives are set to lower, not extinguish, the level of risk to a point where business and especially small business can increase investment and grow. The model contains three broad groups of incentives that may assist realise the objectives of the Barwon Darling enterprise zone:

- **Social incentives** to improve the quality of life, including: increased public support for education to improve basic reading and writing skills; mentoring for unemployed people, especially indigenous persons and the long-term unemployed, to help them make the transition to work; increased crime and drug prevention; an improvement in the quality of childcare; and more family-friendly work policies.

- **Economic incentives** to promote employment growth and business investment, including: a 25 percent wage credit for new employees; interest rate grants to reduce the cost of finance; accelerated depreciation grants to encourage capital investment; and grants to offset various government costs and charges that could assist new businesses.

- **Capacity building incentives** to strengthen the ability of the Barwon Darling community to drive development, including support for networking and clustering; the establishment of a research partnership with Charles Sturt University; advice from experienced exporters on how to penetrate foreign markets; and priority consideration for government infrastructure development.

Aside from the incentives the main elements of the Barwon Darling enterprise zone model are:

- A **decentralised zone administration** that is responsible for: community planning, managing the budget; selection of eligible firms; and allocation of funding for enterprise zone incentives. Local government can play a strong role in the administration of the Barwon Darling enterprise zone, as this will promote community empowerment.

- There should be **competition** between eligible regions for designation as an enterprise zone and competition between eligible firms for the allocation of funding within a zone. This competition should enhance the effectiveness of enterprise zones as a development tool.

- A **local steering committee** should be formed with representation from all three levels of government. This steering committee should provide strategic direction for the Barwon Darling enterprise zone and be accountable for the allocation of public funding.

- While it is the responsibility of the local steering committee to monitor the success of the Barwon Darling enterprise zone, the state government should commission an independent **evaluation** of the overall effectiveness of the zone. As part of this assessment, performance and approval processing times should be regarded as customer service obligations.

<u>An Example of the Matching Process of Risk Barrier with Incentive.</u>

It is obvious from the model that a significant amount has gone to support a wage incentive, this being due to the very high risk of employing workers of unknown quality or with no paid employment experience. Many businesses, within the region, have past experience with workers of low literacy, low or no paid work ethics and a high degree of unreliability and lack of initiative.

Much work has been done with increased education and training, to the extent that many unemployed people, through this region, hold a number of training certificates and continue to be trained.

The risk for the employer is the risk of the unknown when taking on a new employee, to whom this is the worker's first job or first fulltime job. The two greatest assets of a new employee are that of reliability and initiative. These are unknowns, until the worker had retained a job, in the first instance.

In an area, such as the BDA region, many of the unemployed have never held a fulltime job, many of the unemployed have a family history of several generations, of never having a fulltime job. This brings many shortcomings but for the initial employer, the major ones are work ethics, a sense of responsibility to the job and employer and a lifestyle that enables the worker to be able to regularly turn up for work, day after day, week after week, month after month, year after year.

From the worker's perspective, it would be illogical to assume a knowledge of work ethics if a person had never previously been in the workforce. Similarly it would be illogical to expect someone who has never had the restrictions or regimentation of worklife, to instantly cope with a change of daily pattern from a no employment day to a fulltime employment day and the effect this then has on his previous daily pattern, family expectations and routine.

The incentive must address the risk not just the symptoms, of the risk. Therefore the risk countering incentives are not just wage credits, to offset the lower productivity of the new employee and the additional take up of business resource and man power coping with the new employee, but the accompanying mentor programme and three project officers, one being specific to supporting indigenous worker mentors. It is a reality, in the BDA region, that the first hurdle for many undertaking fulltime employment, for the first time, is getting to work on time or simply getting to work. Experience with traineeships has shown the necessity for a support person to go as far as knocking on doors to ensure a person is up and going to work.

The temptation, to government, to cherry pick popular or easily affordable incentives and ignore others in a model is to negate the whole model. The model will only accomplish its desired aim if all incentives are implemented so that all high risk barriers are lowered at the same time. There is no point in investing funds in lowering two or three high risk barriers, if growth investment is still blocked by the continued high risk levels of barriers identified but not matched by funded incentives.

(For more detailed information on the BDA model see the Appendix for the updated 2008 Model.)

Re-stressing the Long Term Benefits

The UK experience shows that the rejuvenation of depressed areas is a long term event. However, it is possible to raise the economic development, of an area, in a sustained manner.

Each enterprise zone uses a similar framework. Through dismantling the barriers preventing economic growth, the EZ lowers the business risk environment so that private investment can establish new businesses and expansions, creating more jobs, for a set geographical area. This is not done as an end in itself but a means of being the catalyst for the rejuvenation of a depressed area.

Socially and economically depressed areas are usually the recipients of large amounts of government funds, often resulting in low levels of situational change. The model described above and the experience of similar zones in the UK, give the promise of greater return on investment for government funds, applied to these depressed regions.

When looking at regeneration, a long term view is needed. Because funding bids and politics are often on an annual or short term timeframe, there is a need to plan and have a vision that is long term in order to get long term results.

Summary

The UK Central government saw the policy as just economic development focused and not effected with social issues. In hindsight it is now recognised that there is a need for the social side to be addressed as well as the economic.

It was never envisaged that a UK model would be used in Australia. However, it was always important that foreseeable long term benefits were a probable outcome. It is envisaged that a framework that gives long term benefits to depressed rural areas would be used to trial an Australian model.

The focus of EZs is to increase employment, through the increase in job numbers available, in a set geographical area. This is produced by taking up the initial business establishment and expansion needs that the market has failed to fulfil and so create the business environment where the market will again intervene to produce positive economic growth.

Care must be taken not confuse the findings of urban zones and rural zones or be tempted to generalise off material primarily regarding urban zones, when referring to rural areas.

The UK zones studied were implemented in the 1980's. The incentives were available for ten years and the Churchill Fellowship investigation occurred in 2004, a decade after the incentives ceased. These enterprise zones were and are recognised by the UK Central and Local Government as being an effective economic development tool. This is evidenced not only from the positive economic change in these areas but by the UK Government announcing the establishment of 21 new enterprise zones in the UK 2011 Budget.

Appendix

1. Winston Churchill Memorial Trust 2004 Report by Charlotte Finch

2. 2008 Barwon Darling Alliance Socio-Economic Zone Model
   Prepared for Barwon Darling Alliance, By Western Research Institute

The Winston Churchill Memorial Trust of Australia

"The only way a man can remain consistent amid changing circumstances is to change with them while preserving the same dominating purpose."
Winston Churchill (Policies Old and New)

Reported by – Charlotte Finch – 2004 Churchill Fellow

To research economic tools to assist the rejuvenation of depressed rural areas with particular reference to rural enterprise zone areas in the United Kingdom. To investigate current and future rural development trends.

Signed CHARLOTTE FINCH Dated 5TH JANUARY 2005

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1. INTRODUCTION and ACKNOWLEDGEMENTS

The 2004 Churchill Fellowship study visit to the United Kingdom focused primarily on an investigation into whether long term benefits had flowed from the designated rural enterprise zones that were set up around 1983 and de-designated around 1993. This study, occurring ten years after the areas were de-designated, is well placed to do this.

Information was sourced from within the zone regions and also from different levels of government, from those who were involved in the zones during designation and from those currently involved in economic development and regeneration.

The secondary task was an enquiry into the current and future trends in Rural Development. Such trends are not restricted to international boundaries and so have the potential to have similar impact on Australian rural communities.

The considerable experience and knowledge I gained through my visit to the United Kingdom would not have been possible without:

- First and foremost, the opportunity and the financial support granted to me by the Winston Churchill Memorial Trust, along with the support of their State and National offices.
- The support of the Barwon Darling Alliance, my employer, which ensured that my visit and study could be for an extended period of time.
- The people who were involved in the three designated enterprise zones studied and who so generously gave up their time to talk to me.
- Those people who are currently involved in economic development and regeneration in the United Kingdom, from those in the Office of Deputy Prime Minster, to those on the ground working in the areas researched.
- The people involved in rural development research and on ground projects who were only too willing to assist and advance my knowledge.
- My husband and my sons for their encouragement to undertake such specific study but seemed pleased at my return.
- A very special thank you to Pam Marr and Joyce MacLennan, Scotland, both of whom were good enough to organise meetings, for me, while I was still half a world away.

2. EXECUTIVE SUMMARY

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Project Description:
The objective of the fellowship was to determine whether long term benefits flowed from enterprise zones, implemented in depressed rural areas and if the enterprise zones were successful as catalysts, in stimulating the rejuvenation of the regions. The fellowship offered the opportunity to study three UK rural areas, ten years after enterprise zones had ceased.

Highlights:
Central Government developed the Enterprise Zone policy that was implemented. Meeting with people directly involved with the Regeneration Division and the Office of Deputy Prime Minister, in London, was invaluable.

As was visiting the de-designated regions and meeting not only people currently involved in economic development but many of the people who were intimately involved with the EZ during designation, some for the complete ten year period.

Major Findings:
- Positive effect on the wider region, both in attracting investment and raising capacity.
- Increased economic diversity creating a more robust economy.
- Increased employment and average incomes.
- Created partnerships, of regional benefit, that remained post EZ.
- A decline in social issues followed the decrease in unemployment.
- Proved to be a catalyst for socio-economic rejuvenation of the region.

Lessons Learnt:
- Economic and social issues must be tackled together.
- Proactive administration is critical for EZ implementation.
- EZ is a powerful marketing tool for the wider region.
- Governments utilising the EZ framework need to think long term, as EZs are a long term vehicle.

Recommendation:
That a trial or trails be conducted in depressed rural areas, in Australia, to ascertain whether the EZ framework could deliver both the long term benefits and be the catalyst for the rejuvenation of these areas, as has happened in the UK.

That any such trial, encompass a targeted range of socio-economic measures rather than solely economic incentives.

3. PROGRAMME

England

London — 19th September – 23rd September

Office of the Deputy Prime Minister
Don Gibson - Regeneration Division,
Rob Schofield – Senior Research Officer
Mark Rolls – Policy Advisor

Scotland

Aberdeen — 26th September – 29th September

Arkleton Institute, University of Aberdeen
Prof. Ken Thomson – Dept. of Land Economy
Dr. Deb Roberts – Senior Research Fellow
Prof. Mark Shucksmith – Dept. of Land Economy
Prof. John Bryden – Chair of Human Geography

Inverness — 30th September – 1st October

Inverness & Nairn Enterprise
Dr. Stuart Black - CEO

Invergordon — 2nd October – 4th October

Highland & Islands Enterprise
Shaun Murphy – Senior Development Manager
Archie McCreevy – Head of Manufacture and Innovation,

Ross & Cromarty Enterprise
Roy Munro – Development Manager
Justin Calder - Director

England

Allerdale — 6th October – 8th October

Allerdale Borough Council
David Martin – Head of Regeneration

West Cumbria Development Agency
Ray Patterson – Property Manager

Wales

Milford Haven 11th October – 13th October
Pembrokeshire County Council
Kefin Wakefield – Head of Economic Development

England

Kent 16th October - 17th October
Chartwell House

Sussex 18th October – 19th October
University of Sussex, Falmer
Institute for Development Studies
Dr. Grace Carswell – Human Geography, Development Studies
Dr. Martin Greeley – Economist, Poverty and Rural Development

Cambridge 20th October – 21st October
University of Cambridge
Dr. Peter Tyler, Dept. of Land Economy, author of the Final Evaluation of Enterprise Zones, 1995.

Norwich 25th October – 29th October
University of East Anglia
School of Development Studies
Dr. Frank Ellis, Agricultural Economist - Cancelled

London 31st October – 1st November
Office of the Deputy Prime Minister
Regeneration Division,
Second meeting

Sussex 2nd November
University of Sussex, Falmer
Institute for Development Studies
Second meeting

4. BACKGROUND

This report deals solely with rural enterprise zones (EZ) and does not in anyway attempt to deal with the more prolific urban enterprise zones. As can be appreciated given the wide divergence of environments, both business and physical, care must be taken not to confuse the evaluations from either. As will be shown later in the report the aggregation of data from a large number of urban zones with a small number of rural EZ can lead to assumptions which may be collectively but not individually correct.

4.1 Depressed Rural Areas

It is recognised that there are areas in rural Australia that are depressed both economically and socially. Often the social issues are closely linked to a lack of available employment. The investment by government in many of these areas is quite high however the return on that investment is not satisfactory. There is a need, in these areas, to turn around the current declining trends of socio-economic indicators. This is a matter of urgency not simply in regard to raising the quality of life for the effected communities but also to increase the governments (public funding) return on investment in these areas.

This report looks at a tool which has been assessed and evaluated as having the potential to be a catalyst for economic growth and an increased quality of life, in depressed rural areas. This report investigates whether or not there were long term benefits which had an effect on the region, not just the zone areas, ten years after three rural enterprise zones were de-designated and their specific incentives removed.

The second focus of the report looks at some of the current thinking about the present and future rural development trends, in both developed and developing countries, as these trends effect rural communities and their future potential.

4.2 Enterprise Zones

Enterprise Zones are a policy tool to stimulate the rejuvenation of depressed areas. It is a catalyst tool to generate positive change and does not aim to solve all problems simultaneously.

EZs have been used widely in a number of western economies. The tool has been used extensively in urban areas and to a lesser extent in rural areas. Particular investigation is necessary to investigate rural EZs as most reports mix the data of urban and rural EZs with the result that the averages and assumptions produced are overshadowed by urban results and assumptions. Often rural particulars and peculiarities are averaged out.

The focus of EZs is to increase employment, through an increase in available jobs, in a set geographical area. This is accomplished by taking up the initial business establishment and expansion needs that the market has failed to fulfil and so create a business environment where the market will again intervene to produce positive economic growth.

An enterprise zone framework looks to lower the barriers to business establishment and growth, in order to stimulate activity, to the point where the market forces will again promote positive economic growth.

4.3 United Kingdom Enterprise Zones

In the UK, the EZ policy took a strictly economical structure. The barriers were seen to be purely economic in nature. Therefore economic incentives were seen as a direct way of lowering the barriers blocking investment in the UK EZ areas. However, it is interesting that once on the ground, social aspects and needs were identified by the local administration.

The rural EZs in the UK were of particular interest due to the ten year period that has now lapsed, since de-designation. This policy was also implemented in a multi-tiered government system and all three rural zones (termed in UK literature as 'remote' zones) were in less accessible areas. All three were suffering from economic decline, high unemployment, decreasing population, an aging population, outward drift of the younger population and lower than average incomes.

The three zones studied were Invergordon in Scotland, Allerdale in England and Milford Haven in Wales.

4.4 Central and Local Government Role

Central Government formulated the EZ policy and invited Local Government Councils to bid for the opportunity to implement an enterprise zone within their region.

EZs were very popular with Local Government especially in depressed areas. They generated a lot of interest and a lot of hard bidding. EZ designation was seen, by Local Councils as a good thing for an area, a beacon of investment and potential economic activity. Councils were extremely keen to be able to attach the label "enterprise zone" to their region.

Once an area was chosen the policy implementation was handed to Local Government to administer. Central Government retained an enquiry/information role for potential developers and investors. Central Government also engaged independent consultants to monitor and evaluate the programme during and post designation.

4.5 Australian model

The study of rural UK EZs and the assessing of the long term benefits following de-designation are of particular interest to Australia. A model has been constructed for trial in western NSW. The aim is to rejuvenate a region which has long term depressed social and economic trends. This model is based on socio-economic incentives and regeneration rather than the straight economic model of the UK. It is interesting to note that, post EZ, the UK government has now moved on to seek combined socio-economic solutions, rather than economic only strategies.

The Australian model seeks to use the same EZ framework, that of lowering or removing identified barriers to economic growth, for a set period of time, to trigger an increase in economic activity and development, leading to the commencement of regional recovery.

4.6 Rural Development Trends

The current and future trends in rural development, both in developed and developing countries have the potential to provide an insight into the direction of rural development in Australia and the trends that will directly and indirectly affect rural regions and their communities.

Agriculture appears to be reducing in its status and position as a powerhouse of the economy. Rural development has an increasing status and has become an all encompassing term of which agriculture is only one of many occupations or aspects, in a field that also includes landscape, environment and land use.

Rural development has expanded in a number of directions, many of which have little to do with agriculture and more to do with servicing the people outside metropolitan areas, whether or not they are involved in agriculture. Some of the many areas that now attract attention and dollars are government service delivery and infrastructure, social cohesion, poverty alleviation, urban encroachment, environmental management and lifestyle/wellbeing issues.

5. RURAL ENTERPRISE ZONES UK

The three de-designated enterprise zones which were studied under this fellowship were geographically and culturally quite separate. However, twenty years ago, all three areas were depressed both economically and socially, with high unemployment, a narrow skills base and low incomes. All three areas had poor access and infrastructure. Although in the past, they had been areas of large industry activity, all were now considered 'backwaters'. These areas all recorded a leakage of population, primarily the young, the skilled and the educated. These areas were not on the new investment radar.

In physical appearance, many designated enterprise zones were very similar to industrial/business parks, others made use of derelict areas. However, their aim was not simply to provide a physical place for light industrial business to be situated nor was it an industry clustering process but it sought to lower the business risk environment to induce business establishment and growth.

Specifically, the public sector took on the initial risk for business establishment and expansion that the private sector could not or was not prepared to take up. The public sector was taking on the role of stimulating private investment where market forces had failed to do so. What then was forecast to follow was development through new investment from the market place.

One of the barriers to new investment was the situation where the cost of constructing business premises surpassed the market value of the premises post construction, due to the regional location. Another barrier was the possible time lag between construction and lease or sale of the business premises. Therefore private enterprise was reluctant to invest. What was noted was, once the EZ administration took over that risk, businesses were established (both new and expansion) in the zones.

It was noted that a number of businesses commenced in relatively small business premises and at a later date shifted, either continuing to lease or purchasing outright larger units, within the same region. This move was made due to the new business having taken the step to grow in size. Again the risk inherently involved in a business striving to develop economies of scale, is another potential high risk event as the business fulfils new production and employment targets. A risk often too great in a socially and economically depressed region, it was lowered by the availability of appropriate available premises.

5.1 Causes of Region Depression

The three regions had each been an area of major industry activity and had seen that activity either slowly decline or rapidly collapse. All three areas had previously been dependent on one or only a couple of major industries.

This meant a lot of the skilled workforce had a narrow range of skills. When coupled with a high level of low skilled population, opportunities for employment and education outside of these industries were few. The population drift out of the region was linked to seeking employment and education options not available in the region. This was especially so for the younger and more educated of the region, aiding the trend of an aging population.

With the failure of major industries, job losses occurred and unemployment rose, along with a dependency on welfare benefits in regions that already had generally lower than average incomes.

All three areas gained EZ status due to economic and employment problems. The closure of the aluminium smelter in the Invergordon area was the catalyst for the enterprise zone application. The demise of the steel industry, especially in West Cumbria, saw the Allerdale region bid for EZ status and the reduction of the military presences followed by a decline in the oil industry lowered the Milford Haven region into a gloom and doom mentality.

The Milford Haven/Pembroke area saw a long slow decline, beginning in the 1920's with the commencement of naval withdrawal. This continued again in the 1950's when the Flying Boat base closed and into the early 1980's with the start of the oil refinery closures.

To begin with there was much scepticism, in the wider regions, that implementation of the EZ policy could make a difference. This was not a quick fix solution, as the effect of the EZ on employment, business activity and community confidence was an accumulative one.

5.2 UK Government Policy & Future

More than twenty years after the designation of the first round of enterprise zones, the UK government remains confident that the original principles laid down for the regeneration of depressed areas, still apply today.

> *Increasing levels of enterprise and economic activity go hand in hand with tackling poverty, unemployment and social exclusion. Starting or running a business is difficult enough, but there are additional barriers to enterprise faced by those who live in some of the most deprived areas of the country. This is one of the key reasons for the much lower rates of enterprise seen in disadvantaged communities – just where the need for enterprise is the greatest.*

This quote is taken from a paper entitled *Enterprise Areas* put out collectively by HM Treasury, the Small Business Service and the Office of the Deputy Prime Minister, UK, 2003.

UK government intended a broad based approach to tackling disadvantage by addressing barriers to economic activity and so encourage bigger flows of private investment.

Actual Incentives Offered

The following incentives were available, for the period of the designation of the zone, to both new and existing businesses in an Enterprise Zone.

- 100% capital allowances on industrial and commercial buildings.
- Exemption from the Uniform Business Rate on industrial and commercial property.
- A greatly simplified planning regime.
- Statutory controls remaining in force were administered more speedily.
- Employers were exempt from industrial training levies and from the supply of information to the Industrial Training Boards.
- Certain customs facilities were processed as priority
- Government requests for statistical information were reduced.

Enterprise Zones: Their Main Features, Published by the Department of Environment, Transport and the Regions (DETR), 2000.

(For a fuller description see Appendix)

5.3 Long Term Benefits

Effect of EZ areas on the Wider Region

There were two major effects on the region surrounding the EZ areas. One was the attraction of investment into the EZ areas and the region. The second was the increased business capacity of both businesses in the EZ areas and businesses in the region around them.

Far from creating a negative stigma, EZ designation drew investment attention to the area and created positive interest. Opportunities were also recognised outside the EZ areas but in the same region. Because of the attention to the EZ region these opportunities were taken up even though they were outside the EZ and without EZ specific benefits.

Far from disadvantaging the area outside the zone, as has also been reported with some urban EZs, these rural areas appeared to gain significantly through the flow-on effects of the investment attention received by the zones themselves.

The second benefit is an increase in business capacity. EZ activity in the zones increased the volume of business for some entities neighbouring the zones. This meant money was kept in the region and also assisted in bring outside money into the region. For example some tradesmen, such as mechanics, saw their established businesses, although located outside the zones, grow due to new economic activity within the zone.

This growth was accomplished without EZ incentives, due simply to the flow on effect of the increased activity generated by business growth in the zones.

It has been recognised that there was a significant flow-on affect to the area, through an increased take up of local goods and services so that even businesses that do not/can not take up the specific incentives can benefit from the EZ structure.

Diversity

It was felt that diversity was the key to the economic success. The EZ mainly helped small business but did help a few big companies. Success was in assisting a range of business, not backing one industry, as was the situation prior to EZ designation, in the region.

A senior Development Manager, who worked in economic development during the designation period of the Invergordon EZ and continues to do so today in the Highland and Islands region, concludes that "an increase in diversity has delivered a more robust economy than was present 30 years ago".

The Allerdale council feels strongly that the economy is now more robust because it is more diverse. If the region loses an employer this is buffered by the diversity and it is not anticipated, that such losses would cause the situation to revert back to pre EZ conditions.

> "Workington EZ has been of enormous benefit to the Allerdale region and the investment it has attracted over the last decade has transformed the local economy from being almost entirely dependent on the steel industry to a more balanced and diverse economy."
> 9th Year Monitoring Report – Zone Position as at October 1992

The Allerdale region is still strongly manufacturing orientated but it is not as significant to the region as it was. At the end of the EZ period, manufacturing made up 23% of the economy, in 1983 it was at 39%. This was a drop of 16% over the 10 year period of the EZ. The diversity that commenced under the EZ has continued. Currently there are only a few large scale employers, so the risk of industry downturn is not as big a threat to the regional economy as it was in the past. There has been an increased portion of service and retail businesses giving a more balanced economy.

Currently unemployment is decreasing in the Milford Haven region. This is put down to greater diversity in the economy, which provides a buffer, as different businesses and industries go through their life cycles. Greater diversity has also encouraged and supported entrepreneurship in business. Business establishments are high and although the high proportion of jobs affected by seasonality was a problem in the past, tourism has consolidated and is now a more professional and sustainable industry.

Diversity has delivered a more robust economy in each of the three rural areas.

Investment Beacon

A Development Manager, who worked with the Invergordon EZ from its conception, believes that "the best benefit [from the EZ] was it was a great opportunity to create an awareness of the problems and positive opportunities." Problems weren't seen as limiting investment.

Another significant benefit was the attention drawn to the area by EZ designation. This was felt, by both business and administration, to be a major benefit. It not only stated the problems upfront but also gave a focus to the opportunities available. A company looking for a workforce knew this area had people available, it knew what assistance it would receive and what assets the region held that could complement and assist their business.

The government had shown by its actions (EZ designation) that it had confidence in this area as having potential for increased economic activity. This confidence was of value to businesses and the region.

Employment

Invergordon EZ Annual Review Report – October 1993 shows that 770 jobs were created directly, with many more indirectly created. More than 60 businesses were established, with further businesses benefiting in the region. Some sites/employers employed 1, 2 or 3 people, whilst some employed 40 to 45 people. However, approximately 46% of employers employed less than 5 people.

The Invergordon region's employment trend is now positive. Unemployment gradually dropped over the period from 26.6% in 1985, to currently having an unemployment figure lower than the national Scottish average, for the first time in employment data recorded history. EZ had a significant effect on the employment big picture.

Allerdale prior to the EZ designation had approximately 16% unemployment. Currently it has a 2.7% unemployment figure. There has been a steady drop, post EZ, over the last 10 years.

In the Milford Haven region, unemployment has been decreasing since the EZ period. This has been put down to the greater diversity in the economy providing a buffer as different businesses and industries go through their business cycle. However, the region is still a black spot and unemployment appears to trend up and down with the National movement.

All three rural EZs showed that 65% - 75% of total employment was male. Also that 85% - 95% of total employment was full time employment. In all three areas the percentage of female participation in paid employment was greater after the EZ designation period than before EZ designation. (PA Cambridge Economic Consultants, *Final Evaluation of Enterprise Zones*, London HMSO 1995.)

Partnership

The Central Government formulated the EZ policy and then handed over the administration to the successful Local Government Councils to be implemented. There appeared to be no real partnership established between Local and Central Government within the Enterprise Zone structure, initially.

However, the EZ drew all local departments and agencies, within the region, together with a common focus. It enabled different schemes and grants to be offered as a combined package, not officially joined but this occurred

practically, due to personnel of each department and agency working together and having representatives on the EZ committee, so that the knowledge was interchangeable.

The Allerdale EZ administration looked at social issues as well as the economic ones. Often a region's social issues, as well as economic ones, were able to be better recognised and appreciated due to the cross section of personnel and organisations on the EZ boards. It was the multi agency representation on the EZ boards that assisted in a clearer picture of the needs and also cemented the benefits of constructed partnerships that continued, to great benefit, after the EZ period.

The creation of such partnerships benefited the whole region. The strong focus on economic activity meant these partnerships continued post EZ. This close partnership has continued to make economic development delivery by government much more efficient and effective on the ground.

Income

Allerdale had one of the lowest pay rates in the country, now it is close to the national average.

The Milford Haven region has, over the last 20 years, made inroads into unemployment but it still has amongst the lowest wages in Britain. It is predicted that as labour availability shortens, wages will increase. It is foreseen that this will also assist in bringing back more people with skills.

Population Movement

The Milford Haven region is starting to see the return of people who previously left the area, coming back with young families. The two main reasons are the ability to be in business and have an attractive and affordable lifestyle.

Both the Invergordon and Allerdale regions are predicting difficulty, in the near future, in filling the staff requirements of companies looking to set up in the region, due to a lack of available labour. This is an enormous turn around from the pre-EZ high unemployment.

The population drift has slowed in the Invergordon region and an inflow of eastern Europeans has developed, moving into the region and taking up employment opportunities.

Social Issues

In the Invergordon region the knock on effect, of increasing employment, saw a decline in social problems in previously depressed towns, like Alness. After the closure of the smelter Alness became very much a social security town with large social problems, drugs, alcohol etc. With the economic activity and rise in employment there was a change of attitude by the people and businesses.

The community took on board the opportunities available to them and got involved. One notable feature was the change in the main street. The community, rather than the council as often is the case, took and is taking responsibility for the upkeep of the main street. This town has currently one of the most charming main streets in the UK.

The increase in local employment led to an increase in local area spending, giving rise to a more positive economy.

Allerdale, prior to the EZ designation had high female unemployment as well as health, housing and education issues. The EZ indirectly increased investment in housing and raised health standards. People invested their increased household income in themselves, their houses and their children. It raised aspirations by bringing in more money and employment into households.

The positive impact of EZs showed sustainability, after de-designation, as businesses tended to stay. This sustainability enhanced economic activity and the social environment of the region.

Catalyst

Even though further economic development has occurred after the EZ period it was felt by most involved during designation and those currently involved, that the Invergordon EZ was the catalyst to the current economic activity.

The Allerdale EZ highlighted the awareness of "development" and how it impacted not just in the EZs but in the surrounding region positively. Those currently involved in economic development felt that the EZ was also the catalyst for the economic development that came after it. The EZ focused attention on the needs. It drew investment into both the zone and to areas outside the zone, something that market forces had failed to do.

As one Manager from the West Cumbria Development Agency described it "the Allerdale EZ did transform West Cumbria. Without the kick along we would still be in the same position as 1983 or worse."

The Milford Haven EZ was seen as a catalyst for more diverse economic activity and the focus for a wider strategy for the region.

5.4 Shortcomings

The EZ framework provides a catalyst for positive growth and a better social environment. It does not hold all the answers to all problems. As such there are weaknesses, as well as, strengths. Some of the identified weaknesses are:

- The multi-tiered partnership between the Local and Central Governments did not exist in the first stages of the EZ designation however, on a local level strong sustainable partnerships did develop.

- The EZ policy, implemented in different regions, did not have a uniform effect on raising income levels.

- Invergordon's designation coincided with other funding for infrastructure, roads, bridges and sewage. This undoubtedly enhanced and assisted the activities in the region around the EZ.

- Although significant decreases in unemployment were evident in the regions and this trend has continued post EZ, the degree of the decline was not uniform.

- All three local administrations put in for an extension of the EZ, after the ten year period. It would appear that towards the end of the designation period confidence in the long term benefits was not high. However the outcome of a more diverse and sustainable economy seems to have alleviated those fears.

- The Simplified Planning Zone Scheme was adopted in the Invergordon region post EZ, in order to "maintain the momentum of the EZ once it had finished by encouraging new business and stimulating employment in the area." Again this statement would appear to give the impression that there was the fear that once the EZ incentives finished so would the momentum.

  Perhaps at the time there was not a lot of confidence that there would spring enough long term benefits or that there would possibly be a lag between EZ de-designation and the long term benefits or momentum kicking in. This lack of confidence was proven, in the long term, to be misplaced.

- The region was sold as a clean, air and water environment, an all round nice place to live. These points did help, however the big questions asked by incomers were about schools, hospitals and connections to rail and air.

- A major criticism of the UK economic only incentives policy was that it did not include a social aspect.

5.5 Lessons Learnt by UK

Social Issues

In hindsight, the UK EZ policy was recognised, by Central Government, as not being effective with the social issues that should be a part of any economic improvement strategy. The EZ policy was aimed at just drawing in developers to an area by presenting 10 years of incentives. The UK policy was solely economic development focused.

Now Central Government recognises that there is a need for the social side to be addressed as well as the economics. However, Local Government recognised this and included social objectives within the EZ aims and strategies when implementing them.

It was recognised that attention to the economy couldn't be done in isolation, especially in the rural areas. These rural areas had social issues which became part of the focus.

Currently, the UK government is looking at social and economic issues as a mix, having recognised that they go hand in hand and need to be tackled together.

Government Issues

Central Government currently feels that EZs have done the job they set out to do but now there was a real need to move onto other strategies, specifically socio-economic.

Also complications became apparent with the implementation of new EZ areas and restrictions or agendas expected by Brussels. The current EU bureaucracy now makes EZ designation complex and time consuming.

Administration Issues

How well zones were developed by regeneration partners was particularly important to their success. Success itself was dependent on administration of the zone. The focus, marketing and pro-activeness of the administration were particularly critical to zone success. It didn't all just happen because of zone designation.

Marketing of the zone is very important. EZs were a powerful marketing tool for a region even though the physical zone only covered a small proportion of the region.

Business and Investment Issues

As pointed out in the *Final Evaluation of Enterprise Zones* (PA Cambridge Economic Consultants, London HMSO, 1995) the EZs were not designed to attract long distance businesses. EZ incentives on their own were not proposed as geographical movers.

The best zones had an idea of what they were trying to achieve beforehand.

The waiver of local business rates and the capital allowance were seen as two powerful economic incentives.

The unsung success story was the new investment that was brought into the regions, which otherwise wouldn't have been there.

Approach Issues

The view that one block, already set up to go, serviced and having the required infrastructure, was a better implementation than scattering the zones in 4-6 pieces throughout an area, is a collective view of the evaluation of a number of EZs covering all three types urban, accessible and remote.

If an individual zone view is taken, the rural zones saw more benefits, for the region as a whole, with multiple zone sites. This enable, a spread of the benefits geographically. Both views are valid depending on whether the view point is UK EZs as a collective mass or an individual rural EZ view of structure, consequence and benefit.

Governments utilising the EZ framework need to think long term as EZs are a long term vehicle.

EZ policy produced a more powerful catalyst package when used with other incentives and programmes currently available.

What Invergordon Learnt:

- "[The] zone is a regional and not just a local asset"

What Milford Haven Learnt:

- "[A] long term view is needed for regeneration as shown by the first work on the Pembroke Docks now coming to fruition 20 years on."
- The importance of good partnerships.
- Regeneration should be long term. The need to implement strategies whilst maintaining a vision and the importance of not allowing short term pressures to dilute it.

5.6 Applicable to Australia - Removing Business Impediments

The Fellowship seriously looked to see if lowering the barriers that are preventing business establishment and expansion produced long term benefits for the region.

Different barriers will be identified for different regions and economies. Twenty years ago, the UK saw the barriers as economic only. Two barriers perceived as significant were capital investment versus the post construction asset value and the red tape (bureaucracy) involved in development. In depressed rural Australia many of the regions' barriers have been identified as being socio-economic in nature.

Each enterprise zone uses a similar framework. That is, through dismantling the barriers that prevent economic growth, the EZ lowers the business risk environment, for a set period of time, so that private investment can establish new businesses and business expansion, creating more jobs, in a set geographical area. This is not done as an end in itself but as a means of being the catalyst for the rejuvenation of a depressed area. The ultimate goal is to raise the quality of life for those living in the region.

It was never envisaged that a UK model would be used in Australia. It is envisaged that a framework that gives long term benefits to a depressed rural area will be trialled using an Australian model. It was, therefore, always important that foreseeable long term benefits were able to be identified as probable outcomes.

As pointed out by several people involved in economic development in the three rural regions studied, the public sector exists to fill in where the private sector falls down or does not take up the initiative. Public sector involvement is necessary for when market mechanisms fail to fire.

The Australian national employment figures are currently rising. However this is not necessarily the case in many rural areas. Another national average which is on the increase is quality of life as indicated by average earnings. However in many rural areas the quality of life is and has been declining along with other social and economic indicators (Vinson T., *Community Adversity and Resilience*, Jesuit Social Services, 2004). The national figure is an average and as with all averages there is the danger that individual sections will be overlooked and forgotten as the big picture is viewed.

For depressed rural areas with declining socio-economic trends there is an urgent need for action. The investigation and trial of mechanisms of real potential cannot be ignored.

5.7 Conclusion

The aim of the UK Government was to lower the business risk environment so business activity, be it start up or expansion, became viable for private investment.

The UK Government's aim was *'to tackle disadvantage by addressing the barriers to economic activity and opportunity for all',* as stated in a paper put out collectively by HM Treasury, Small Business Service and the Office of the Deputy Prime Minister, entitled Enterprise Areas - Tackling barriers to enterprise in our most disadvantaged communities.

It was constantly pointed out, during my visits, that the goal of market forces being that of maximizing profit and the goal of the economic development of new business are not compatible in an adverse environment which is socially and economically depressed. Simply put market forces will move the activity elsewhere.

EZs are a mechanism used in depressed regions. All three rural zone regions investigated, were in less accessible areas. All three were suffering from economic decline, high unemployment, decreasing population, an aging population, outward drift of the younger population and lower than average incomes.

The benefits accruing to EZs were of an accumulative nature with long term benefits also flowing to the wider region. The EZs created a focused effort, which lead to regional strategies and partnerships between economic development organisations.

The ability to promote the area as an EZ was a material benefit. It identified and demonstrated the positives of the area, the government confidence for economic growth of the area and it became an investment beacon.

It has been recognised that an increase in business expansion and establishment will give a significant flow on affect to the area through an increased take up of local goods and services, so that even businesses that do not/can not take up the specific incentives still benefit from the EZ structure.

The increased business activity produced diversity which in turn, produced a more robust economy, better able to weather future economic downturns.

EZ was not all the answer but was shown to be a successful catalyst which stimulated ongoing activity.

Nor was EZ perfect in all aspects. Some of the shortcomings recognised by this study were the lack of partnering between Central and Local Government, the increase in income levels was not uniform over three regions, the decrease in unemployment not uniform over the three regions and there was a need to include social issues rather than economic only incentives.

The lessons learnt were important ones for rural EZ regions. Good partnerships are important. The social and economic issues of a region affect each other and so both need to be included. The zone administration needs to be proactive and focused. Much of the increased businesses activity was promoted from within the region, few firms physically moved into the region.

Importantly, EZ was a regional asset, not just a zone asset, with a positive flow on effect that spread wider than the zone boundaries.

Probably the most important lesson to be learnt was the need to take a long term view. EZ benefits were produced by an accumulative result.

6. CURRENT AND FUTURE RURAL DEVELOPMENT TRENDS

This part of the study is not meant to be in depth and all encompassing but an indication of trends outside Australia, through personal discussion with those involved in research, development and on ground projects. Therefore what is presented below is a representation of discussions with a variety of academics, researchers and practitioners all of whom currently work in rural development areas. These areas range from poverty reduction to agricultural economics.

The subject of rural development trends deserves an indepth analysis in its own right and the following makes no pretence to accomplish this. It is an attempt to learn from people currently and intimately involved in a number of rural development areas and to learn from them and their experience how this important sector may be changing and evolving.

6.1 Developed Countries

It is generally recognised that rural and agriculture are being split from a government perspective. Rural is becoming an all encompassing term for non-metropolitan. Agriculture has become a narrow term and occupies only one of the many categories within rural development.

Currently in the UK between 1% and 2% of the population is employed directly in Agriculture. Only 10% of the population, in most UK rural areas, is directly employed in agriculture. Agriculture is being overshadowed by landscape and environment and a push for economic diversity in rural areas.

Rural areas, in the UK, are increasingly becoming privatised (private residential areas), often through the purchase of a second investment home, weekender or home based-business. The 'outside' consumer is usually buying privacy and/or lifestyle. The land is being purchased for reasons other than agricultural use and the consumption of land is competing with the productive use of the land.

There are some acknowledged positive aspects, such a trend may produce. It has been suggested that it may assist in maintaining public services due to maintaining population, even if the activity is not agricultural, if 'incomers' make a permanent move into the region, for example e-based businesses. In this respect, diversity is seen as a good thing that should be promoted in rural areas. That a more diverse economy tends to be more robust.

However, the negative consequences of such a trend have also been noted. That the trend may lead to a diminishing public service if 'incomers' are weekenders, contributing to a loss in full time capacity. The purchasing of a second home by 'incomers', without dependent children, means that the use of services, especially schools are decreasing. Also the cost of housing often increases to a point where the 'locals' of the area can no longer afford to buy in the area.

A counter to this is that 'incomers', even retired ones, may not contribute to child support services but do in fact help to maintain a capacity for services in other sectors such as health.

Diversity appears to have not only brought in new business types but also may encourage part time farming. The part time farmer is becoming socially important in the UK and although environmentally and socially important, part time farmers may not be as efficient, from a productive aspect.

It is however obvious, through the discussions, that agriculture is losing its previous high status as a major portfolio in government. This appears to be due to two aspects, the decline in the percentage of the labour force directly and indirectly involved in agriculture and the decline in the percentage of GDP that agriculture represents. Also there has been an increasing awareness of the many aspects that contribute to the rural sector. Many of these aspects now command the attention of the public and a consciousness that the community as a whole, represented by government, sees issues that they would like addressed, outside of agriculture but still in the rural sector.

Multifunctionality, a relatively new term, has arisen to endeavour to detail the value of agricultural pursuits as part of rural development, over and above agricultural productivity. Some descriptions of multifunctionality are:

- The collective public good of farming.
- The social benefit from farming.
- The place that agriculture holds in society as a backdrop rather than an industry activity. For example, farmers in the Lakes District have been described as gardeners because their main function is seen by some to be primarily that of keeping the landscape looking nice and as the rest of society, mainly urban, would expect it to look.
- Maintain the landscape that is wanted by the wider community (nation).
- For such a role the wider community (nation) may have to pay for this collectively (subsidies, taxes).

The fact that this word is now used freely in relation to agriculture again suggests that agriculture has lost its previous high status and is being downgraded from an important sector in its own right to being only one, of many activities within rural development/environment.

For example, hill farmers, in the UK, financially need a subsidy to maintain a viable net income. This is where "multifunctionality" comes in. This concept suggests that if society wants to see hill farming remain as a feel good, see good landscape then society should pay the cost.

However, if subsidies are to come from taxes and not consumption (higher prices for product), then this provides a justification as to why tax money should be going to farmers. This notion could be defended by multifunctionality, farming being more than the economic production of goods but a community service. There are, however, dangers with this argument.

A discussion then arises as to why this money should not go to hospitals or education, which are also for the community good.

Environment farming, that is, farming as a way of maintaining the landscape and wildlife habitat is becoming more than a trend, especially in the upland areas. It is becoming accepted as part of rural development.

6.2 Developing Countries

It appears from discussions that a decline in the prominence of agriculture may also be a prevailing trend, in developing countries. Although some discussions preferred to highlight the trend as an increase in the prominence, of other rural development aspects, rather than a decreasing prominence of agriculture.

Wherever the emphasis is placed, this trend is being linked to globalisation. The World Bank is promoting diversification within rural development and this promotes an increase in the attention given to other aspects of rural development. Several discussions noted a declining trend internationally in the dollars for research and development in agriculture, though not necessarily for rural development.

The argument was put forward that, in developing countries, it is often politics and policy, living standards and personal security that effects people's survival and sustainability as much or more than the simple production of food and products. However, whether diversification is good or not is an ongoing policy debate.

Currently the concept of sustainable rural livelihoods is used to understand people's lives and then, where possible, uses policy opportunities to make a difference. Instead of starting with recognition of the desired outcomes and working towards them, sustainable rural livelihoods is used to understand people's lives from a governance point of view. It starts with what do people do, how do they do it and what do people have.

This is a governance or policy tool. The premise being that if the policy is right, the rest will follow. It holds out to be encompassing all facets and is seen as a more holistic approach.

The pure market based approach is seen as not working effectively. The market approach is not considered by many as appropriate, or effective, as it has a different target to a quality of life approach. If rural development has as a goal, that of increased quality of life within a sustainable environment, then the market may not be the instrument to reach the desired end result.

Another view discussed was the perception that individuals require more than a single track response. However the more intensive approach of 'hand holding' although giving effective on-ground results, is expensive both in time and dollars. This approach involves a closer, more direct approach.

Following on from this is the approach, is the recognition, that poverty reduction, within rural development, needs target based projects for on-ground results. Agriculture may or may not be a part of poverty reduction. There are economic opportunities but these must be focused and targeted. This approach has been shown to work but is slow. It is effective but there are few political points in such work.

Rural development has taken on a new importance. It is more and more commonly mentioned in relation to the World Trade Organisation and non agricultural activities. However, there is an uneasiness with this trend. It has been suggested that serious problems may arise in the future, if in the growth of the many aspects of rural development, attention to the productive sector, agriculture, elapses.

6.3 Conclusions

Agriculture is losing its status and position as a powerhouse in the economy, both in developed and developing countries. Rural development is increasingly pushed on by diversity and a greater recognition, than in the past, of what aspects contribute to make up the rural landscape and its functions.

In developed countries economic diversity and multifunctionality are seen as being as much a part of the rural landscape as agriculture. In developing countries diversity recognises the multitude of factors that affect both individual and national survival and sustainability.

The status of rural development is increasing. It is an all encompassing term of which agriculture is only one of many factors, in a field that also encompasses landscape, environment, land use, lifestyle and survival.

Agriculture, as food and fibre production, has a declining association with development in a rural economy, in both Britain and Western Europe, as well as in developing countries. This movement is affected by multi factored issues, both internal and external. One major factor in developed countries is lifestyle, whilst in developing countries it is also lifestyle but more basically survival and sustainability.

Both in developed and developing countries agriculture is losing its place centre stage. Governance, policy, environment, landscape, diversification as well as other rural development components are all rising in status. These are all valid areas and require advancement but the danger is that in doing so the productive aspect of agriculture is downplayed or worse ignored.

7. RECOMMENDATIONS AND DISSEMINATION

7.1 Recommendations

1. Due to the narrow reporting of enterprise zones within Australian literature and the lack of knowledge, at some levels, of the breadth of the enterprise framework (especially in regard to rural enterprise zones) it is recommended that this report be disseminated to the relevant parties locally, regionally and nationally (see 7.2 Dissemination).

2. This report found that long term benefits flowed from the ten year EZ designation period, in the UK and acted as a catalyst to stimulate a rejuvenation of the three areas studied. It is recommended that an Australian trial or trials be conducted in depressed rural areas to determine the extent to which enterprise zones may offer lasting and measurable benefits and to ascertain their use to stimulate the rejuvenation of socio-economically depressed rural areas.

7.2 Dissemination

- Verbal summary reports were presented in December 2004 to the Shire Councils of Central Darling, Bourke, Brewarrina, Walgett and Coonamble as well as the Murdi Paaki Regional Council of ATSIC. All these organisations lie in western NSW and are members of the Barwon Darling Alliance, my employer.

- A verbal summary has also been presented to a Sydney meeting attended by peak organisations in the social services, business and agricultural sectors.

- Media - a local western NSW newspaper interview was conducted in December 2004 as was a state-wide radio interview. Further media interviews are possible in the coming year.

- The report will also be distributed to targeted government and opposition positions at a local, state and federal level. The report will also be distributed to key industrial, business and social sector bodies.

- Presentations will also be conducted, in western NSW and other regions where it will be relevant, for community organisations such as Chamber of Commerce, Progressive Associations and Indigenous Community Working Parties.

8. APPENDIX

UK ENTERPRISE ZONE INCENTIVES

1. 100% allowances for corporation and income tax purposes for capital expenditure on industrial and commercial buildings.

2. Exemption from the National Non-Domestic Rate (Uniform Business Rate) on industrial and commercial property.

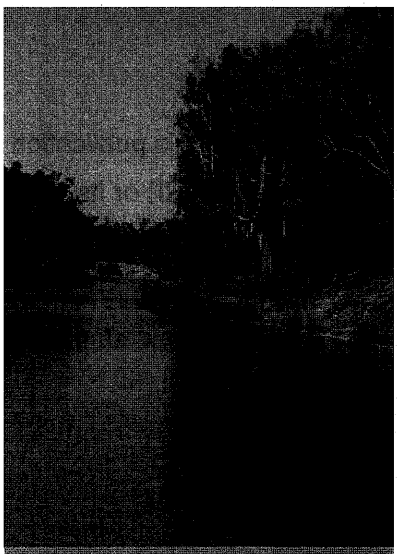
3. A greatly simplified planning regime;
Developments that conform with the published scheme for each Zone do not require individual planning permission.

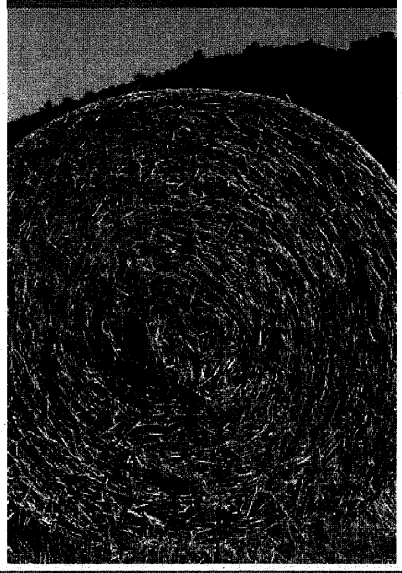
4. Those statutory controls remaining in force (eg planning) are administered more speedily.

5. Employers are exempt from industrial training levies and from the requirement to supply information to Industrial Training Boards.

6. Applications from firms in EZs for certain customs facilities are processed as a matter of priority and certain criteria relaxed.

7. Government requests for statistical information are reduced.

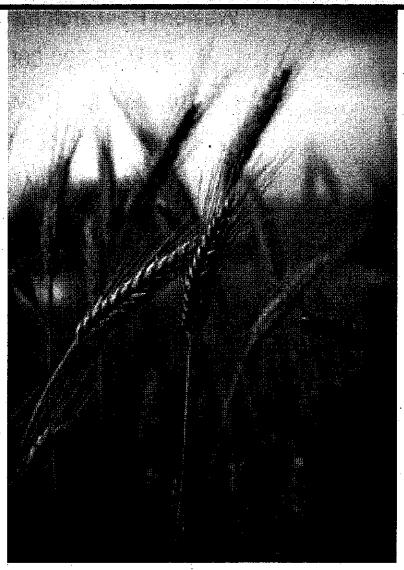




2008 BARWON DARLING SOCIO-ECONOMIC ZONE MODEL

Prepared for: Barwon Darling Alliance

By the Western Research Institute



21st January, 2009

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EXECUTIVE SUMMARY

The Barwon Darling region has become considerably more disadvantaged since 2001, with much of the decline in counterpoint to otherwise state wide growth patterns. Without an initiative of some form being implemented, it is expected this slide will continue into the future. As such, the adoption of a socio-economic zone, in conjunction with other programmes, is likely to have a positive impact when it comes to improving the welfare and social situation of the people of the Barwon Darling region.

The general rationale for socio-economic zones is to promote employment growth (especially for targeted groups such as indigenous persons and the long term unemployed) and to increase business investment. However, the specific rationales for the implementation of a socio-economic zone in the Barwon Darling region are:

1. To achieve restructuring that will promote the long-term sustainability of the Barwon Darling region.

2. To alleviate the relatively high levels of economic and social disadvantage in the Barwon Darling region compared to the average for a New South Wales community.

3. To address the perceived failure of the existing framework of development policies to tackle the structural and long-term development problems of the region.

4. To address the failure of the free operation of the market to generate economic development and to provide social opportunities such as a good quality education and employment for indigenous persons and the long-term unemployed.

5. To allow the Barwon Darling community to form a stronger partnership with government to promote economic development in the region.

A Socio-Economic Zone Index (SEZI) measure was reapplied to the individual Local Government Areas (LGAs) and the Barwon Darling region as a whole using updated 2006 census data. In comparison to 2003;

- The LGA of Bourke saw a significant decline and now qualifies for disadvantaged status under the SEZI score system; and
- The SEZI score for the Barwon Darling region as a whole has increased indicating further disadvantage compared to the rest of NSW.

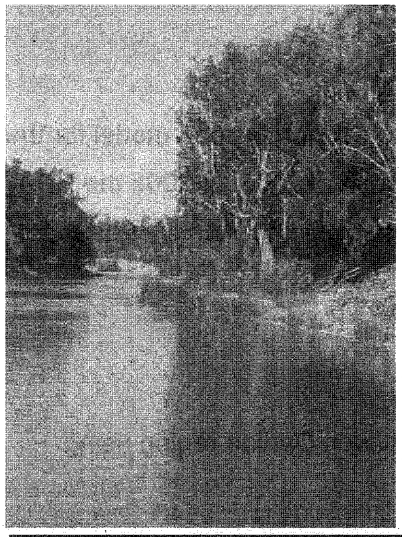
Shift share analysis has indicated that between 2001 and 2006;

- Total employment fell by 1,393 jobs;
- Increases were in the health and community services sector, followed by electricity, gas and water supplies, education, and cultural and recreational services, predominantly as a result of state wide growth trends and industry mix components; and
- Greatest declines occurred in agriculture, forestry and fisheries, followed by retail trade, wholesale trade and manufacturing.

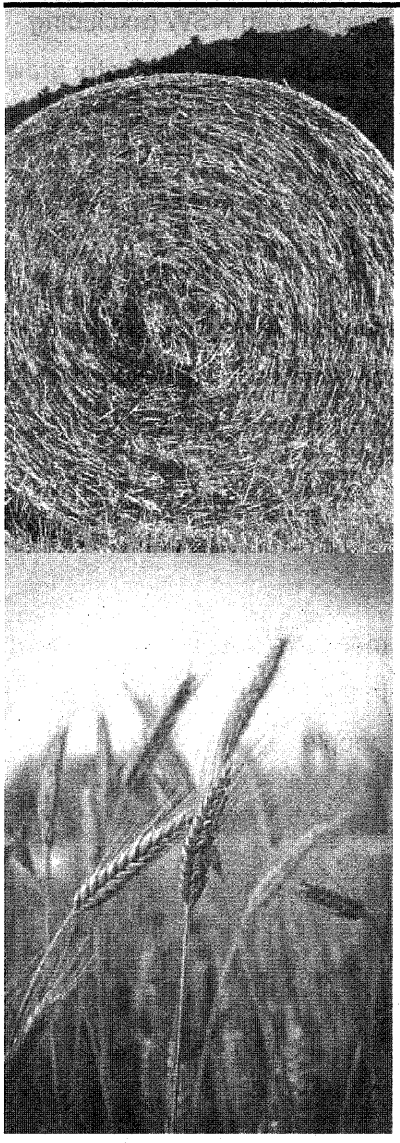
It would appear that the greatest negative impact for employment in the region is local factors, positively impacting on only two industries, electricity, gas and water supply, and cultural and recreational services.

Using Input Output techniques, a comparison of the economic impact of both the Barwon Darling region and a socio-economic zone between 2000-01 and 2006-07 indicates;

- Gross regional product has declined between 2000-01 and 2006-07 by some 39% to $364 million;
- Household income has fallen by 22% to $196.1 million;
- Average household income has risen due to shifts in industry employment away from low paid positions in agriculture, retail and wholesale trade, and manufacturing;
- A socio-economic zone, should one be established, would be expected to cost $5.9 million per annum to run and maintain; and
- The impact of such a zone on gross regional product would be slightly higher than that estimated for 2000-01 at $26.2 million and would be likely to boost household income by some $14.1 million through the creation of 421 new full time equivalent positions.



Introduction



1 INTRODUCTION

1.1 Project Background

The Western Research Institute (WRI) first developed a socio-economic zone model for the Barwon Darling Alliance (BDA) in 2002, which was then updated in 2003. In 2008 the BDA commissioned the WRI to update the socio-economic zone model with recently released 2006 Australian Bureau of Statistics Census data.

Project objectives are outlined below:

- Measure economic and social disadvantage in the Barwon Darling region using Socio-Economic Zone Indicators (SEZI).
- Compare industry performance in the Barwon Darling region with NSW (excluding Sydney) utilising shift-share analysis to account for state-wide growth, industry growth and local factors.
- Estimate the economic impact of the Barwon Darling socio-economic zone policy in terms of employment, household income and gross regional product.

Using comparable methodology and assumptions as in The Barwon Darling Enterprise Zone report of 2003, this update is intended to be read in conjunction with that earlier report and to allow comparison of the shift in economic standing of the region over the intervening time period.

1.2 Barwon Darling Alliance

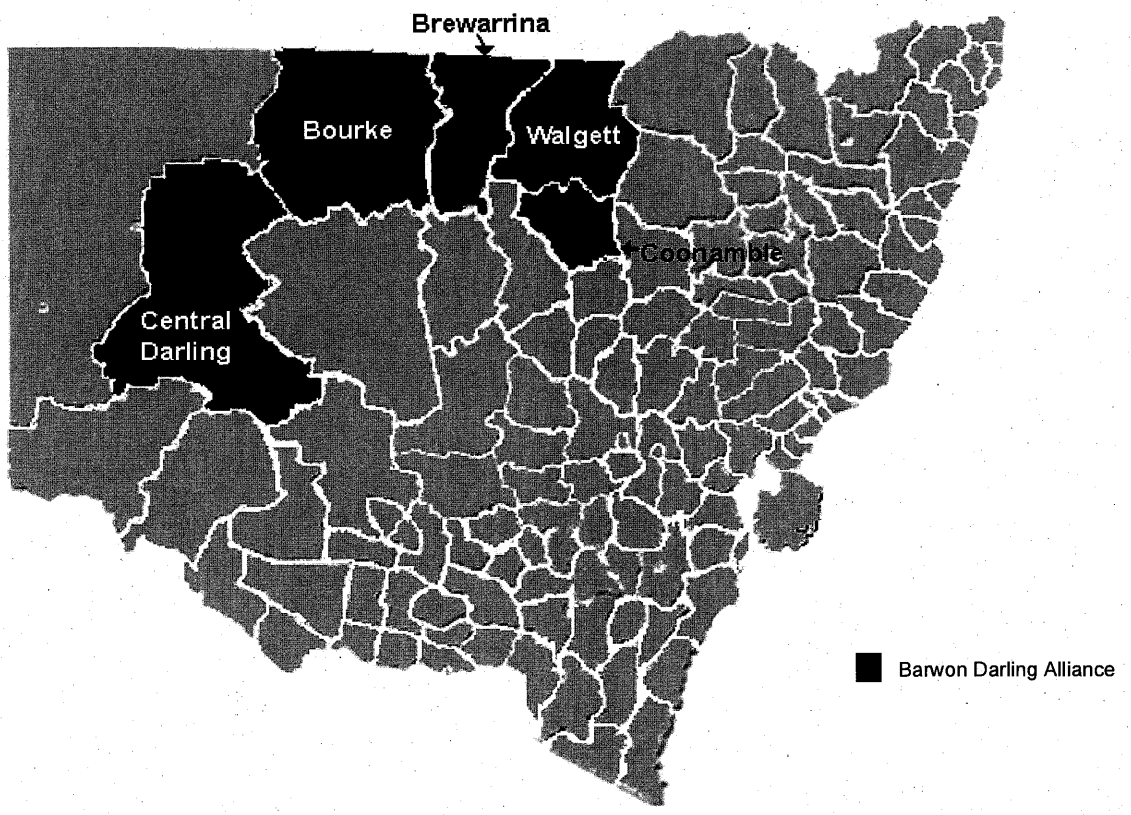
The mission of the Barwon Darling Alliance is to combine its members' resources to support and maintain sustainable economic growth and employment in the region and to develop positively the social capital and the lifestyle and culture of its people.

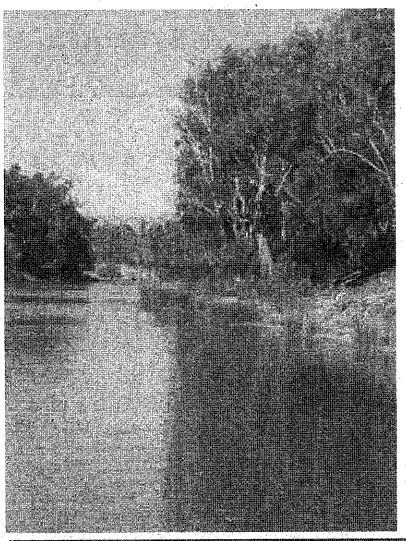
The Barwon Darling Alliance consists of:

- Murdi Paaki Regional Assembly
- Bourke Shire Council
- Brewarrina Shire Council
- Central Darling Shire Council

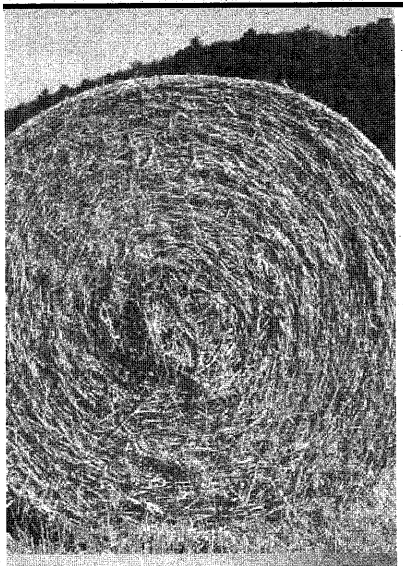
- Coonamble Shire Council
- Walgett Shire Council

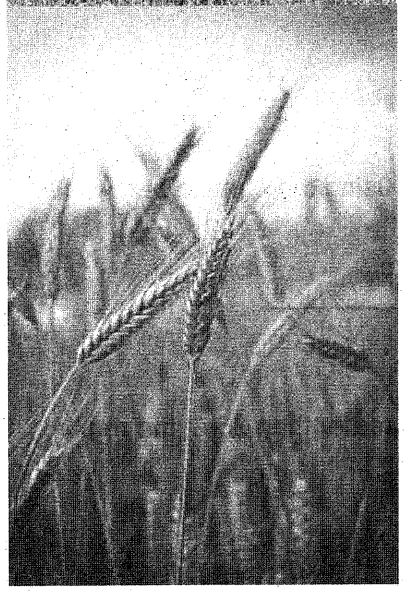
Map 1: The Barwon Darling Alliance in Relation to NSW as a Whole





Methodology





2 METHODOLOGY

2.1 Socio-Economic Zone Index

The Socio-Economic Zone Index (SEZI) compares socio-economic factors in one geographic region to a benchmark area to determine disadvantage. In this report, the benchmark is New South Wales as a whole.

There are 10 socio-economic factors:

- unemployment;
- long term unemployment;
- Aboriginal and Torres Strait Islander unemployment;
- youth unemployment;
- employment growth;
- household income;
- poverty;
- qualifications;
- age; and
- gross regional product.

Each factor is compared between the Barwon Darling and NSW using the formula below:

$$\frac{\text{Barwon Darling Figure} - \text{NSW Figure}}{\text{NSW Figure}}$$

Where the difference between the Barwon Darling and NSW is greater than 25%, the region is ruled as disadvantaged in that socio-economic factor.

Each Barwon Darling region is assigned one SEZI point for each disadvantage ruling. These points are summed across the 10 factors to determine the level of disadvantage in each region, and the Barwon Darling overall.

2.2 Shift Share Analysis

Australian Bureau of Statistics employment figures were used to gauge growth or decline in these regions industries between the census years of 2001 and 2006. A shift-share analysis determined what portion of this growth or decline was as a result of:

- growth of the NSW economy;
- growth of each industry; and
- growth attributable to factors unique to the Barwon Darling.

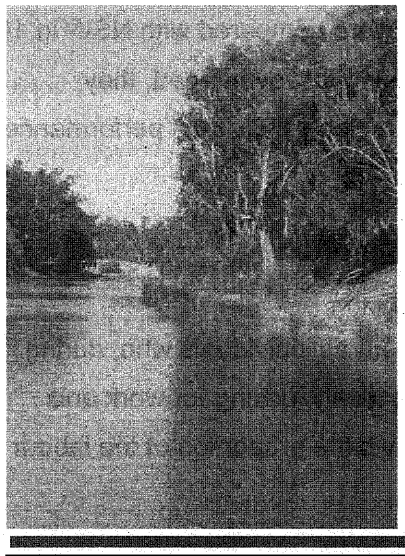
A technical explanation of shift-share analysis is included in *Appendix 1: Shift-Share Methodology*.

2.3 Impact of Socio-Economic Zone Model

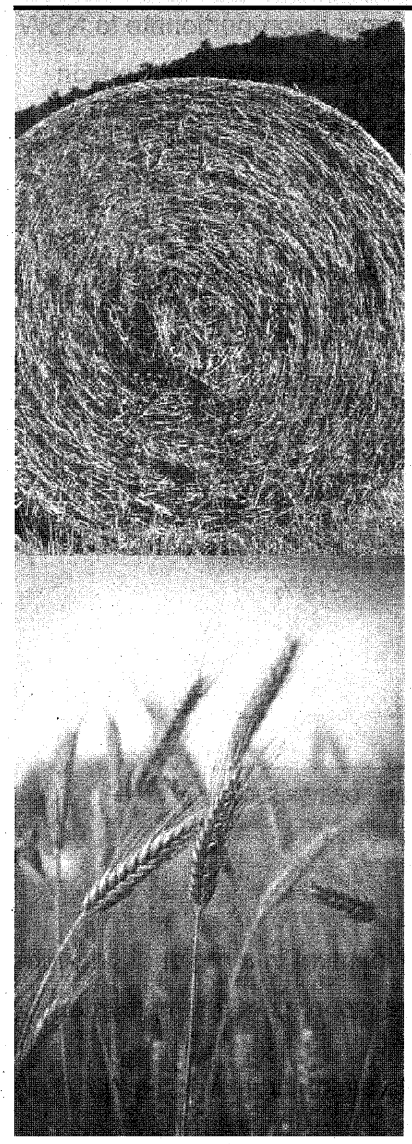
Australian Bureau of Statistics 2006 census data adjusted by Department of Education, Employment and Workplace Relations (DEEWR) 2007 employment data was used to create Input Output (IO) tables for the 5 individual LGAs, the Barwon Darling Alliance as a whole and NSW.

Analysis of the results allowed a comparison of Gross Regional Product (GRP), Household Income and Fulltime Equivalent Employment (FTE) with those of the 2003 report as well as a projection of impact should a socio-economic zone be created in the region today.

A detailed explanation of Input-Output methodology can be found in *Appendix 2: Input-Output Methodology*.



Socio-Economic Zone Analysis



3 SOCIO-ECONOMIC ZONE INDEX

Walgett, Coonamble, Brewarrina, Central Darling and Bourke were compared with NSW in 10 key socio-economic areas. Each time a region was ruled as being disadvantaged, they received one Socio-Economic Zone Index (SEZI) point. Each region's individual performance for all 10 socio-economic indicators is included below.

3.1 Total Unemployment

The Australian Bureau of Statistics (ABS) defines unemployment as individuals who, during the week prior to interview night, did not have a job but were actively looking for work and were available to start work. The total unemployment rate shows the proportion of the labour force in each region that satisfies the ABS definition.

Table 3.1 below shows that unemployment in Brewarrina was most disproportionate to NSW, followed by the Central Darling. Apart from Coonamble, all regions and the whole Barwon Darling area, are ruled as disadvantaged and receive one SEZI point.

Table 3.1: Unemployment Rate Ranked by Region

Rank	Region	Total Unemployment Rate	Percentage Different to NSW
1	Brewarrina	14%	-198%
2	Central Darling	11%	-128%
3	Walgett	9%	-96%
4	Bourke	9%	-91%
5	Coonamble	5%	-13%
	Barwon Darling	9%	-105%
	NSW	4.60%	

Source: DEEWR 2008

3.2 Long Term Unemployment

Long-term unemployment shows the level of continuing unemployment in a region. Long-term unemployment is indicative of the structural, rather than cyclical, sources of unemployment.

Long-term unemployment statistics for LGAs were not available and thus an aggregated statistic was used for this comparison.

When compared to NSW as a whole, the Barwon Darling region is considered disadvantaged by long term unemployment rates, as shown in Table 3.2 below:

Table 3.2: Long Term Unemployment Rates Ranked by Region

Region	Long-term Unemployment Rate	Percentage Different to NSW
Northern, Far West-North Western and Central West Statistical Regions	24%	-33%
NSW	18%	

Source: ABS 2008

3.3 Aboriginal and Torres Strait Islander Unemployment

The Aboriginal and Torres Strait Islander (ATSI) unemployment rate shows the proportion of indigenous Australians that satisfy the ABS definition of unemployment. The unemployment rate has been calculated as total indigenous unemployment divided by the total indigenous labour force. This methodology differs from the 2003 report which calculated SEZI scores based upon total indigenous unemployment divided by the total labour force. This change was enacted to provide consistency in calculation across all SEZI indicators. For comparison purposes, 2003 indicators for Aboriginal and Torres Strait Islander unemployment were recalculated based upon this new methodology.

As shown in Table 3.3, ATSI unemployment is substantially higher in Bourke and the Central Darling than in NSW as a whole.

Table 3.3: ATSI Unemployment Rates Ranked by Region

Rank	Region	ATSI Unemployment Rate	Percentage Different to NSW
1	Bourke	25%	-30%
2	Central Darling	24%	-25%
3	Coonamble	22%	-15%
4	Walgett	21%	-12%
5	Brewarrina	21%	-11%
	Barwon Darling	23%	-19%
	NSW	19%	

Source: ABS 2006

3.4 Youth Unemployment

The rate of youth unemployment measures the proportion of the labour force aged between 15 and 25 who satisfy the ABS definition of unemployment.

Brewarrina, Bourke, Coonamble and Walgett were each ruled as disadvantaged under this socio-economic factor, as was the Barwon Darling region overall. The Central Darling recorded a youth unemployment rate slightly lower than the NSW average, and was not ruled as disadvantaged. The regional youth unemployment rates are compared with NSW in Table 3.4 below.

Table 3.4: Youth Unemployment Rates Ranked by Region

Rank	Region	Youth Unemployment Rate	Percentage Different to NSW
1	Brewarrina	23%	-100%
2	Bourke	17%	-46%
3	Coonamble	16%	-41%
4	Walgett	16%	-41%
5	Central Darling	11%	2%
	Barwon Darling	17%	-45%
	NSW	12%	

Source: ABS 2006

3.5 Employment Growth

Employment growth is indicative of economic growth in a region. Employment growth in the Barwon Darling regions was measured between the 2001 and 2006 Census'.

Overall, the Barwon Darling region experienced a significant decline in employment (Table 3.5). Each region is significantly disadvantaged when compared with the benchmark NSW, which recorded an increase in employment.

Table 3.5: Employment Growth Ranked by Region

Rank	Region	Employment Growth	Percentage Different to NSW
1	Central Darling	-30%	-638%
2	Bourke	-22%	-491%
3	Walgett	-16%	-384%
4	Brewarrina	-16%	-377%
5	Coonamble	-6%	-207%
	Barwon Darling	-18%	-419%
	NSW	6%	

Source: ABS 2006, ABS 2001

3.6 Household Income

The median household income in a region indicates the general level of affluence in that region. On average, households in the Barwon Darling region received a weekly income of just over half of the income generally received by households in NSW. All Barwon Darling regions are ruled as disadvantaged by income except Bourke, as shown in Table 3.6 below:

Table 3.6: Household Income Ranked by Region

Rank	Region	Median Income	Percentage Different to NSW
1	Walgett	$ 581.60	-44%
2	Central Darling	$ 596.30	-42%
3	Coonamble	$ 677.30	-35%
4	Brewarrina	$ 712.90	-31%
5	Bourke	$ 820.60	-21%
	Barwon Darling	$ 677.74	-35%
	NSW	$ 1,036.00	

Source: ABS 2006

3.7 Poverty

The incidence of poverty in a region indicates the proportion of the population living below a prescribed poverty line. For the March quarter of 2008, the Melbourne Institute of Applied Economic and Social Research (2008) estimated the Henderson Poverty line to be $378.08, including housing, per week for individuals.

For the purposes of comparison with the 2006 ABS Census figures, the poverty line was rounded to $399.00. This means the proportion of people indicated to be under the poverty line may be slightly overstated.

Table 3.7 below shows that the Central Darling had the highest proportions of poverty while Walgett narrowly avoided being classed as disadvantaged in this indicator. The Barwon Darling region as a whole was not considered disadvantaged.

Table 3.7: Poverty Ranked by Region

Rank	Region	Percentage of Population in Poverty	Percentage Different to NSW
1	Central Darling	42%	-26%
2	Walgett	41%	-23%
3	Coonamble	38%	-15%
4	Brewarrina	37%	-11%
5	Bourke	31%	6%
	Barwon Darling	38%	-14%
	NSW	33%	

Source: ABS 2006

3.8 Qualifications

The proportion of qualifications in the population indicates the education level of the population and the general skill level of the workforce. Education has a strong influence on the quality of life of an individual, and is thus a prevalence indicator of disadvantage. Further, as labour market outcomes are partially determined by education, the level of qualifications in a region provides an at risk indicator of disadvantage.

All regions recorded a higher proportion of education than the NSW average, as shown in Table 3.8 below.

Table 3.8: Qualifications Ranked by Region

Rank	Region	Proportion of Qualifications per Capita	Percentage Different to NSW
1	Bourke	33%	19%
2	Walgett	33%	19%
3	Central Darling	31%	10%
4	Brewarrina	30%	7%
5	Coonamble	28%	1%
	Barwon Darling	31%	11%
	NSW	28%	

Source: ABS 2006

3.9 Age

The proportion of people in the population who are under 15 or over 65 years old provides an at risk measure of disadvantage.

Those over 65 years old are more likely than the average individual to live in poverty. People over 65 also require more medical services and other care services than the average population. Thus, the proportion of people over 65 in a region is indicative of a regions disadvantage. The proportion of people under 15 is also an indication of disadvantage, as households must pay for education and medical expenses. These expenses typically occur at a time in the life cycle when household earnings are low.

As shown in Table 3.9, none of the Barwon Darling regions were ruled as disadvantaged for their proportion of youth and elderly. Interestingly, the Central Darling returned a lower youth and elderly proportion than the benchmark NSW average.

Table 3.9: Proportion of Youth and Elderly Ranked by Region

Rank	Region	Percentage under 15 or over 65	Percentage Different to NSW
1	Coonamble	39%	-17%
2	Bourke	36%	-8%
3	Brewarrina	36%	-6%
4	Walgett	35%	-4%
5	Central Darling	32%	6%
	Barwon Darling	36%	-6%
	NSW	34%	

Source: ABS 2006

3.10 Gross Regional Product

Gross regional product (GRP) per capita provides a second measure of the general level of affluence in a region. GRP was estimated as the sum of industry value added for each region. Industry value added was calculated by multiplying industry employment levels in each region by the average value added per worker in each industry.

Overall, the Barwon Darling region experienced a decline in GRP per capita (Table 3.10). Each region is significantly disadvantaged when compared with the benchmark NSW figure, which recorded an increase in GRP per capita over the period.

Table 3.10: Gross Regional Product Per Capita Ranked by Region

Rank	Region	GRP per Capita	Percentage Different to NSW
1	Central Darling	$14,851.34	-69%
2	Brewarrina	$15,043.18	-68%
3	Walgett	$19,344.05	-59%
4	Coonamble	$20,461.47	-57%
5	Bourke	$21,236.37	-55%
	Barwon Darling	$19,822.47	-58%
	NSW	$47,442.33	

3.11 Total SEZI Scores

The total 2008 SEZI scores for each region compared with those of 2003 are shown below in Table 3.11.

Table 3.11: SEZI Score Ranked by Region

	2003 SEZI	2008 SEZI
Walgett	5	5
Coonamble	3	4
Brewarrina	5	5
Central Darling	6	6
Bourke	2	5
Barwon Darling Alliance	4	5

Walgett, Brewarrina and Central Darling have remained stable in terms of their respective SEZI scores between 2003 and 2008, with Walgett and Brewarrina scoring 5 SEZI points and Central Darling scoring 6. Coonamble has seen a slight decline moving from 3 to 4 SEZI points but is still not considered disadvantaged under the SEZI measure. The greatest shift however, has been in the Bourke LGA, which scored 5 SEZI points, up from 2 in 2003 to be reclassified as disadvantaged. As a whole, the Barwon Darling Alliance SEZI score increased by 1 meaning as a whole the region is considered to be disadvantaged.

4 SHIFT SHARE ANALYSIS

The growth and decline of 17 major industry sectors in the Barwon Darling was observed by comparing 2001 and 2006 ABS employment figures, as shown in *Table 4.1.*

Table 4.1: Industry Change 2001 - 2006, Number of Persons Employed.

	NSW Growth Component	Industrial Mix Component	Local Component	Total
Accommodation, Cafes and Restaurants	31.4	-15.0	-114.4	-98.0
Agriculture, Forestry & Fishing	193.2	-521.7	-255.6	-584.0
Communication Services	7.2	-19.0	-20.1	-32.0
Construction	26.9	42.9	-145.8	-76.0
Cultural and Recreation Services	6.8	-4.2	11.4	14.0
Education	55.4	46.2	-83.6	18.0
Electricity, Gas and Water Supply	3.2	4.5	24.3	32.0
Finance and Insurance	5.0	1.3	-17.4	-11.0
Government Administration and Defence	43.7	120.4	-261.2	-97.0
Health and Community Services	55.2	102.2	-74.4	83.0
Manufacturing	21.6	-19.5	-113.1	-111.0
Mining	10.9	39.3	-95.2	-45.0
Personal and Other Services	27.1	1.0	-82.1	-54.0
Property and Business Services	22.3	-0.8	-103.5	-82.0
Retail Trade	61.3	-14.0	-247.4	-200.0
Transport & Storage	14.8	5.4	-39.2	-19.0
Wholesale Trade	20.7	-63.5	-88.3	-131.0
Total	606.6	-294.2	-1705.4	-1393.0

Four of the 17 industries recorded a net increase in employment between 2001 and 2006.

- The greatest increase was recorded in the health and community services sector, followed by electricity, gas and water supplies, education, and cultural and recreational services.
- The greatest declines in employment occurred in agriculture, forestry and fisheries, followed by retail trade, wholesale trade and manufacturing.

Much of the decline that occurred in Barwon Darling industries between 2001 and 2006 can be attributed to local factors.

- The positive employment growth in the regional NSW economy as a whole is responsible for offsetting some of the growth negativity evident across the majority of industry sectors.
- Industry influences had a positive impact on 9 of the 17 industry sectors, particularly government administration and defence and health and community services.
- Factors specific to the Barwon Darling region had a negative impact on all industries except electricity, gas and water supply, and cultural and recreational services.

Overall, industry in the Barwon Darling is declining as a result of local factors, with agriculture, forestry and fishery, retail and wholesale trade, and manufacturing most affected. Electricity, gas and water supply and cultural and recreational services were the only industries to experience overall growth that occurred as a result of being located in the Barwon Darling region.

5 IMPACT OF SOCIO-ECONOMIC ZONE MODEL

An Input Output (IO) table was created for the Barwon Darling region based on updated 2006 census data inflated to 2007 values. This table was built to correspond to the 2000-01 table built for the original 2003 Barwon Darling Enterprise Zone report. This allowed a comparison to be made between the key economic indicators - gross regional product, household income and employment. A further detailed explanation of Input-Output methodology can be found in *Appendix 2: Input-Output Methodology.*

5.1 Assumptions Incorporated in the Input-Output Analysis

A number of assumptions derived from the 2003 Barwon Darling Alliance Impact study have been adapted in the construction of the IO tables so as to allow a degree of comparison to be made:

- In its report on enterprise zones, the National Institute for Economic and Industry Research (2001) estimated that the budget for a socio-economic zone could be about $5 million per annum. Inflated to account for CPI increase this figure would amount to $5.9 million in 2007 dollars. For the purposes of this analysis it is assumed that the budget for a Barwon Darling socio-economic zone could be a similar amount.

- Sixty percent of the socio-economic zone budget is made available for wage credits, with the remainder of the proposed budget being available to provide businesses with other incentives to reduce the cost of finance for expansion and assist new businesses establish or move into the area; as well as the administration of the trial. This means the funding available for wage credits is $3.5 million.

- Wage credits of 25 percent of total labour costs are provided to firms that increase their employment levels and for all employees of new businesses.

- The average labour costs of employees eligible for a wage credit is $ 33,581.02, which is the average figure for the compensation of employees (i.e. wages plus on-costs) in the Barwon Darling 2000-01 table constructed by the Western Research Institute, inflated by Australian Tax Office (ATO) income trends calculated for each LGA.

- Given total labour costs of $33,581.02 the average wage credit would be about $8,395.25 per eligible employee. With a budget of $3.5 million this means the employers of about 421 new workers could receive a wage credit.

- As such, socio-economic zone incentives are assumed to lead to the creation of 421 full-time equivalent jobs.

- The productivity and compensation of the 421 new employees is equal to the average per worker for the region, as determined by the Barwon Darling input-output model.

An input-output table for the Barwon Darling region was constructed using the Generation of Regional Input-Output Tables (GRIT) system and balanced using the RAS technique. Appendix 2 describes in detail how the Barwon Darling input-output table was constructed.

5.2 Economic Impact of Barwon Darling Region and Socio-Economic Zone

Table 5.1 demonstrates the possible economic impact of the Barwon Darling socio-economic zone model.

Table 5.1 Economic Impact of Barwon Darling Socio-Economic Zone (2006-07)

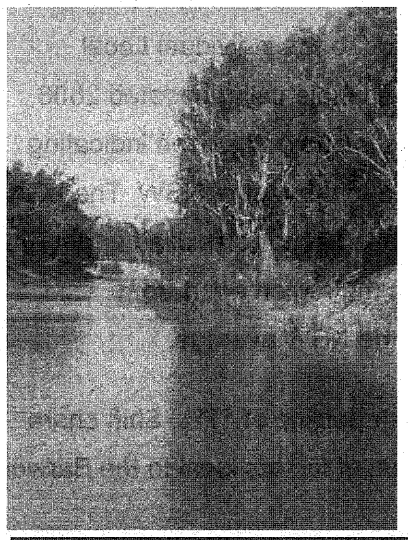
Economic Indicator	Barwon Darling Region (2006-07)	Economic Impact of Socio-Economic Zone
Gross Regional Product	$364 million	$26.2 million
Household Income	$196.1 million	$14.1 million
Employment (FTE)	5,839 jobs	421 jobs

In the current study, a socio-economic zone in the region could be expected to contribute some $26.2 million in gross regional product (GRP), $14.1 million in household income and 421 full-time equivalent jobs given the above assumptions. Given the estimated gross regional product in 2006-07 of $364 million, additional GRP of $26.2 million is equivalent to economic growth of 7.2 percent, an increase on the expected growth had the socio-economic zone been implemented in 2000-01 of 4.7 percent.

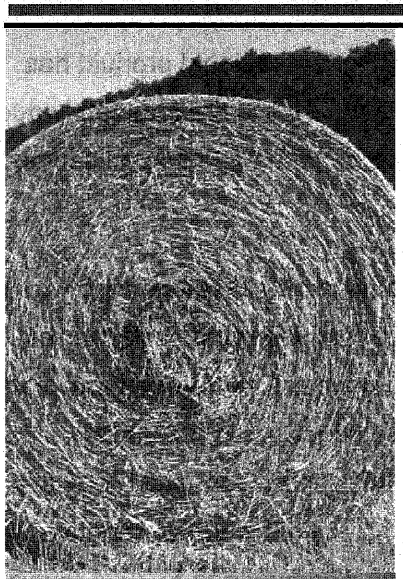
A comparison of results also demonstrates the fall in FTE employment between 2001 and 2007 has resulted in a corresponding fall in gross regional product and total household income over the same period. Considerable job losses occurred in agriculture, retail trade and manufacturing as shown in the shift share analysis of the region (Table 4.1), traditionally

low skill and low compensation industries. With the greatest losses occurring in the agricultural sector, an industry which has had to deal with significant drought and other natural factors since the original study, this has lead to the flow on in employment contraction across related industries and those that rely on household income. An increase in skilled labour, particularly in health, education and utilities, along with general average increases of compensation has resulted in increased average household incomes in 2006-07 compared to 2000-01.

In total, gross regional product has decreased by 39%, total household income by 22% and employment by 31% between the two periods.



Conclusion



6 CONCLUSION

The Socio-Economic Zone Index (SEZI) measure was reapplied to the individual Local Government Areas (LGAs) and the Barwon Darling region as a whole using updated 2006 census data. The SEZI score for the Barwon Darling region as a whole has risen indicating the region's disadvantage has increased since 2001 compared to the rest of NSW. The LGA of Bourke saw a considerable down turn over the period and has been reclassified under the SEZI score system as disadvantaged. This means all LGAs in the region apart from Coonamble are now considered disadvantaged compared to the NSW average.

Between 2001 and 2006, total employment fell by 1,393 jobs, a decline of 17%. Shift share analysis has indicated that a large part of this decline is a result of factors local to the Barwon Darling region and its economy.

Based on Input Output analysis, between 2000-01 and 2006-07 gross regional product has declined by some 39% while household income has fallen by 22%. This is predominately due to the drought and flow on effects from the subsequent contraction in the agricultural sector impacting on the social and economic structure of the region.

In summary, the Barwon Darling region, as in 2001, suffers considerable disadvantage when compared to the rest of NSW. In fact the disadvantage gap between the region and the rest of the state has widened considerably over the examined time period. A socio-economic zone is a tool which would likely help alleviate disadvantage in the region. Should a zone be established on a comparative scale to that suggested in the 2003 report, some 421 jobs are likely to be created. This positive impact would not be able to fully offset external negative factors in the region's economy, nor is it even likely to decrease disadvantage to 2001 levels. However such an initiative would make significant inroads into improving the welfare and social situation of the people of the Barwon Darling region.

References

ABS, 2008, Space-Time Research, Unemployed Persons (ST RM3_sep97) by region, sex, duration of unemployment - from September 1997, Australian Bureau of Statistics. Available online: www.abs.gov.au

ABS 2006, 2006 Census of Population and Housing, Australian Bureau of Statistics. Available online: www.abs.gov.au

ABS 2001, 2001 Census of Population and Housing, Australian Bureau of Statistics. Available online: www.abs.gov.au

DEEWR, 2008, Small Area Labour Markets Australia: June Quarter 2008, Department of Education, Employment and Workplace Relations, Australia

MIAESR, 2008, Poverty Lines: Australia, March Quarter 2008, Melbourne Institute of Applied Economic and Social Research, Melbourne, Australia.

WRI, 2003, The Barwon Darling Enterprise Zone, Western Research Institute, Bathurst, Australia.

APPENDIX 1: SHIFT-SHARE METHODOLOGY

The shift-share methodology is useful as it provides some explanation of the past employment growth performance of a region. It is a mathematical technique that separates employment growth between state economy, industry mix and local components. In addition, shift-share analysis identifies industries that have grown at a faster rate than state and industry averages.

For each component of the shift-share analysis (state economy, industry mix and local) the result is either shown as a positive or negative change in employment.

- **State Economy** - The Barwon Darling region is part of the larger NSW economy is affected by state wide economic conditions such as changes in State government policy, levels of economic activity, and so on. It is therefore reasonable to expect that part of the employment growth in the region could be attributable to the overall growth of the NSW economy. This has been assessed as growth in the State regional economies i.e. excluding growth in the Sydney Statistical Division.

Calculated as 2006 employment in the Barwon Darling region multiplied by the average regional employment growth for NSW.

- **Industry mix** - Industries grow at different rates to the average for the economy as a whole, growth may be rapid in some industries and slow or stable in others. Thus, the mix of industries in the Barwon darling region will affect the overall level of employment growth in the region.

Calculated as the average growth of each industry at the combined regional state level less the average growth of regional NSW overall multiplied by 2006 employment in the Barwon Darling region.

- **Local component** - It could be expected that each industry in the Barwon Darling region will reflect the characteristics of that industry at the state level, however there will also be differences in the growth rates compared to the average rate of growth for that industry in regional NSW. Such differences can occur for a range of reasons, including: the competitive advantage of local industry; an attractive economic environment; access to resources and infrastructure; and so on. The local component of employment growth is attributable to the relative performance of firms in the region compared to the state average.

  A positive local factor component for an industry indicates that firms from that industry in the Barwon Darling region performed better than the combined state average in that industry, in terms of employment growth. Conversely, if the Barwon Darling region

shows a negative local factor component for an industry, the firms in that industry are performing relatively poorly in comparison to the state average for that industry.

Calculated as the growth of each industry in the Barwon Darling region less the average growth of each industry at the state level multiplied by 2006 employment in the Barwon Darling region.

Shift-share analysis, like all analytical techniques has some limitations. The main limitations of shift-share analysis include:

- it is based on ABS employment data which is defined place of residence not place of work, therefore the analysis may include individuals residing in the Barwon Darling region but working in other areas and vice versa;
- it does not offer a definitive explanation of why the various effects were positive or negative;
- in some cases the use of averages is not representative of the employment performance of individual industries or regions; and
- it may not be a reliable indicator of future employment performance.

APPENDIX 2: INPUT-OUTPUT METHODOLOGY

Input-output tables are part of the Australian national accounts. An input-output model provides a very detailed picture of the structure of an economy at a particular point in time. It includes all the transactions that occur during a specific period, usually one year.

- The rows of an input-output table show the disposal of the output of an industry to itself and to other industries as well as final demand categories (i.e. exports and household consumption); and
- The columns show the origin of inputs into production, whether they are intermediate inputs (i.e. intra- and inter-industry purchases) or primary inputs (i.e. labour and capital).

The main use of input-output tables is economic impact analysis, where the tables are used to estimate the benefits generated by new initiatives on each and every sector of an economy. For example, if there is a change in the purchasing or sales pattern of any industry, the flow-on, or multiplier, effects on upstream industries can be calculated. An input-output table is also very useful for estimating the direct and indirect contribution of a specific industry to the economy.

The application of input-output analysis to estimate the contribution of an industry to the economy involves four basic steps:

- Construction of appropriate national, state and regional input-output tables;
- Estimation of the value of the sales and purchases of the industry using surveys and secondary data sources;
- Insertion of separate sectors representing the economic activities of the industry; and
- Balancing of the input-output tables using the RAS method.

The input-output tables used in this study were constructed using the Generation of Regional Input-Output Tables (GRIT) system.

GRIT uses a series of non-survey steps to produce a prototype regional table from the national table, but provides the opportunity at various stages for the insertion of "superior data". The system is "variable interference" in that the analyst is able to determine the extent to which they interfere with the mechanical processes by introducing primary or other superior data.

The GRIT system is designed to produce regional tables that are:

- Consistent in accounting terms with each other and with the national table;
- Capable of calculations to a reasonable degree of holistic accuracy; and
- Capable of being updated with a minimum effort as new data becomes available.

The GRIT technique is basically a hybrid method of deriving state and regional input-output tables from the National input-output table while at the same time allowing for the insertion of superior data (i.e. information collected from surveys of individuals and organisations in the industry) at various stages in the construction of the tables. The GRIT procedure was developed by Associate Professor Guy West and Professor Rod Jensen of the University of Queensland and is the most widely used method of constructing input-output tables in Australia. The GRIT method is also widely used in America and Europe.

The final input-output tables were balanced using the RAS technique. The RAS technique is a bi-proportional iterative adjustment method designed to modify a base input-output matrix to fit new row and column totals. The rows and columns are simply adjusted proportionally to the new row and column totals in turn, and the cycle repeated until the actual row and column totals converge to the specified values. After the tables were balanced they were checked to ensure that the final tables were consistent and to identify any large discrepancies.

One of the main limitations of input-output tables is the assumption of linear coefficients. To address this problem and the associated problem of overestimation the input-output analysis undertaken for the Barwon Darling Alliance incorporates the marginal coefficients model.

The marginal income coefficients model attempts to overcome the limitations of traditional input-output analysis by removing the assumption of linear coefficients for the household sector. As is well documented in the literature, the household sector is the dominant component of multiplier effects in an input-output table so using marginal income coefficients for the household sector only provides a more accurate estimate of the multiplier effects and provides results closer to those of a computable general equilibrium (CGE) model. This should still result in a more accurate estimate of the significance of the industry value chain than would be possible with traditional input-output analysis.

Glossary of Terms

Capital Expenditure	Gross fixed capital expenditure is the purchases of durable investment goods such as dwellings, plant and equipment.
COE	Compensation of Employees (COE) is equal to the wages and salaries of employees plus on-costs (e.g. superannuation and payroll tax). Compensation of Employees is the basis of the *Household Income* multiplier.
Employment	Employment is measured as full-time equivalent (FTE) jobs.
Exports	At the national level exports are goods and services sold to non-residents. Note that non-residents are defined as consumers, firms and governments from outside a given area. To illustrate the difference, the sale of goods from the Barwon Darling Alliance region to a purchaser in Sydney is an export with respect to the Barwon Darling Alliance region input-output table, but is not classified as an export in the New South Wales input-output table.
Final Consumption	Final consumption expenditure includes the current expenditure of households, industry and government. It includes purchases of durable and non-durable commodities, except the purchase of dwellings and equipment that are capital in nature. There are two types of final consumption: private final consumption expenditure (PFCE) and government final consumption expenditure (GFCE).
Final Demand	Final demand is the demand for goods and services not used up during the production process. Final demand is the sum of household and government consumption expenditure, capital investment, exports and increases in inventories.
Intermediate Inputs	An intermediate input is a good or service that is used in the production process.
Imports	Imports are goods and services purchased from non-residents and may include: competing imports, where there is a domestically produced substitute; and complementary imports, where there is no domestically produced substitute. Note that non-residents are defined as consumers, firms and governments from outside a given area. To illustrate the difference, a purchase of equipment from Sydney by a Barwon Darling Alliance producer is an import with respect to the

	Barwon Darling region input-output table, but is not classified as an import in the New South Wales input-output table.
GOS	Gross Operating Surplus (GOS) is the excess of gross output over the costs of production, before deducting depreciation, interest and company taxes.
Multiplier	A multiplier is a summary measure used for estimating the economic impact on an economy caused by a change in the demand for the output of a particular industry or group of industries. A multiplier indicates the relative magnitude of the flow-on effects of an industry compared to the direct effect of that industry. The multipliers in this report are for *output*, *value added*, *household income* (i.e. compensation of employees) and *employment*.
Output	Output is equal to total sales (i.e. quantity sold multiplied by price per unit).
Primary Inputs	A primary input is an input into the production process that is not a good or service. Examples of primary inputs are compensation of employees, gross operating surplus, imports and indirect taxes on products and production.
Value Added	Value-added is equal to the value of output minus the value of intermediate inputs. That is value added is the difference between the costs of production (excluding the Compensation of Employees, Gross Operating Surplus, Taxes and Imports) and the value of sales turnover. In a national accounts context, Gross Domestic Product (GDP) consists of the sum of value-added by all industries. Value-added also pertains to differences between the value of production at various stages of the supply chain.

APPENDIX 3: FISCAL AND MARGINAL IMPACT

A3.1 Fiscal Impact

The fiscal impact of wage credits based on some realistic assumptions has been estimated below. In addition to those assumptions listed in section 5.1 and used to estimate the socio-economic zone budget and job creation, the assumptions underlying this estimate of the fiscal impact are as follows:

1. The annual Centrelink payment to an unemployed person is equal to $11,619.40. This is the Newstart payment, which was obtained from the Centrelink website, calculated as the average of the individual's status (single with or without children; or partnered). It is a conservative figure for unemployment benefits saved, although there would be higher savings for unemployed individuals and those working in Community Development and Employment Projects (CDEPs).

2. With on-costs of 15 percent and total labour costs of $33,581 derived from Australian Tax Office (ATO) data and the IO tables constructed by the Western Research Institute (WRI) the average wage for employees eligible for a wage credit is about $29,200. This figure represents the actual remuneration employees will be taxed upon. Given the tax rates for 2006-07 the income tax paid by new employees in the Barwon Darling socio-economic zone would be approximately $3,480 per year, which is equivalent to about 12 percent of their average earnings.

3. After tax, employees have a disposable income of about $25,720 per annum. New employees in a socio-economic zone have a marginal propensity to consume of 0.8. In other words the new employees consume 80 percent of the disposable income they receive above their previous Newstart payments. The Goods and Services Tax (GST) of 10 percent is applied to this additional consumption expenditure. Thus, the additional GST paid is $1,128 per annum.

4. Evidence from the United Kingdom suggests that 55 percent of the additional people employed in remote socio-economic zones (i.e. similar to the Barwon Darling) were previously unemployed. Thus, it will be assumed that unemployment benefits are saved for only half of the people who receive wage credits. Likewise, the additional income tax and GST benefits are only received for half of the new jobs created in the socio-economic zone.

Table A3.1 shows the fiscal impact of the Barwon Darling socio-economic zone on government expenditures and receipts, based on the assumptions outlined above. Given those assumptions, the Barwon Darling socio-economic zone would result in net expenditure for the state and federal governments of about $2.5 million per year. This estimate does not include extra funding commitments made as part of existing government programs.

Table A3.1 Fiscal Impact of Barwon Darling Socio-Economic Zone

Government Budget	Expenditures ($)	Receipts ($)
Barwon Darling socio-economic zone funding	5,900,000	
Additional income tax		732,540
Additional GST		237,469
Unemployment benefits saved	(2,445,884)	
Total	**3,454,116**	**970,009**
Net fiscal impact	**2,484,108**	

A3.2 Net Marginal Cost of Job Creation

Given the assumptions in A3.1 it is possible to estimate the net marginal cost of each job created in the Barwon Darling socio-economic zone. The net marginal cost is equal to the wage credit less the sum of additional income tax and GST plus the unemployment benefits saved.

Table A3.2 shows that the net marginal cost per job created in the Barwon Darling socio-economic zone is $281. In other words, once the 'fixed costs' (for example administration) of establishing the Barwon Darling socio-economic zone are incurred, it only costs $281 to create each job.

Table A3.2 Net Marginal Cost Per Job Created

Item	Amount
Wage Credit per Employee	$8,395
Less: Additional Income Tax	$1,740
Extra GST	$564
Unemployment Benefits Saved	$5,810
Net Marginal Cost per Job Created	**$281**

Net marginal cost per job is heavily reliant upon current government tax and welfare policy. As such, fluctuations in this value are common when examined over the long term. However at this point in time the net marginal cost per job created has remained remarkably constant when compared to 2003 with a rise of only one dollar per job created occurring.

THE WESTERN RESEARCH INSTITUTE

The WRI is a non-profit economic, business and social research organisation located on the Bathurst campus of Charles Sturt University. The WRI holds a wealth of knowledge on employment, business development and investment issues affecting regional Australia. It has worked with Commonwealth, State and Local Governments and industry groups on numerous investment and development programmes in regional areas. The WRI has strong credentials in business and commercial market consulting and applied economic modelling including input-output analysis, shift-share, agribusiness and regional socio-economic surveys and analysis.

The Research Team

WRI has built a dedicated team of professional research staff and associates with the expertise necessary to provide our clients with robust and reliable research solutions. All staff at WRI have extensive experience in data collection, analysis and reporting. WRI has a team approach to its projects and allocates work to members of the research staff as appropriate.

Tom Murphy Chief Executive Officer BEc. (Hons I) MSc. (Econ) Lancaster

Tom Murphy holds the degrees of Bachelor of Economics from the University of New England and Master of Science (Economics) from the University of Lancaster. He is currently Chief Executive Officer of the WRI. Mr Murphy has previously held academic positions as senior lecturer in Economics and Director of the Regional Economics Research Unit in the Faculty of Commerce, Charles Sturt University, Bathurst and positions at the University of New England and Macquarie University. He has also held the positions of Economic Analyst with the Office of National Assessments in Canberra, with responsibility for the ASEAN economies and Senior Consultant with KPMG Peat Marwick Management Consultants.

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Kathy is research manager of the WRI and is an experienced researcher in both the private and public sectors. Kathy provides project management across the WRI projects. Kathy's strengths lie in conducting community surveys, data analysis and information communication technology. Her experience in private consultancy and the Planning and Audit Division of CSU provides a strong background in project management and quality assurance.

Kathy Woolley – Business Development Officer BCom (Economics), Change Management Qualification (CMQ) (AGSM), Cert Public Participation (IAP^2)

Kathy has worked in the private and public sectors holding senior management positions for over 20 years. Her diverse career has included work within the media, events management, economics research, information management, retail and local government sectors. Kathy has an economics undergraduate degree and postgraduate qualifications in change management and public consultation. Having a background in project management assists Kathy in designing solutions that meet our customers' needs.

Lesley Arthur – Senior Research Officer BSc. Bio Sc (Hons), MSc Tech Ec.

Lesley is an experienced researcher in the areas of tourism, property development and economic development. Prior to joining WRI, Lesley was a director with KPMG Peat Marwick Management Consultants in Australia and Malaysia. Lesley is skilled in the construction and application of market forecasting and financial models and brings a wealth of experience to WRI projects.

Danielle Ranshaw – Senior Research Officer BEc&Fin NSW

Danielle's experience in project management in the information technology sector combined with qualifications economic and finance provide a solid background for WRI projects. Danielle recently joined the WRI after coordinating the Study Link program for Charles Sturt University. Danielle's skills in business and systems analysis, performance planning and review, and project planning make her a valued member of the WRI team.

Rachel Somerville – Research Officer BEquineBusMgt (Hons)

Rachel has experience in the hospitality and retail industries as well as having spent several years working as a sales representative for a local newspaper, developing a sound understanding of regional business. Rachel holds a Bachelor of Equine Business Management with second class, first division honours from the University of Sydney where she also listed on the Deans Honour List for Business Law.

Deborah Munns – Research Officer BA (Hons) USyd, Grad Dip Sec Ed (HSIE) CSU

Deborah has a Bachelor of Arts degree with Honours, majoring in Human Geography and Industrial Relations. Recently, Deborah obtained a Graduate Diploma in Secondary Education (HSIE). Deborah has a broad range of experience in the travel, retail and local government sectors. With experience in social research in both private consultancy and local government sectors, Deborah brings a variety of skills to support her position at the WRI.

David West – Research Officer BEcon, GCAppLaw UQ

David comes to the WRI having developed a range of skills in economic impact analysis, in particular Input Output (IO) modelling. Having worked previously for the Centre for Economic Policy Modelling at the University of Queensland, David has experience in modelling impacts from the LGA to national level and has worked on projects as diverse as non-profit festivals to major government infrastructure projects and billion dollar private sector investments and expansions both in Australia and abroad.

Dale Rogers – Research Assistant BA ANU

Dale commenced at the WRI as a fieldwork supervisor, and has worked on several community and business surveys. Dale also holds a Bachelor of Arts degree and majored in Anthropology and International Relations. Dale brings a high level of organisational skills and a vibrant personality to the WRI team.