

AFFA

AGRICULTURE, FISHERIES AND FORESTRY - AUSTRALIA

**SUBMISSION TO THE HOUSE OF REPRESENTATIVES
STANDING COMMITTEE ON PRIMARY INDUSTRIES AND
REGIONAL SERVICES**

**INQUIRY INTO INFRASTRUCTURE AND THE
DEVELOPMENT OF AUSTRALIA'S REGIONAL AREAS**

Agriculture, Fisheries and Forestry - Australia
Canberra
April 1999

Summary

Infrastructure in rural areas is an essential component of sustainable and profitable rural industries and communities.

Portfolio industries contribute significantly to the national economy and the fabric of rural areas. A range of unprecedented economic, social and environmental challenges have impacted on these areas in recent years leading to high levels of change, uncertainty and adjustment in rural industries and communities. These challenges have also provided significant opportunities for development.

Traditionally, infrastructure has often been viewed in the relatively narrow context of large physical investments such as roads and power supply. However, rural infrastructure also incorporates a number of broad physical, social and commercial components. Each of these components are necessary for the whole to work successfully.

Technological change, competitive pressures and the changing emphasis from public to private investment has resulted in an uneven distribution of infrastructure access between urban and regional Australia.

Prices are often higher in rural areas despite the existence of cross-subsidy arrangements for key infrastructure services.

The range of infrastructure which many urban areas take for granted, is simply not available in regional Australia; resulting in less competitive portfolio industries and less viable rural communities.

Governments must have a key role in infrastructure investment in rural Australia. However, rural industries and communities may also take collaborative action to identify and build on their competitive strengths, improve their productive capacity and increase their attractiveness to potential investors.

The future for agricultural, fisheries, forestry and food industries in rural Australia is generally positive with great potential for growth and long-term viability. However, this will only occur if suitable and affordable infrastructure is available.

INQUIRY INTO INFRASTRUCTURE AND THE DEVELOPMENT OF AUSTRALIA'S REGIONAL SERVICES

Agriculture, Fisheries and Forestry - Australia

The portfolio outcome statement for Agriculture, Fisheries and Forestry - Australia is 'More sustainable, competitive, and profitable Australian agricultural, food, fisheries and forestry industries'. Within this broad outcome, the Department aims to contribute to the achievement of the following two objectives:

1. Australian agricultural, food, fisheries, and forestry industries are profitable and competitive and continue to create jobs, particularly in regional Australia.
2. Australian agricultural, food, fisheries and forestry industries have a sustainable resource base.

Agriculture, Fisheries and Forestry – Australia (AFFA) works closely with Federal and State governments, rural industries and communities and a broad range of stakeholders to achieve its objectives. AFFA is an outcome focused organisation which develops and manages a number of policies and programs that focus on the sustainability, productivity and competitiveness of portfolio industries.

The industries for which AFFA has responsibility cannot be considered in isolation from the many other industries, sectors and individuals which impact on the sustainability and profitability of those industries. The long-term development opportunities for Australia's agricultural, fisheries and forestry industries will depend not only on their strength, but on their capacity to embrace the opportunities for change, their ability to shift to sustainable production systems, the strength of the broader economy and the international trading environment.

Among the many challenges and opportunities facing portfolio industries is a requirement for appropriate levels of infrastructure. Infrastructure is a key determinant of the long-term viability and productivity of rural industries and communities. Without appropriate types and levels of economic and social infrastructure, rural areas will have difficulty in reaching their full potential and addressing a range of complex issues at the local level including employment, financial investment and environmental concerns.

The aim of this submission is to draw attention to a range of infrastructure issues as they relate to AFFA portfolio industries and to highlight important considerations for the sustainable and long-term development of Australia's rural areas.

Current Issues for Portfolio Industries and Regional Communities

Over the past decade, economic downturn, high interest rates, severe drought, low commodity prices, the economic impact of resource degradation, microeconomic reforms and the resulting process of structural adjustment have placed significant pressure on rural industries and communities.

Signs are emerging that prospects for the rural sector are improving. Globalisation of markets, international trade reform, expansion into Asian food markets and improvements in the domestic economy, including a return to low interest rates, are presenting new opportunities for rural industries and communities. Responding to these challenges and grasping the potential opportunities and rewards requires dynamic rural industries and communities with strong business and marketing skills in order to match international competition. However, this needs to be balanced against threats posed to Australia's agricultural and natural resource based industries by environmental degradation; some of which is due to adverse and unforeseen impacts of earlier inappropriate infrastructure investment decisions.

Rural areas have in recent years faced an unprecedented rate of change. Some of these changes may be aligned directly with the changes taking place in agricultural and related industries, while others are related to economic forces or changes in the biophysical environment. There is great variability in the direction and nature of change. While regional centres have been growing over the past decade, many small communities have experienced economic and social decline, including declining employment opportunities. This has been exacerbated by changes in technology and rationalisation of social and community services. Overall, such changes have placed considerable stress on rural areas.

The challenges facing rural Australia present a range of broad and complex issues which rural industries, communities and governments must address in an integrated and strategic way. A critical component in addressing these issues is the availability of appropriate infrastructure. Without appropriate education facilities and opportunities, skill levels will not be sufficient to meet industry and community needs. Similarly, without access to information, businesses will not be fully informed of industry developments. It should also be noted that inappropriate infrastructure investment can impose significant and long-term economic and environmental costs. Infrastructure and on-going investment provides the support mechanism for rural industry and community development and opportunity.

The Synergies Between Infrastructure and Portfolio Industries

Rural infrastructure incorporates a number of broad components including: physical infrastructure such as roads, rail, water storage and irrigation systems; commercial infrastructure such as financial institutions, retailers and professional business services; social infrastructure such as education and health care facilities; and, associated complex intangible elements such as business confidence, legal frameworks and business networks. Each of these components contribute to the long-term development potential of portfolio industries.

Physical Infrastructure

Physical infrastructure is vital to rural development. Transport services including roads, rail, air service hubs and port facilities are of particular importance in providing access to markets and ensuring the availability of production inputs.

Bulk commodities produced by Australia's primary industries are some of the most important traffic for our railways. For example, the grains industry accounts for 8.5 per cent of total national tonnage transported by rail, with wheat producers the major users of rail services. Sections of the beef, sugar and woodchip industries and, to a lesser extent, the wool and dairy industries rely on rail services to transport their products to processing facilities and market linkages. Road and air services are similarly important to the overall competitiveness of portfolio industries. Without appropriate transport services, rural areas will have difficulty in accessing and securing developing markets such as those in the Asian region. The business and production efficiencies currently being achieved by rural business managers can be quickly undermined by deficient transport services.

Telecommunications services: Access to telecommunications services is another essential infrastructure element which enables rural areas to more fully participate in economic development and respond to change. However, difficulties still exist for many rural industries and communities in accessing services taken for granted by urban Australia. Improved telecommunications services can stimulate local economies, result in more jobs, improve access to information, education, training, health and other government services. Rapid changes to telecommunications technology have the potential to further lock rural areas out of the development process unless care is taken to ensure that their needs are provided for. For portfolio industries, access to telecommunications services provide a vital link to market information, business developments and industry networking opportunities.

Water resources: Water is a key infrastructure consideration for portfolio industries - AFFA provides significant input to policy and program delivery in this area through its Natural Resource Management Policy Division. The management of Australia's water resources is critical to the future viability of rural areas. Some \$90 billion has been invested in water management infrastructure with about 70 percent of Australia's consumptive water use occurring in irrigated agriculture.

In addition, there are high costs resulting from resource degradation, some of which are linked to infrastructure provision issues.

P Price, writing in 'Agricultural Science' (vol 6. Number 6) in 1993, estimated the value of lost production due to a range of land degradation problems at \$960 million a year, with additional losses of \$450 million due to direct and indirect expenditures to overcome deterioration of water resources.

In an effort to address the consequences of poor decisions in the past, as well as to shift management of Australia's water resources onto a more sustainable footing, the Council of Australian Governments (COAG) is implementing a framework for water reform. Fundamental to the framework is the principle that new water infrastructure proposals must be both economically viable and ecologically sustainable.

Consistent with the COAG framework, AFFA's view is that investments in infrastructure for natural resource management should reflect the principles of Ecologically Sustainable Development and should be primarily market driven and subject to the disciplines of market forces. Apart from setting standards and other boundary conditions, governments should in general intervene only where market forces do not provide appropriate outcomes. Intervention by the Commonwealth should therefore be on the basis that:

- Natural resource management is primarily a state and local government responsibility;
- Where national interest considerations provide the basis for Commonwealth involvement, the investment should only proceed where it contributes to long-term economic viability and ecological sustainability; and,
- Where Commonwealth investment occurs it should be used where possible to lever necessary economic, management and institutional reforms and to attract additional investment from relevant government jurisdictions, private stakeholders and beneficiaries.

Detailed discussion of the issues associated with water management infrastructure can be found at Attachment A.

Portfolio Industry Examples

Forest Industries: The availability of road infrastructure for plantations is a key issue for a range of stakeholders, particularly in view of the anticipated significant expansion of Australia's plantation estate over the next 20 years. These stakeholders include potential investors in plantations (who require some assurance that the necessary roads will be in place when the time comes to harvest their plantations) and local governments (who have responsibilities for funding the construction and maintenance of local roads).

Under the *Plantations 2020 Vision* initiative, the area of plantations in Australia is planned to increase threefold between 1996 and 2020. The *Plantations 2020 Vision* is jointly supported by Commonwealth and State governments and the plantation growing and processing industries. It comprises a series of 28 actions designed to create a commercial environment conducive to investment in plantations. The rate of plantation establishment has already been increasing steadily over the 1990s.

Funding responsibilities of the various levels of government for the provision of road infrastructure were clearly set out under a Heads of Government Agreement in 1991. Under that agreement, the Commonwealth is responsible for meeting all costs associated with the National Highway System and Roads of National Importance. All other roads are the responsibility of the State and local governments. Hence Commonwealth responsibilities for most of the local roads required for plantations are very limited.

AFFA's view is that provision of road infrastructure is at least as much a planning issue as it is a funding issue. As noted above, there are well established responsibilities (and processes) for funding road infrastructure. However there appears to be scope for improving planning processes. The plantations sector in particular lends itself to planning for road infrastructure, not least because of the long lead times between establishing plantations and thinning/harvesting them (which is when the requirements for road infrastructure arise).

In Victoria, the plantation growing and processing industries, local governments and relevant State agencies have worked together in several regions to develop Timber Industry Road Evaluation Studies (TIRES). These studies help the relevant levels of government (State and local) to plan for future road infrastructure requirements, to build their cases for receiving appropriate levels of funding, and to allocate funding to where it is most required. It also allows the plantation industry to invest with greater certainty, in the knowledge that when the time comes to harvest their plantations the necessary road infrastructure will be in place.

The Commonwealth, through the Farm Forestry Program under the Natural Heritage Trust, has partly funded the TIRES process in the Greater Green Triangle plantation region, which extends across the Victoria/South Australian border. AFFA considers there may well be value in undertaking further TIRES type activities in other identified plantation regions across Australia, involving local government, relevant State agencies, and industry.

The TIRES model could potentially be extended to include other rural industries which are reliant on road infrastructure.

Food Processing Industry: This industry is to a significant extent located in rural and regional Australia. A cornerstone of the Government's efforts in this area is The Supermarket to Asia Strategy which recognises the growing opportunities in the export markets to Asia. The agri-food industries encompass agricultural and manufacturing industries producing raw and processed food and beverages. The Reform Beyond the Farmgate project assists the food processing industry by seeking to identify impediments to agri-food and fibre industry competitiveness, develop practical solutions and suggest alternatives. Key issues being addressed include the regulatory framework and its costs to business, market access and export development, the business environment, competitiveness, infrastructure, trends, opportunities and long term strategies.

Aquaculture Industry: Aquaculture is regarded as one of the key emerging rural industries in Australia. The industry was traditionally centred on the original products of pearling and oysters. In recent years through improved science and husbandry coupled with a steadily increasing demand for seafood we now culture a range of high value species such as tuna, salmon, abalone, prawns, trout, silver perch and pacific oysters. The industry is largely centred in remote and rural areas and contributes significantly to the development of infrastructure and regional employment in areas with traditionally low employment opportunities. The industry's current production is approximately \$500m per annum and is predicted to be \$1.4 billion by 2005. Aquaculture currently provides some 5,500 direct jobs in rural and remote Australia and by 2005 could provide approximately 10,000.

Aquaculture, like many Australian rural products is market driven and therefore requires access to infrastructure such as ports, roads and airports in order to be able to get high value product to market in good condition. The industry also relies on the services of supporting towns to provide a normal range of facilities such as housing, schools, health and recreational facilities for the employees. Two good examples of the regional importance of aquaculture can be seen at Dover in Tasmania where the salmon industry is based and Port Lincoln in South Australia which supports the Southern Bluefin Tuna industry.

The major growth in Australian aquaculture to date has been in the coastal regions and this reflects the value of marine aquaculture products which enables the industry to be competitive on the world export market. The main challenge to the continued development of aquaculture in the coastal environment is access to suitable sites for grow-out and processing as there are increasing coastal populations and an important number of other users of Australia's marine waterways. To facilitate this continued growth will require concerted state and local government action to adopt and apply multiple use planning to the development of coastal waters to ensure the industries future.

Aquaculture also has the potential to develop in inland Australia in both fresh and saline waters. This type of development, if carefully managed, has the potential to utilise existing farm infrastructure and add a further stream of income to existing farming enterprises. The technology and market assessment studies to determine the best approaches and species are yet to be conducted and it is a critical area in which AFFA has been encouraging development. Developments in this area will again require a commitment to planning and the application of appropriate environmental measures to ensure sustainability. With rising levels of salinity and rising costs of fresh water in irrigation areas an industry that can add value through the use of existing infrastructure and water inputs and reduce salination will be valuable to farmers.

Commercial Infrastructure

In many rural areas reduced access to a range of commercial services, such as banks and post offices, is having an adverse impact on rural development. Often, as banks withdraw from smaller towns, the commercial focus of the town also changes with other businesses and services moving to larger regional centres. This process erodes the infrastructure base of rural areas resulting in rural businesses and industries which have inferior access to services and are consequently at a competitive disadvantage.

Transactions Centres

To address the reduction of services in smaller rural communities the government has introduced Rural Transaction Centres. These locally run facilities which offer a range of services including postal and banking services and act as a point of contact for a range of government departments and agencies. These centres may be operated in conjunction with local businesses, open government offices, local government or community organisations. The first centres are due to open in mid 1999 and it is hoped that ultimately funding will be provided for several hundred for these in smaller rural towns around Australia.

With the aim of achieving peak productive capacity, rural businesses are increasingly adopting new technologies to improve their performance.

However, technologies such as automated farm machinery, electronic irrigation systems and computer based business management systems, require appropriately qualified technicians for implementation and servicing. The lack of such technicians in many rural may result in businesses being unable to fully embrace development opportunities and achieve production efficiencies.

Social Infrastructure

The business of agriculture requires a social infrastructure to support it - not just to provide the range of basic services that some urban Australians take for granted (banks, hospitals, doctors and supermarkets) - but to provide the intellectual and societal framework for the development of new ideas, the maintenance of a desirable lifestyle, and favourable conditions for investment.

Population loss in rural areas has serious implications for the capacity of local communities to respond to change. It is increasingly recognised that communities have a critical mass or size and that once they fall below this size, the flow-on effects of reduced economic activity can become self-reinforcing and beyond the capacity of the community to influence. Remaining members of communities come under increasing pressure leading to increased stress and a range of social problems. Such developments have a direct impact on local industries which have reduced access to human capital, business service opportunities and the valuable support networks often required to successfully manage physically remote businesses.

The Executive Director of the National Farmers Federation, Dr Wendy Craik, recently highlighted the importance of social infrastructure issues:

You can have all the glowing predictions in the world, but sustainable growth will simply not take place in regional Australia without strong, healthy regional and rural centres. Energetic, prosperous, healthy, forward looking people - and some basic services - are essential to drive growth. For our industry, those people represent a strong support base, providing supplies, banking, health and postal services.

It's a symbiotic relationship – one sector really can't grow and prosper without the other. But the gradual deterioration (to an alarming degree) of those services, and the loss of the people who used to provide them, has reached a critical level.

Agriculture and food industries are major contributors to the economic well-being of the nation accounting for approximately 12% of GDP 8% of employment and 23% of total exports. According to the Australian Food Council they are also in the order of \$64 billion (total retail sales and exports). The linkages between the performance of rural industries and the vitality of rural communities are becoming increasingly well-recognised. Communities

are the repositories of the human capital underpinning economic activity in these areas.

Agriculture employs 5.1% percent of the Australian population with many more employed in associated industries and industries relying on major agricultural inputs. The availability of a skilled workforce is imperative to industry development, while strong and vibrant rural industries are essential to the development of rural communities. Further discussion of employment issues in rural areas can be found at Attachment B.

Partnerships between communities, industries and government can encourage higher productivity and investment in portfolio industries by promoting a conducive business environment, increased market access, greater responsiveness to market requirements, and increased commitment to meeting consumer demands in relation to quality and safety. A primary industry sector which is innovative and responsive to change can and must depend on viable rural communities for access to skills, services and advice, as well as access to financial markets and information. Entrepreneurial economic activity in the sector relies on dynamic forward looking communities providing a challenging environment which stimulates creativity and outward looking management.

The Changing Focus of Infrastructure in Rural Areas

The availability of necessary levels of infrastructure in rural areas has a direct impact on portfolio industries and rural communities. The demand for infrastructure is driven by local industry and community needs; as industries and communities develop and grow to meet emerging challenges, infrastructure requirements also change. Rural areas, as with urban areas and any area seeking to expand and grow, require access to a wide range of infrastructure options, not a limited menu of services which seem appropriate. Due to a number of extrinsic factors, infrastructure options are changing in rural areas.

The rate of technological change has resulted in complex considerations regarding the range of services, such as telecommunications, which can be provided in rural areas. For example, the provision of telecommunications infrastructure and services in rural Australia reflects the underlying and fundamental factors of long distances and low population densities which all service delivery agencies face outside the metropolitan areas. While facilities such as trunk cabling, exchanges and switching facilities are built to advanced technical standards capable of handling digital data services, the lines of the Subscriber Loop (also known as the Customer Access Network (CAN), which link the exchanges to the customer's premises), are generally unable to deliver digital data services to rural and remote subscribers. The limitation of access to these services can restrain portfolio industries seeking technological efficiencies which can improve production effectiveness and provide a through-chain production focus.

Increasingly, commercial imperatives are forcing a range of business activity out of many rural areas. Commercial pressures have reduced access in many rural areas to retailers, banking services, professional services such as accounting agencies and, recreational services which provide a balance between work and lifestyle opportunities. Such developments may affect the appeal of living in rural areas, possibly leading in many cases to reductions in human capital and reducing the capacity of rural areas to fully support local industries.

Difficulties in attracting capital and investment in appropriate infrastructure are a significant issue in some rural areas. There are a number of barriers to investment in infrastructure in rural areas, ranging from lack of critical mass in regional markets, the significant public good component of infrastructure and the small scale of many projects relative to tendering costs. However, a number of rural areas are examining innovative ways to reduce the cost of infrastructure projects, such as road re-development, by developing tenders which seek provision of services across towns/shires for multiple projects. Such cooperative approaches are reducing costs for rural areas and improving the commercial viability of projects and competition.

Example - Foreign Investment in Infrastructure: Foreign investment has in the past played an important role in the development of rural Australia. Traditionally this investment came primarily from Britain and, to a lesser extent, Europe. Over the last two or three decades the United States and Asian countries, particularly Japan, have been the main sources of foreign capital.

Foreign direct investment in Australian agriculture is currently at historically low levels, accounting for less than one percent of foreign capital. The impact of the Asian financial crisis has reduced the amount of available investment capital and caused many Asian investors to reconsider their investment strategies.

Although Australia continues to remain attractive to foreign capital, Australia cannot afford to be complacent in the global competition for investment funds. Attracting foreign investment to Australia, in the face of aggressive global competition for investment, could potentially become a difficulty for Australia. While the developing world and new and emerging markets become more competitive in their relative investment climates, build improved infrastructure and train more skilled workforces, Australia must remain proactive in marketing Australia as an attractive investment destination.

Infrastructure Investment: Public and Private Considerations

Historically, infrastructure in Australia has been provided almost exclusively by government. Until the very recent past (ie: the last two decades) governments at Commonwealth and state level paid for and owned and controlled infrastructure facilities and services, often through statutory authorities or, more recently government business enterprises (GBEs). This situation occurred either because of government development programs or to correct for market failure when private financiers would not fund investments because of externalities or the length of time required before the investment generated returns.

In the past, Government ownership of infrastructure often resulted in the development of a monopoly environment. Infrastructure pricing policies were used to meet broader policy or social goals, leading to cross subsidisation between services. For example, it was common practice in some state rail services for the pricing of rail freight to subsidise passenger services or for services on the trunk routes to subsidise low-volume services on branch lines. Cross-subsidisation imposed unnecessary net costs on society as industries are unfairly penalised through having to pay inflated prices to subsidise these broader policy or social goals. The resulting higher costs adversely affect the competitiveness of firms in the affected industries and result in resource misallocation. Recent reforms in the States are addressing many of these issues.

The balance between public and private investment in infrastructure is gradually shifting, with the private sector becoming increasingly involved in the financing of infrastructure projects. This shift is a result of several changes over the past two decades, including:

- GBEs have been corporatised or privatised;
- governments have reduced their borrowings for and spending on infrastructure in order to reduce their budget deficits;
- superannuation funds have built up massive reserves and have looked for investment opportunities in infrastructure; and,
- the taxation system has been changed to make investment in infrastructure projects both feasible and more attractive.

While the increase in private investment in infrastructure projects is a positive development it would appear, however, that most of these projects, and, consequently, the majority of the investment, has been in metropolitan areas.

AFFA is concerned that infrastructure projects in rural and regional Australia may have difficulty competing with projects in metropolitan areas to attract

private investment. Essentially this is because the lower population numbers in rural areas mean that the market for infrastructure facilities and services is smaller, making investment in infrastructure either impractical or likely to yield a lower rate of return.

It appears that, beyond a few high profile proposals for new railways, opportunities for infrastructure investment in regional Australia have been fewer than for metropolitan areas because private investors are concentrating on projects that are more likely to yield a higher rate of return and these are more likely to be in areas of high population density (ie: metropolitan areas or the corridors connecting them).

Such a preference by investors could result in insufficient rollout of infrastructural investment in rural Australia. For example, the provision of telecommunications infrastructure has focused on the areas of higher profitability in the major urban areas to the detriment of Australians living in rural areas. Similarly, rural areas and even regional cities are unlikely to have the population base to make investment in a gas pipeline to those areas or centre attractive or even viable. The only way that these areas will get access to such infrastructure is if they are fortunate enough to be located near a gas pipeline to a metropolitan area and can attract investment for an affordable branch line from the major pipeline. This is borne out by the example of centres such as Dubbo and Parkes, among others in Central West NSW, which were able to get access to natural gas services by constructing spur lines from the main pipeline running between the Moomba gasfield and Sydney.

While AFFA is of the view that future funding of infrastructure in regional areas should be sourced from the private sector, the department also believes that government has a role in infrastructure provision in limited circumstances where private investment is not forthcoming due to externalities or other forms of market failure, or for strategic industry development reasons. In those cases where new investment is publicly funded, governments should consider the investment in the light of its other budgetary and policy priorities. Proposals to spend government funds should be in the national interest and will also need to be considered in a consistent long-term cost benefit framework that accounts for all costs and benefits; to ensure they address economic viability, ecological sustainability criteria and social considerations.

An alternative to direct government investment in infrastructure in rural areas in the event of market failure is for government to provide some form of incentive to attract private investment into projects which government considers are important. The Infrastructure Borrowings Tax Offset Scheme (IBTOS) is an example of such an incentive.

The IBTOS provides lenders with a tax offset (in the form of a rebate of up to 36 per cent on the taxable interest of a resident lender) to an approved infrastructure project. The rebate enables lenders to offer loans at lower

interest rates or provide borrowers with other benefits. Borrowers forgo the ability to claim the interest payments as a tax deduction. Although the scheme does not give any preference to infrastructure projects in rural or regional Australia, a number of infrastructure projects in regional areas, particularly those related to the resources sector, have shown interest in the IBTOS. Government may need to consider the development of special programs targeted to encourage private sector investment in rural areas if it considers market failure exists and that rural Australia is being unfairly disadvantaged by such market failure.

AFFA also believes that further changes to the taxation system in relation to the financing of infrastructure may be required. For example, AFFA is aware that the investment industry considers s51AD of the *Income Tax Assessment Act 1936* is a major disincentive to private investment in infrastructure. This legislation was developed at a time when there was little private investment in infrastructure, and is seen by industry as punitive, with the issue of whether government or the private sector control a particular development being subject to broad interpretation. The Review of Business Taxation has recommended options for more flexible qualifying arrangements to allow the private sector to operate what are essentially public infrastructure assets, such as toll motorways and electricity grids.

Rural Infrastructure Services - Pricing

The pricing of services in rural areas is a central consideration in the infrastructure debate. Rural areas, due to their size and physical location are often unable to influence infrastructure investment decisions and consequently have limited access to a wide range of services. These factors also impact on the price at which services can be delivered to rural areas.

The price of services to rural areas has often been controlled through the monopoly government ownership of infrastructure. Government cross-subsidisation policies have equalised prices between rural and urban areas despite higher costs per consumer in the delivery of services to rural areas; costs which have been transferred to other users – charges for sending letters between Australian capital cities are still the same as sending letters between two remote locations. Privatisation of infrastructure and increasing competitive pressures are changing equity-based price setting policies to more market orientated pricing.

The outcomes of these processes are limiting access and increasing infrastructure costs for residents in rural areas, reducing their capacity to compete with metropolitan centres and regions where there is greater infrastructure availability and often lower charges. Recent feedback from rural areas has highlighted that major causes of dissatisfaction include increasing prices and reduced levels of infrastructure investment. However, many infrastructure investments in the past, when viewed with the benefit of

today's knowledge, were of questionable long-term economic benefit and may have inadvertently encouraged unsustainable production methods. For example, underpricing and resultant overuse of water (together with vegetation clearance) has contributed to rising water tables and salinity in many parts of Australia.

Policies which help to bring about a more market oriented pricing policy can have some more beneficial effects by encouraging service provision which in the past may have been discouraged by pricing arrangements which have not provided suitable incentives for the development of new ways of providing services.

In some cases, formal arrangements exist in legislation for cross-subsidy mechanisms such as the Universal Service Obligation (USO) in the Telecommunications Act 1997. In this case, Telstra is subsidised for service losses in rural areas from funds collected from other companies in the Australian telecommunications market. Informal arrangements often exist in other industries such as rail transportation where fares are generally related to distance travelled rather than the economies of particular services.

Infrastructure and National Competition Policy

Major infrastructure facilities such as rail networks, irrigation schemes, gas pipelines and electricity grids typically have the characteristics of a natural monopoly, meaning that it would be uneconomic for more than one business to build and operate those facilities in the same area. The issue of access is about establishing arrangements which would allow service providers other than the owner to use the infrastructure facility, thereby introducing competition. The establishment of appropriate access regimes is important to industries and communities in rural areas because they would allow new service providers to use existing facilities, thus introducing competition and, ideally, improved services and/or lower rates and charges. This in turn could make Australian primary industry exports more competitive.

Under the National Competition Policy the Commonwealth and the States have agreed to establish access arrangements and have charged the National Competition Council with responsibility for overseeing the implementation of these arrangements.

Businesses have three options through which they can gain access to infrastructure under the NCP:

- . an undertaking - an infrastructure operator can make a voluntary undertaking to the ACCC setting out the terms and conditions on which access is offered;

- . a declaration - a potential new entrant can apply to the NCC to have certain infrastructure declared by the relevant Minister, after which terms and conditions of access are negotiated; and
- . a specific State or Territory regime.

The Commonwealth and the States are at varying stages in the implementation of access regimes for infrastructure which they continue to own and/or operate.

AFFA believes that fair and reasonable access arrangements need to take account of a number of factors including transparency in pricing and decision-making, economic efficiency, and independence.

Transparency is an important factor in assisting companies to determine their cost structure and identify areas where their competitiveness can be improved. Service users can benefit from transparency that separates out the costs of supplying and operating the network. Transparency is also an aid to investors since it can provide greater certainty. A lack of transparency in pricing and price decision-making reduces user confidence in the service provider and provides the opportunity for excessive charging.

Where this has not been addressed by the current reform process, rent seeking could arise. Such arrangements could reinforce previous practices where government-owned infrastructure, such as rail services for example, was used as a way of extracting economic rent from industry, leading to inefficient investment decisions. There may also be a reduced incentive for service providers (because they are already receiving substantial profit margins) to improve the efficiency of services for higher paying industries.

AFFA is concerned about the high cost to industry of negotiating access. The department is aware, for example, that in the case of the Hunter Rail Access Task Force, substantial amounts have been spent on consultants and lawyers to research and argue the case for access, in addition to the costs to companies of staff working on the issue. The level of the administrative and bureaucratic costs associated with access is a concern for small-medium enterprises, which may be able to provide rural communities with low cost alternative services, but cannot afford to seek access.

Future Rural Infrastructure – Some Considerations and Conclusions

This paper has identified the importance of infrastructure to the development of rural industries and communities. Without continued investment in appropriate infrastructure, rural areas will be unable to achieve their full potential, limiting growth and halting development at a time when portfolio industries and communities are facing unprecedented competitive, environmental and social pressures.

Opportunities to maximise investment in rural area infrastructure will be facilitated by rural areas forming strategic alliances – cooperatives or partnerships – to increase their productive capacity and profitability, and therefore, investment attractiveness. By working together, rural industries and communities, along with the various levels of government, can achieve mutually beneficial outcomes. Actions along these lines can build the economic base of rural areas and provide extended options for investment and cost sharing.

Collaborative or ‘partnership’ approaches between industry and community at all levels have the potential to create the right environment for investors and to address impediments to growth. AFFA is increasing its emphasis on liaison with industry, rural communities and other levels of government with a view to developing approaches which are responsive to industry needs along the value chain and aim to generate wealth, increase employment and provide the right environment for economic growth. All members of the partnership have a focus on and understanding of the end product and markets.

The changing focus of rural infrastructure and investment presents portfolio industries and rural communities with a range of complex challenges. Rural areas, in addressing the needs of particular industry segments and of broader communities, must compete for infrastructure investment in an environment, which is focused towards the urban centres. Although economic reform is removing the costs associated with cross-subsidisation and increasing competition, new investment is being concentrated in metropolitan areas.

Increasingly, rural areas must work together to strategically address shortfalls in necessary infrastructure and develop environments, which attract investment and foster competitive approaches; they must identify ways to make rural areas more economically attractive and relevant to potential investors. This must be also be balanced against sustainable management considerations and the need to remain attractive to investors in the long-term.

Rural areas should endeavour to secure access to a wide range of infrastructure investment, to optimise opportunities for sustainable development and provide for viable and prosperous rural industries and communities.

Portfolio industries are important not only to regional Australia but also to the economy as a whole. Without appropriate infrastructure investment, both public and private, rural industries will be less able to contribute to rural development and the broader economy. Governments should take this into consideration, along with the broader social and environmental issues, when making decisions regarding infrastructure investment to achieve profitable and sustainable rural industries and communities.

ATTACHMENT A

NATURAL RESOURCE MANAGEMENT POLICY DIVISION – INPUT TO THE AFFA SUBMISSION TO THE HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON PRIMARY INDUSTRIES AND REGIONAL AFFAIRS INQUIRY INTO INFRASTRUCTURE AND REGIONAL DEVELOPMENT

Introduction

The Department of Agriculture, Fisheries and Forests – Australia (AFFA) has responsibility for the Commonwealth's involvement in ecologically sustainable management of Australia's natural resources (land, water and associated vegetation) and in the development of economically viable rural industries. The Natural Resource Management Policy Division (NRMPD) manages AFFA's principal natural resource management programs, many of which involve investment in social and, at times, capital infrastructure. The programs are those associated with the Natural Heritage Trust (NHT) – primarily the National Landcare, National Rivercare and Murray-Darling 2001 Programs.

Responsibility for the management of land, water and vegetation is vested primarily in the State Governments by the Constitution. Federal Governments, with the agreement of the States and Territories, have provided funding for natural resource management initiatives, including infrastructure projects, over many years. The rationale for Commonwealth investment continues to be to achieve significant national benefits through addressing issues of national priority and also to stimulate associated reform processes. The benefits achieved must be public rather than private benefits and include outcomes such as improving the quality of water supply in remote rural areas, reducing environmental degradation and the provision of key infrastructure, particularly for storing water.

Present Situation

Despite significant commonwealth investment over many years, the current state of infrastructure in regional Australia for water and other natural resource management basically reflects resource allocation decisions made at the State and local government levels.

Water is a limited resource in Australia (the annual flow of the nation's largest river system, the Murray-Darling, is equivalent to the flow of the Amazon River for about 25 hours). Water management is a critical issue for both industry, particularly agriculture, and for environmental quality. Some \$90 billion has now been invested in water management infrastructure, and about 70 per cent of Australia's consumptive water use occurs in irrigated agriculture. These investments have great importance for many rural and regional communities, especially in the Murray-Darling Basin.

Competition for water supply is growing steadily but against a background where:

- Much irrigation infrastructure has been established in areas unsuitable for irrigation or utilises techniques which are unsustainable. The resulting environmental degradation is undermining the economic viability of regional industries and communities. In general, the schemes were established without provision for funding the long-term maintenance, repair and replacement of infrastructure stock, much of which is now aging and in need of repair and replacement. The high cost of infrastructure construction, maintenance and replacement itself naturally constrains adjustment, as the infrastructure needs industry and industry needs the infrastructure. In addition, the social and economic networks that follow large scale infrastructure projects result in a more complex political environment in which natural resource management decisions must take place;
- The quality of water supply and wastewater treatment in remote rural areas, where water quality does not meet accepted health standards, but where communities do not have the revenue base to install or upgrade their works and equipment to meet the required standards; and,
- Much of Australia's urban water supply and treatment infrastructure requires upgrading or replacement at great cost.

Australia faces serious issues of environmental degradation, which are imposing increasing costs on rural industries and threaten their viability and that of many rural communities. Poor infrastructure investment decisions in the past, particularly in regard to water use, have contributed significantly to the current difficulties. The water resources of the Murray-Darling Basin are stretched beyond their sustainable capacity and extraction is now subject to a cap by agreement between the Federal, New South Wales, Queensland, Victorian and South Australian Governments. Land and water salinity arising from the clearance of native vegetation and from irrigated agriculture in unsuitable areas is a serious environmental issue that not only undermines the productivity of large areas of agricultural land but also is eroding roads, buildings and other infrastructure. Many past investments in irrigated agriculture are neither ecologically sustainable nor economically viable and pose major issues for both governments and industry in funding their upkeep and replacement. In planning for the future, it is critically important to avoid the mistakes of the past.

National Policies and Approaches

A number of national policies agreed to by the Commonwealth and the State and Territory Governments are now being implemented to address national environmental and economic concerns consistent with the Council of Australian Governments (COAG) agreed National Strategy for Ecologically Sustainable Development.

Council of Australian Governments Water Reform Framework

In view of the wide ranging economic and ecological dimensions of the water industry, COAG agreed in 1994 that action needed to be taken to address the unsustainable use of water and accompanying widespread natural resource and environmental degradation. COAG agreed on a series of measures to reform Australia's water industry and to address the economic, environmental and social implications of reform.

The fundamental principles underlying the COAG framework are that water infrastructure projects should be both economically viable and ecologically sustainable. The provision of either direct or indirect subsidies, for example to meet community service obligations, should be transparent. The major elements of the reform strategy include pricing based on the principle of full cost recovery, capacity to trade water entitlements, institutional reform, and allocation of water for the environment. The implementation of this package by State and Territories is critical both to the long-term viability and sustainability of rural industries and the quality of Australia's rural environments and natural resources.

There are a range of programs which have been initiated under the reform strategy or that contribute to the achievement of the reform framework. These include:

National Water Quality Management Strategy (NWQMS)

The National Water Quality Management Strategy complements the COAG reform framework and involves the development and industry acceptance of water quality standards, measures, monitoring techniques and catchment management policies which will contribute to ensuring the sustainable use of the nation's water resources and the maintenance of environmental values.

National Competition Policy

In April 1995, the water industry reforms were drawn more closely into the micro-economic reform process when COAG linked State implementation of the water reforms to the National Competition Policy (NCP) and associated second and third tranche competition payments. The requirements of both the COAG water reform framework and the NCP will ensure the dual goals

of a more ecologically sustainable and an economically efficient water industry are achieved in a complementary manner.

The MDBC Cap on Diversions

In response to continuing growth in water diversions and declining river health, the Murray-Darling Basin Ministerial Council (MDBMC) agreed to place a cap on diversions in 1995. The cap was initially introduced on an interim basis, with the final cap taking effect from 1 July 1997. All States have taken action to progress the Council's decision and processes have been introduced to audit and review States' implementation of capping arrangements. The decision to cap diversions was prompted by Council's concerns both in relation to declining river health as well as the impacts of increased diversions on the security of supply for existing users.

The cap itself does not attempt to reduce Basin diversions, but prevents them from increasing. With the cap in place, new developments are allowed, provided that water for them is obtained by improving water use efficiency or by purchasing water from existing developments. The cap effectively establishes a new framework for water sharing in the Basin, and will require changes to the way the water allocation system is managed.

Individual state agencies are responsible for the implementation of the cap and, as with the COAG reforms, different States are adopting different management strategies. Potential benefits as a result of the cap include:

- A greater emphasis on achieving water use efficiencies as a means to obtain water for further development;
- A subsequent reduction in accessions to the groundwater table with fewer consequent problems from waterlogging and soil salinisation;
- A better framework for trading in water entitlements both within States and between individuals in different states; and,
- Less deterioration in water quality and river health generally.

Other Intergovernmental Activities

Coordination of intergovernmental activity on water issues, in which the Commonwealth commonly takes a leadership role, occurs in a number of fora. For the AFFA Portfolio, the Agriculture and Resource Management Council of Australia and New Zealand provides high level coordination at ministerial level. Beneath the Council is the Standing Committee on Agriculture and Resource Management, with the Sustainable Land and Water Resources Management Committee being the main committee dealing with water issues at an operational level.

Commonwealth Government Policies and Approaches

The Federal Government is implementing a number of programs addressing natural resource management issues that the Government considers to be national priorities.

Natural Heritage Trust

In place since 1997, the Trust serves as the vehicle through which the Commonwealth Government is providing \$1.25 billion over five years to help accelerate the shift to ecologically sustainable development in Australia. The Trust incorporates an integrated approach to the conservation and sustainable management of Australia's land, water and biodiversity. Trust other is directing funding largely at activities that encourage further involvement stakeholders and that enable the barriers to sustainable land, water, and biodiversity management to be overcome.

Through the Agriculture, Fisheries and Forestry Portfolio, Trust funding is being directed to a number of Commonwealth programs and initiatives including the National Landcare Program, National Vegetation Initiative, National Rivercare Initiative, the Farm Forestry Program, Murray-Darling 2001, the Property Management Planning Campaign, the National Weeds Strategy and the National Feral Animal Control Strategy.

Most Trust funding managed by AFFA goes to rural and regional Australia, supports significant employment in state regional offices and landcare groups and results in the supply of valuable technical support, information and training. Support for landcare provided from the Trust and the National Landcare Program is an important element of regional community support networks.

National Land and Water Resources Audit (NLWRA)

The Audit is being funded through Natural Heritage Trust (NHT) and primarily aims to benchmark the condition of Australia's land, vegetation and water resources. The Audit is scheduled to be completed by 2001. Among its outcomes will be the establishment of a valuable database to enable managers to better understand water requirements and how they measure up against availability in terms of quality, quantity and locality.

Land and Water Resources Research and Development Corporation (LWRRDC)

The Corporation undertakes targeted research to improve our capacity to manage Australia's natural resources sustainably. Its activities are closely linked to NHT programs to ensure that maximum national benefit is derived

from the investment of public funds and that solutions proposed contribute practically to the long-term sustainable management of the nation natural resources.

Great Artesian Basin (GAB) Initiative

The Government made a commitment in the 1998 election campaign that \$30 million would be made available to assist with the implementation of a management plan, which will facilitate progress in restoring groundwater pressures in particular areas of the GAB. This will support pastoral enterprises and mining/extractive industries in or around the Basin and will be done in partnership with State/Territory Governments. The objective is to affect lasting changes in attitudes, water use patterns and grazing management practices, all of which is consistent with the reform strategy.

AFFA's Policy Approach

While there are issues directly related to water infrastructure in regional Australia covered by the policies and programs administered by AFFA, it is important to note that the main focus of these policies and programs is on protecting the productive capacity of the resource base on which much of regional Australia depends for economic prosperity.

For managing its projects and programs, and to accord with the national strategies for natural resource management such as the COAG water reform strategy, AFFA has developed the following criteria:

- Natural resources should be managed within the capacity of the resource. Given the limitations on government resources at all levels, the priority for governments in natural resource management must be to address the causes of degradation rather than the symptoms, and to provide land owners and managers with the skills and information they need to implement new and improved management practices;
- Industries must be economically viable, internationally competitive and ecologically sustainable. They should not be reliant on the continued provision of government assistance either directly or indirectly;
- Commonwealth investment should address issues that are nationally significant and provide substantial public as opposed to private benefits;
- As most natural resource management issues affect whole catchments and regions, projects are expected to be based on a catchment or regional management plan that addresses the full ranges of causes and effects, including economic, biophysical and social causes and impacts;

- Commonwealth funding should be catalytic rather than on going, providing the initial impetus required to implement projects or overcome the impediments to more sustainable management. Where long-term funding is required, this is expected to be provided by State and local governments, communities and industries in accordance with the flow of benefits from the investment;
- Where possible Commonwealth government funding should be a catalyst for reform of institutional arrangements, market mechanisms, management practices and other impediments to more productive and sustainable use of natural resources; and,
- Commonwealth funding will normally be conditional on funding from state and local governments and from industry and communities, consistent with the polluter pays and beneficiary pays principles. Projects should also result in reforms to market systems, management practices and institutional arrangements required to promote more efficient resource allocation and use.

In summary, therefore, AFFA submits that in respect to infrastructure for natural resource management, investments should reflect the principles of Ecologically Sustainable Development and should be primarily market driven and subject to the disciplines of market forces, with governments (apart from setting standards and other boundary conditions) intervening only where these forces do not provide appropriate outcomes. Where the Commonwealth Government does intervene, it should be on the basis that:

- Natural resource management is primarily a state and local government responsibility;
- Where national interest considerations provide the basis for Commonwealth involvement, the investment should only proceed where the principles that provide for long-term ecological sustainability and economic viability are satisfied; and,
- Where Commonwealth investment occurs it should be used to lever necessary economic, management and institutional reforms and to attract additional investment from the relevant government jurisdictions and private stakeholders and beneficiaries.

Example

The following project is indicative of those funded by NRMPD administered programs.

The Wakool Land & Water Management Plan (LWMP) covers the Wakool and Tullakool Irrigation Districts of the Murray Catchment. High watertables and land salinisation have been a feature of the area for over four decades. The Wakool LWMP brings together a number of activities to form a strategy to counter these problems. Without the Plan's implementation watertables would rise at a faster rate and a larger area would be subjected to these high watertables. As a result more salt would be brought to the surface, leading to lower productivity levels on farm and seepage into the Murray River and other watercourses.

The MD2001 program has contributed significant funding to the establishment of LWMPs. The Wakool LWMP consists of six integrated components (on farm practices, subsurface drainage, surface drainage, infrastructure, floodplain management and structural adjustment) and its full implementation is estimated at a total cost of \$60 million over the next thirty years. Murray Irrigation Ltd is responsible for the LWMP's implementation in Wakool.

Amongst the most effective element of the Plan has been changes to farm practices, with on farm practices and works contributing most to reducing increases in the watertable. Farmers' awareness is being targeted through education and best management practices identified to implement changes.

EMPLOYMENT IN RURAL AREAS

(Adapted from the Department of Primary Industries and Energy submission to the Senate Employment, Education and Training References Committee Inquiry into Regional Employment and Unemployment)

SUMMARY

The proportion of the Australian population living in rural areas has increased slightly since the mid-1970s, reversing the trend towards urbanisation. Population share of non-urban areas of Australia increased from 13.9 percent to 14.7 percent between 1976 and 1991 with similar trends across most States.

Manufacturing, wholesale and retail, health, education, community service and government sectors, along with portfolio industries, are significant employers in rural areas.

In 1996-97 agriculture employed 5.1 percent of the Australian population and mining employed approximately 1 percent. Industries relying on agriculture and mining for major inputs account for a further 6.5 percent (approximately) of the Australian workforce.

Major trends in employment in agriculture are a declining share of total employment with changes in composition towards a greater share of part-time work and female employment; a shift towards wage and salary earners and unpaid helpers away from employers and the self employed. There has been a significant increase in off-farm employment, including to supplement or cross-subsidise income from the farm.

Rural employment markets are relatively 'thin' labour markets with little diversity of employment opportunities, impeding the ability of rural economies to deal with external shocks and growth opportunities. Although there is growing awareness of opportunities to value-add, this has not taken off and a new environment fostering the development of business, management and marketing skills is required. There is also limited infrastructure, services and investment capital in rural areas to support major business initiatives supporting employment.

Increased infrastructure investment and empowerment of communities to address local business and employment issues would support improved employment outlook.

Around one third of the indigenous population resides in rural areas, comprising approximately 3.5% of the total rural population. Portfolio and mining industries are prominent employers of Aboriginal and Torres Strait Islander people in remote areas.

The relatively poor levels of education and skills in indigenous communities act as an employment barrier, and access to training is more difficult in rural areas. There are opportunities to establish new enterprises where Aboriginals and Torres Strait Islanders can offer a comparative advantage in the market place, and in production for domestic consumption by indigenous communities themselves.

INTRODUCTION

The proportion of the Australian population living in rural areas has increased slightly since the mid-1970s, reversing the trend towards urbanisation. Population share of non-urban areas of Australia increased from 13.9 percent to 14.7 percent between 1976 and 1991 with similar trends across most States (Borland, 1998).

Employment in the Agricultural Sector

Australian Bureau of Agricultural and Resource Economics' (ABARE, 1997) data indicate that total employment in agriculture in 1996-97 was 427,000, including 380,000 employed in the farm sector. This equates to 5.1 percent and 4.5 percent of total employment respectively. The major contributors to employment in the farm sector were the grains, sheep and beef cattle industry (206,000), horticulture and fruit industry (87,900) and dairy cattle industry (40,000). The other major contributor to employment in the agricultural sector was services to agriculture (22,700).

Unless otherwise stated in this attachment, agriculture here includes farming, fishing, forestry, hunting and services to agriculture.

Persons Employed in Agriculture, Forestry, Fishing and Hunting

	'000			
	1993/94	1994/95	1995/96	1996/97
Agriculture				
grains, sheep and beef cattle	217.1	201.0	203.3	206.0
horticulture and fruit	80.5	77.6	93.7	87.9
other crops	11.6	17.1	17.0	18.6
dairy cattle	22.6	34.4	30.5	40.5
poultry	10.3	10.1	11.9	10.3
other livestock	21.2	17.4	16.5	16.3
Sub Total	363.3	357.5	372.9	379.5
Services to agriculture	19.8	18.7	18.1	22.7
Forestry and logging	11.3	12.4	11.5	11.1
Marine fishing	9.4	10.6	9.5	9.2
Aquaculture	4.4	4.3	9.3	3.9
Hunting and trapping	0.5	0.9	0.6	0.6
TOTAL	408.7	404.4	421.9	427.0

Source: ABARE, *Australian Commodity Statistics, 1997*.

A further 181,000 are employed by the food and beverage manufacturing sector, which relies on the agricultural sector for its major inputs. (Commonwealth of Australia, 1997). Other industries such as the textile, clothing, footwear and leather industry (employs 105,000) and the wood and paper product industry (employs 64,000) also rely on the agricultural sector for its inputs.

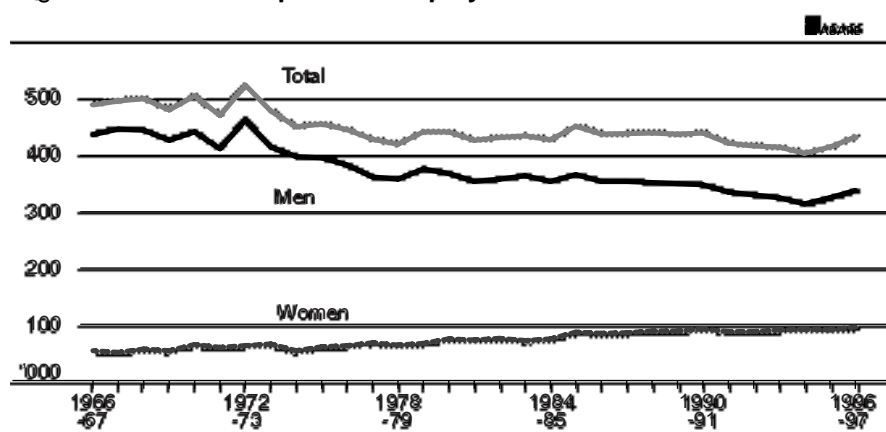
Long-term data (ABARE, 1997) indicate employment numbers in agriculture have declined over the past three decades, from 486,000 in 1963-64 to 427,000 in 1996-97. This masks a number of fluctuations such as a steady decline up to the late 1970s as capital was substituted for labour, but subsequently an increase during the 1980s as resources were moved into livestock industries (Garnaut, Lim-Applegate and Rodriguez, 1997). The percentage contribution of agriculture to total Australian employment has declined steadily from 11.0 percent (9.5 percent for the farm sector) in 1963-64 to 5.1 percent and 4.5 percent in 1996-97 respectively. This reflects an increase in the Australian population and workforce (Garnaut, Lim-Applegate and Rodriguez, 1997).

These trends have been accompanied by a trend towards fewer and larger farms and increased productivity. Farm numbers fell from 201,000 in 1963-64 to 115,430 in 1995-96. Over this time the total areas of farms has also fallen from 479,400 to 465,200 hectares. However, this masks developments in different industries such as expansion of grape growing and development of intensive feedlots in the beef industry.

Average hours of work per week for all workers have also steadily declined since the mid 1960s. On this basis, employment in terms of full-time equivalents (40 work hours a week) has declined markedly (Garnaut, Lim-Applegate, Rodriguez, 1998). There has been an increasing trend towards part-time work for women, and to a lesser extent for men.

In the broadacre and dairy industries in 1994-95 each farm business employed an average of 4.3 persons (full-time and part-time), or 2.4 full-time (Garnaut, Lim-Applegate, Rodriguez, 1997). There has also been a trend towards increased dependence on unpaid family helpers 11,200 in 1985-86 to 25,600 in 1996-97. This followed a decline from 25,700 in 1966-67 (ABARE, 1997). There has also been an increase in casual labour and an increase in off-farm work (NFF, 1995 and Powell, 1985 in Borland 1998).

Figure 1a: Full time equivalent employment on farms



Other analysis of more recent data, however, indicates that agriculture is the fastest growing employment sector in Australia over the past three years as a result of growth of agricultural exports, particularly in non-traditional areas of agriculture such as horticulture products, wine, dairy, canola, cotton, sugar, fisheries products, live animals, aquaculture products, rice, flowers, tea and coffee (Chudleigh, 1998).

Rural Employment in Australia, four years to 1996/97

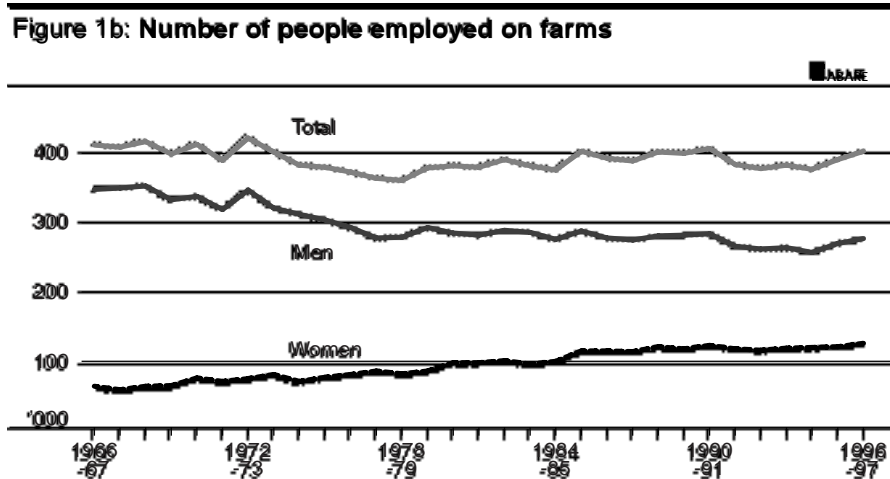
	1993/94	1994/95	1995/96	1996/97
Employers and self employed	227.5	228.9	230.1	228.4
Wage and salary earners	128.7	148.6	165.0	173.1
Unpaid family helpers	26.8	26.9	26.8	25.6
TOTAL	383.0	404.4	421.9	427.0

Source: ABARE, *Australian Commodity Statistics, 1997*.

Chudleigh (1998) further suggests that well qualified employees in the agriculture sector will be in high demand into the next century as agriculture continues to change. Many of the growth industries require technical and management expertise and require processing before leaving Australia. Increased technology and processing and a demand for a greater market focus will require management, commercial and technical skills.

Of the 427,000 currently employed in the agricultural sector, 228,400 are categorised as employers and self-employed and 173,000 as wage and salary earners. A further 25,600 were unpaid family helpers (ABARE, 1997). This represents a shift towards wage and salary earners and unpaid helpers and away from employers and self-employed (Borland, 1998).

Another long-term trend in the composition of the agriculture labour force is an increase in the share of female employment and part-time employment since the mid-1980s. There has also been a decrease in male employment over the same time. These trends are evident in other industries. There has also been a trend towards an older workforce in agriculture since the mid-1980s, more so than in other industries. The level of educational attainment has also increased. Average job tenure is also longer in the agriculture industry compared to other industries (Borland, 1998).



An important feature of employment of farm families is the growth in off-farm employment. Earnings from off-farm wages and salaries comprised 30 percent of broadacre family income in 1994-95 (drought year). One in three spouses of broadacre farm operators now have off-farm wage or salary employment. Participation in off-farm employment by farm operators on broadacre and dairy farms has varied between 12 percent and 20 percent in the last 15 years. The participation rate for spouses has increased from 18 percent in the early 1980s to 34 percent currently (Garnaut, Lim-Applegate, Rodriguez, 1998).

Garnaut, Lim-Applegate and Rodriguez (1998) also identified characteristics of farmers with off-farm employment from 1994-95 data and found that they tended to be younger and have higher formal education than those who did not work off-farm. Their farms also tended to be smaller scale but less reliant on income from off-farm investments, businesses and social security payments. Most spouses of farm operators with off-farm employment worked in town but less than half the of the farm operators themselves did so, with a substantial number working on other farms, some whose employment took them from place to place while others ran a business from home. The data also indicate that spouses of farm operators earning wages and salaries in the non-farm sector were concentrated in professional jobs in education, health and community services, while operators were more likely to be engaged in the agriculture, forestry and fishing sector, followed by constructions, sales and transport and storage.

The increase in off-farm employment among the farming community may reflect a number of factors, including the desire by farming spouses for independence and fulfilment through work as well as maintenance of higher standards of living (99 percent of farm operator spouses were female).

Opportunities for employment may be affected by factors such as regional diversification in agriculture and other industries as well as other locational factors, such as distance from town. For many farming families, off-farm income is often used to supplement or cross-subsidise farm operations where farm assets generate low or negative returns on investment.

While the factors governing the extent and type of off-farm employment are complex, these data illustrate just some of the linkages between agriculture, communities and other industries in the rural sector.

Rural/Regional Employment and Unemployment

On average, unemployment is nearly 2 percent higher in regional Australia than in metropolitan Australia. However, differences across regions within rural and urban areas are much larger than differences in average rates of unemployment between urban and rural areas. Differences in the unemployment/population rate and the rate of unemployment between urban and rural areas tend to be fairly stable over time. An exception is the most recent economic recovery (and in particular, the period between August 1995 and August 1997) where changes in unemployment and unemployment outcomes have been noticeably worse in rural than urban areas in New South Wales and Victoria (Borland, 1998).

Unemployment rates range from just over 6 percent in the Darling Downs to over 13 percent in the Wide Bay region (DEETA, 1997). There is also a high level of variation in labour market participation rates in regional Australia as shown in the table below. In the selected set of regions, Wide Bay had the lowest participation rate (56 percent) and Northern Western Australia the highest rate (72 percent).

Unemployment and Participation Rates of 12 Australian Regions September Quarter, 1997

Area	Unemployment Rate	Participation Rate
Qld Darling Downs	6.1	66.3
WA North and East	6.3	72.4
SA South and East	7.6	67.3
NSW West	8.0	60.9
NSW Riverina	8.2	62.2
Qld North	8.4	69.5

Vic Central	9.7	58.5
NSW South and East	9.8	59.3
SA North and West	10.6	61.1
Tas North and East	11.4	57.6
Vic Gippsland	12.5	58.7
Qld Wide Bay	13.1	56.9

Source: DEETYA Small Area Labour Markets, September 1997

Although the causes of employment and unemployment in rural areas are complex and not fully understood, there are some clear differences between rural and metropolitan areas which may be expected to impact on employment outcomes.

Share of Employment - New South Wales by industry, by region, 1996

Industry	Share of employment in region, by industry		Share of employment in industry, by region	
	Sydney metropolitan %	Non metropolitan %	Sydney metropolitan %	Non metropolitan %
Agriculture	0.7	10.8	10.7	89.3
Mining	0.2	2.1	15.7	84.3
Manufacturing	14.0	11.9	68.5	31.5
Wholesale, Retail	21.4	21.0	65.2	34.8
Health, education, community service, government	19.2	21.2	62.5	37.5
Finance, property, business services	17.9	8.6	79.3	20.7
Accommodation	4.4	5.3	60.2	39.8
Transport, storage	7.6	5.8	70.8	29.2
Other	14.6	13.3		
TOTAL	100.0	100.0	64.8	35.6

Source: ABS Labour Force, New South Wales, Cat. No. 6203.1, February, May, August, November, Canberra

Note: Percentages are averages over February, May, August and November.

Note: Sydney non-metropolitan includes other urban areas as well as rural areas.

In New South Wales, the greatest share of employment in agriculture is located in non-(Sydney) metropolitan areas, including rural and regional urban centres. Manufacturing, wholesale, retail, health, education, community service and government sectors provided a more significant share of employment in non-(Sydney) metropolitan New South Wales although two-thirds of employment in these industries were located in the Sydney metropolitan area.

Borland (1998) identifies a number of key characteristics of rural labour markets, which distinguish them from urban labour markets:

- . there are large differences between different rural 'local' labour markets in terms of size of population and the main economic activity
- . most rural labour markets have small population size and low population density relative to urban labour markets
- . a high level of specialisation with individual labour markets likely to be mainly dependent on a single economic activity (eg agriculture, mining or tourism). This factor in particular makes it difficult for local rural labour markets to adjust to 'shocks' such as the closure of a mine or abattoir
- . composition of employment differs from rural labour markets; for example, a higher proportion of total employment in rural labour markets is accounted for by self employment than in urban labour markets.

Economic diversity helps regional economies deal with external shocks and growth opportunities. Compared to a more homogenous regional economy, a resilient regional economy could be expected to have higher employment because the lower risk of regional recessions may lead to greater levels of local investment. Greater diversity of employment opportunities also achieves a better match of skills to work so a diverse regional workforce may be more productive. Given imperfect labour mobility between regions, this may increase employment. Generally, economically diverse regions do have lower unemployment.

Specialisation of economic activity is based on a region's comparative advantage in producing a traded good or service. Comparative advantage is based on initial resource endowments, but this advantage becomes self-reinforcing as economic agents choose locations based on previous decisions of other economic agents. In terms of generating economic diversity, this works to the advantage of large urban centres and to the disadvantage of small or regional centres. Regional economies often therefore do not have a diversified economic base and therefore lack resilience.

Resilience may not be characteristic of a regional market economy for standard market failure reasons. Law and order, for example, is a desirable quality which is attained by public action (policing) because law and order has 'public good' qualities, which means that individuals are not excluded from enjoying the benefits and extra individuals cost no extra money to include. Similarly, resilience has these public good qualities: some of the benefits flowing from diversifying the economic base of a region will be external to those people actually doing the diversification. There is a regional aspect to these qualities - metropolitan areas cost more to police than regional areas, regional areas may need more specific action to enhance their resilience.

Borland (1998) has identified a number of added adjustment pressures on rural labour markets, Vis a Vis urban labour markets. Trade liberalisation has had a short-term impact of reducing employment in the textile, clothing and footwear manufacturing industries. A significant share of employment in these industries was located in rural regions. However, the longer-term impact is likely to be positive overall for rural and regional Australia as industries become more competitive on international markets.

Reform of the government sector in some states has had an impact, for example Victoria where local governments have been amalgamated and there have been reductions in public infrastructure employment. Deregulation of agricultural markets with pressures for increased productivity has also been a factor. For rural/regional communities, which lack diversity and resilience, these events can be difficult for the community to overcome. This again highlights the need to examine how transition in the event of significant events, such as business closures, can be better managed. It also highlights the importance of infrastructure in regional Australia, which assists rural communities to attract investment and build resilience for changing economic environments.

The Australian meat processing sector has been hampered by over-capacity, low profitability and an unwillingness to undertake capital expenditure to upgrade plant and equipment. Some of our major overseas competitors have much higher throughput and lower cost structures than Australia. In many cases, plants failed inspections, for example by US health inspectors. Other reasons have included increases in stock prices and increased competition. There has also been a shift from multi-species abattoirs to single-species abattoirs with a greater production capacity. Restructuring in the industry has been necessary to enhance its international competitiveness.

There are approximately 200 abattoirs in Australia, employing some 15,000 people. There have been three major abattoir closures in recent times: Gunnedah, Grafton and Blayney. These closures also have flow-on effect to the rural community through loss of employment and income from the town with potential further loss of other services and infrastructure. This highlights the need to examine the role of governments in assisting

communities to re-establish in the event of sudden loss of sources of employment and income as well as services and infrastructure.

Developments in the meat processing industry highlight the flow-on of industry adjustment on rural communities and highlight the difficulties in making transition arrangements in the event of significant business closures.

Employment of Indigenous People

In 1991, the Aboriginal and Torres Strait Islander population was estimated as 265,459 people, or 1.6% of the total Australian population. Around one third of the indigenous population resides in rural areas, comprising approximately 3.5% of the total rural population (National Aboriginal and Torres Strait Islander Rural Industry Strategy, 1997.)

Although DPIE is not primarily responsible for programs related to the employment of indigenous people, its portfolio industries (eg cattle and fishing) are prominent employers in remote areas. Around 3000 Aboriginal and Torres Strait Islander people are employed in portfolio and mining industries with many more involved through Community Development Education Projects (National Aboriginal and Torres Strait Islander Rural Industry Strategy, 1997).

The National Aboriginal and Torres Strait Islander Rural Industry Strategy developed by the Aboriginal and Torres Strait Islander Commission (ATSIC) and AFFA notes that the relatively poor levels of education and skills in indigenous communities act as an employment barrier and that access to training infrastructure is more difficult in rural areas. While there are limited opportunities for increasing employment of indigenous people within existing industries at a time when wider rural employment is contracting, there are particular opportunities in establishing new enterprises where Aboriginals and Torres Strait Islanders can offer a comparative advantage in the market place, and in production for domestic consumption by indigenous communities themselves. Indigenous-owned rural industries are extremely diverse in geographical location, size, objectives, type of enterprise and forms of ownership. In relation to the rural holdings of Aboriginal and Torres Strait Islander people, strengthening production efficiency and diversifying forms of production will also assist in maximising available opportunities.

FURTHER REFERENCES

The following references provide further analysis of employment issues affecting the rural sector:

Garnaut, J., Lim-Applegate H, and Rodriguez G. "Employment market for farm families - survey of households in the broadacre and dairy industries" in *Proceedings of the National Agricultural and Resource Outlook Conference, Canberra 3-5 February 1998, Vol 2.*

Borland, J., "Rural labour markets in Australia - a review" in *Proceedings of the National Agricultural and Resource Outlook Conference, Canberra 3-5 February 1998, Vol 2.*

Other References

ABARE (Australian Bureau of Agricultural Research Economics) 1997, *Australian Commodity Statistics 1997*, Canberra.

ABARE (Australian Bureau of Agricultural Research Economics) 1998, *Australian Commodities, March Quarter 1998*, Canberra.

ABS (Australian Bureau of Statistics) 1997 *Labour Force, New South Wales, Cat. No. 6203.1, February, May, August, November*, Canberra.

Australian and Torres Strait Islander Commission (ATSIC) and the Department of Primary Industries and Energy, 1997, "National Aboriginal and Torres Strait Islander Rural Industry Strategy."

Chudleigh, J. 1998. *Agricultural Industries Provide the Fastest Employment Growth Area in Australia.* University of Sydney.

Commonwealth of Australia, 1997, *Competitive Performance, Case Studies in Australian Agribusiness Experience.*

Department of Employment, Education, Training and Youth Affairs, 1997, *Small Area Labour Markets, September 1997*, Canberra.

Ferguson, J.,1995, *National Focus - The Australian rural labour market*, National Farmers Federation, Canberra.