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Agricultural and resource economics and economic development in Aboriginal communities*

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Economic development is seen as the best way for Aboriginal communities to improve their welfare and lessen the considerable disadvantages they suffer. Unfortunately, the economics profession has shown little interest in their plight. Agricultural and resource economists have much to offer in helping to foster economic development in Aboriginal communities throughout Australia. Suggestions are made as to various ways in which our particular interests and experiences can hopefully be applied.

1. Introduction

I felt disappointment that in the plenary session at last year's annual conference, where the speakers put forward their ideas about the major research and policy issues to be tackled by the profession in the coming years, there was no mention of the problems faced by Aboriginal communities in Australia.¹ There is no doubt that Aboriginal communities and most Aborigines are significantly disadvantaged with respect to most other Australians and Australian communities – a disadvantage that I would argue is basically due to lack of economic development.² I believe that the

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¹ Reference to Australian Aboriginal communities in the present paper should be read as including Torres Strait Islanders.

² In terms of what I consider to be the best indicator of economic development of a society, life expectancy, Aboriginal disadvantage is shown by the fact that Aboriginal males and females have average life expectancies 20 years less than the averages for Australian males and females.

agricultural and resource economics profession can make a considerable contribution to the improvement of their circumstances through the advice it can provide about economic development. Our research and practical experience in areas such as agricultural policy and farm management, natural resource management, and institutional development, and the increasing amount of work our members are doing in developing countries, can be usefully applied to the issues that I believe are most relevant to fostering economic development in Australian Aboriginal communities.

I do not claim that the disadvantages suffered by Aborigines are solely due to the lack of economic development of their communities or their lack of access to economic opportunities available in the wider economy. But without providing any robust evidence, I would argue that a major part of their disadvantage is for this reason. Moreover, in making this claim, I would argue that discriminatory attitudes have contributed to their present plight and that a substantial argument can be made for special efforts in their favour to overcome their present social and economic disadvantages.

Given the enormity of the situation, there has been surprisingly little work by the wider economics profession on issues related to Aboriginal disadvantage in Australia. I suspect that this reluctance has stemmed in part from the fact that it is a politically sensitive area and also one that is subject to academic jealousies. However, if this is the case, such sensitivities should be ignored in the interests of the Aboriginal peoples, especially if, as I believe, economists, and agricultural and resource economists in particular, have so much to offer.

Given the large areas of land that Aboriginal groups have gained control over in one form or another in recent years, there are very important questions about how this land will be managed, whether for agricultural or other activities. Agricultural and farm management economists can contribute a great deal through advice on how best to manage these lands. In many cases these lands are highly susceptible to environmental problems and natural resource economists can help with advice on that topic. There is the high probability that further mineral resources will be discovered on Aboriginal land, which has implications for management of the resource rents accruing from mining projects. Resource economists can advise on the design of mining contracts, mineral taxation policy and management of resource revenues such as through trust funds. The form of land tenure under which most of this land is presently held is customary ownership or common property. In recent years, a great deal has been learnt about the management of common property resources, and when collective action may be the best way to manage externalities. But land tenure has evolved in all societies, and it will be no different in Australia where, since Mabo, the tenure over considerable areas of land has changed from crown land,

individual leasehold, and individual freehold to common property under Aboriginal ownership.³ However, common property tenure and management has not proved to be the best form of management for growth in productivity. Therefore, as in other countries, over time there will be pressure for change to some form of individual land title. This kind of change is a basic form of institutional change. Agricultural and resource economists have largely led the way in Australia in analysing how the new institutional economics can assist in creating a better basis for economic development in lower-income countries, and this knowledge can be very usefully applied in Australia.

2. A development issue

As I said, the basic premise of this paper is that the terrible state of Aboriginal community living standards, particularly in rural areas (as shows up in social indicators such as life expectancy, infant and maternal mortality, and the incidence of disease), is primarily the result of a lack of economic development in these communities. Further, I believe that the best means of substantially improving their welfare will be through economic development in their communities. This is a contested premise. 'Developmentalism' is almost used as a term of abuse in some social science quarters in Australia in discussions about policies relating to Aborigines. But the past emphasis on welfare policies has not led to any significant improvement in their well-being – which is reflected in the fact that up to 90 per cent of the income of Aboriginal communities in the Northern Territory (NT) comes from the Commonwealth and NT governments (Pritchard and Gibson 1996). Some may wish to argue that different welfare policies would lead to substantially better results (e.g., ATSI Social Justice Commissioner 1994). I disagree. To some extent, rural Aboriginal communities have a choice as to whether they wish to undertake economic development; those in urban areas do not. But the choice appears highly constrained by the freedom of people to leave rural communities, the availability of information about what is happening in the wider world, and the continuous comparisons of their welfare with that of the rest of Australia and other societies.

Globally, the evidence is that substantial improvement in the welfare of poor societies only occurs through, initially, provision of clean water and sanitation and control of pests and diseases, and later, through greater access to income-earning assets such as education and land, and opportunities to access other markets. But these are the direct and more highly

³ Australian High Court decision in *Mabo v Queensland (No. 2)* delivered on June 3, 1992.

visible relationships. The important question is how to set these processes in place and sustain them? It is of interest why the approach to improving the welfare of rural Aboriginal communities in Australia has been so different from that adopted in what are termed the developing countries? As with Native American Indians in the USA, the Aboriginal population in Australia makes up only a small percentage of the total population of a high-income country. For this reason, there is a tendency towards adopting the seemingly 'easy' solution to their problems through income redistribution measures, but which creates difficult-to-overcome problems of welfare-dependency, as so well described by Noel Pearson. This tendency is underpinned in Australia by the predominance of a democratic socialism ethos that gives preference to government-based solutions over solutions relying on individual effort and enterprise. Poor countries cannot afford income redistribution solutions to what is generally a matter of mass poverty. In their case, the only solution to poverty is economic development of the whole country. In a situation such as in Australia, where the relatively small disadvantaged group has been seen as being inferior in some way – as well as being disadvantaged in terms of income, education, and health – a different set of institutions to that available to the majority appears necessary in order to provide an appropriate environment for economic development to take place. However, as might be expected, there is resistance by the wider society to the establishment of a special set of institutions for the minority group.

Glenn Loury (2001), of Boston University, has eloquently argued the case for affirmative action for African–Americans in the United States. He distinguishes between racial discrimination and racial stigmatising. Because he sees that African–Americans have been stigmatised to such an extent as to adversely affect how others see them in relation to their work and other capacities, he argues that race blindness, or 'colour blindness', in policies is not sufficient to overcome the social disadvantage they face. He therefore argues for 'race egalitarianism', i.e. because of an unjust history, special efforts should be made to reduce inequities of wealth and power between African–Americans and other groups. To quote Loury (2001, pp. 40–41):

Discrimination is about how people are treated; stigma is about who, at the deepest cognitive level, they are understood to be. As such, these distinct ways of framing the problem of racial inequality lead to radically distinct intellectual and political programs. A diagnosis of discrimination yields a search for harmful or malicious actions ... using the law or moral suasion to curtail or modify these actions. But seeing stigma as the disease inclines one to look for insidious habits of thought, selective patterns of social intercourse, biased processes of

social cognition, and defective public deliberations when seeking a cure. Here the limits of conventional legal action and moral suasion, and the need for deeper and more far-reaching structural reform, come clearly into view. To be sure, ... reform should redress resource disparities between groups. ... This kind of reform, while necessary, is far from sufficient ... achieving the elusive goal of racial justice requires that we undertake ... to eliminate the objective disparity in economic and social capacity between the race-segregated networks of affiliation that continue to characterize the social structure of American public life ...

I believe that the economic and social disadvantage of Australian Aborigines will not be overcome without the establishment of special institutions that take account of their special situation within the Australian society. The institutions that I am talking about are essentially institutions that directly assist them to participate in economic activities. As well as these kinds of changes, Loury is talking about the need for change in much more complex social institutions. I have no doubt that similar social structural changes are also needed in Australia. But that is not the subject of this paper.

For Australian Aborigines the acquisition of land is important for the economic development needed to improve their welfare. However, as Altman (1995) – an Australian economist who has devoted a career to improving the welfare of Aboriginal communities – recognised:

An economic takeoff by the indigenous sector, Australia-wide, will not occur because of native title. Land alone cannot guarantee economic development: capital accumulation, human capital and entrepreneurial expertise will also be needed to promote the development of the indigenous land base. (p. 298)

I would argue, however, that even these other factors are not sufficient for economic development to take place. Over the past 50 years, the theoretical understanding of the economic growth process and the implementation of economic development strategies have undergone huge changes (Duncan and Pollard 2002). Following growth theorists such as Harrod (1939), Domar (1946) and Solow (1956), development assistance for many years (and still, in some agencies) was based on the notion that the lack of financial and physical capital was the main reason for countries being poor. Hence, the multilateral lending agencies and aid agencies in high-income countries were set up to transfer savings from rich to poor countries. Later, following Becker (1964), economic growth theory and developmental practice

focused also on health and education to build human capital. By the early 1980s, the realisation that so many of the projects that they had funded had failed saw the multilateral agencies adopt so-called Structural Adjustment Programs, based on the premise that the policy environment in the developing countries was not conducive to project success. But Structural Adjustment Programs have not led to much better growth performance (Burnside and Dollar 1997). In the 1990s, following North (1990), and more recently Olson (1996) and De Soto (1989; 2000), the focus of developmental assistance has shifted – at least in some quarters – to the creation of institutional frameworks in which physical and human capital and innovativeness will flourish.

But changing and creating basic economic and social institutions within a society is very difficult. Both North and Olson were pessimistic about the likelihood for such change; implying, as it does, change in the political power balance within the society. The political status quo is what it is for good reason, and changing it to provide enhanced possibilities for the poor to participate in economic activities is threatening to the ruling interests.

Looked at from this angle, promoting economic development and reducing widespread poverty is a very complex and difficult process. The transfer of capital to poor countries or regions and its transformation into roads and dams or schools and medical centres is, by comparison, a simple task. But without institutional changes in areas such as constitutions (to provide equal opportunity), judiciaries (to ensure impartial treatment), social capital (to generate trust throughout the community), rights to education (to provide equal access for the disadvantaged), or land titles (to provide security for investors), the provision of roads, schools, and hospitals is likely to have little impact.

Agricultural and resource economists have embraced the New Institutional Economics more enthusiastically than the general economics profession in Australia. This may be because they are doing more work in developing countries where they are forced to think more deeply about the process of economic development. For these reasons, agricultural and resource economists are in a position to make a contribution to the kinds of institutional developments that I see as necessary in Australia for economic development in Aboriginal communities.

In one of the few papers in the agricultural economics literature dealing with Australian Aboriginal issues, McCann (1999) examined how the High Court's Mabo decision of 1992 and the Native Title Act of 1993 were leading to new institutions to handle the resolution of rights to land. McCann suggested that the virtual overturning of the land tenure system for a large part of Australia meant that the transaction costs of interpreting various court decisions and the new parliamentary acts relating to native title, and

the costs of resolution of land claim disputes, would lead to new institutions designed to reduce the transaction costs. In arriving at these suggestions, McCann drew on Hayami and Ruttan's (1985) idea that new or changed institutions arose in response to changes in economic stimuli. While Hayami and Ruttan had suggested that new institutions could be 'induced' by changes in technology, in factor endowments, and in product demands, McCann hypothesised that the new institutions could arise in response to increased transaction costs.

McCann explored this idea by examining the development of formal institutions (such as the National Native Title Tribunal) and informal institutions (such as regional agreements between mining companies and groups of Aboriginal landowners) in efforts to reduce the transaction costs involved in settling claims to land and providing tenure for various kinds of land uses. In the New Institutional Economics context, the institution(s) that become dominant will be those that provide the lowest transaction costs, subject to the legislation that governs the actions of the various parties.

While much remains to be done in terms of putting practical flesh on the bones of the New Institutional Economics more generally, this line of research appears to provide a fruitful way forward in assisting in the development of an institutional framework that will provide a useful basis for the determination of rights to land.

3. Land tenure and land management

Discussion of the management of land held by Aboriginal groups has been largely dominated by political scientists, sociologists, human geographers, environmental and bio-physical scientists, and urban and regional planners. Agricultural and resource economists have had little involvement in the debate, even though the writings on this topic frequently refer to it as natural resource management.

The High Court's Mabo decision and subsequent Commonwealth legislation, together with State and Territory legislation, has meant that increasing areas of land are coming under the control (in various forms) of Aboriginal groups. Without doubt, the ways in which this land is managed will determine to a very large extent the future economic development of Australian Aborigines. How it will be managed will depend largely on the distribution of the rights to the land. In a sense, the High Court decision and the subsequent Commonwealth legislation turned back the clock over 200 years in respect of the tenure of a large part of the Australian land area and contingent waters. Land and water that had been taken in one way or another into public hands has been returned to what is called customary, traditional, or common ownership.

The most widely accepted position among economists with respect to the relationship between land tenure, economic development, and environmental sustainability is that secure, individualised land tenure is essential for robust economic development and environmental sustainability. Secure, individualised land tenure means that individuals hold the rights to use the land for whatever purposes they wish, except for illegal activities and activities that attenuate the rights held by others, including the state. The title may be freehold or it may be leasehold; but to give leaseholders the incentive to develop the land to its full potential the lease should be sufficiently long. To be secure, the property right must have the full backing of the government. Three very important consequences flow from such rights. First, the holder of the right to the land knows that he/she will be able to receive the benefits of any investments made in the land. Because investments such as buildings or fences last for many years, leases have to be long-term. Second, as secure, individual land title is the main form of collateral taken by banks as security for loans, loans for investment and consumption purposes can be raised by mortgaging the land. As De Soto (2000) says, 'land that cannot be mortgaged is dead capital'. If a country cannot provide such security for loans, it is unlikely that it will be able to develop a mature financial sector. People will be limited to intrafamily credit or to borrowing at very high interest rates and only for very short periods from informal lenders. Third, if individuals have secure property rights over land, they will be likely to take care of it. It is an asset that they will be keen to see increase in value in order that it will generate a higher income stream for themselves and their heirs.

For all these reasons, secure, individual property rights to land are likely to lead to increased productivity, which means economic growth and development. It is also likely to ensure sustainability of the land. When no one has rights over the land – a situation of 'open access' – none of these conditions hold. The land cannot be used as security for credit, people are not willing to invest in it to improve its productivity because they will not be able to gain the benefits of their investments, and everyone who can gain access to it will exploit the land to the maximum, which will lead to its deterioration.

But there are few instances of open access as far as land is concerned. Where land is not held under freehold, it is under some form of 'common property' ownership. Either the state controls it and manages it as a state enterprise or leases it out to individuals on long-term leases; or land is held as common property ('customary ownership') by groups of people (such as tribes or clans). The question arises whether land held under forms of common property is managed in as productive and environmentally sustainable a manner as land held under individual tenure.

The most dramatic comparison between the two forms of tenure has been seen in China and Vietnam, where land under state control and earlier farmed by collectives was subsequently leased on a long-term basis to individual farm households. The difference in productivity between the case where individuals did not hold rights to the land and therefore had no vested interest in its performance, and where farmers now have the right to the output from the land, in both countries has been breathtaking. In a period of a few years, Vietnam moved from having to import over one million tons of rice a year to where it is now the second largest rice exporter in the world. An agricultural revolution of nearly similar magnitude took place in China.

Customary ownership of land is not always clearly common property, as individuals within the ownership group are often given certain rights such as rights to farm or to erect housing. However, because these rights are not such that a bank can take a mortgage over a title to the land, and individuals cannot be sure that they will be able to reap the benefits of any investments they may make, it is unlikely that the land will be utilised in as productive a manner as where there is secure, individual tenure. There may well be investment in the land but it is likely to be at a suboptimal level. A surprising point about the agricultural revolutions in China and Vietnam was that they took place in the absence of clarity about the farm households' rights to mortgage, sell or inherit the land. It may well be that agricultural production increased so dramatically because the countries were well inside their transformation frontier, and while farmers had sufficient security of tenure to provide incentive for increased effort on their part, production is still suboptimal because their land rights are not fully secure. In fact, there has been little in the way of long-term investments by farmers in China and Vietnam. Most of the gains in productivity appear to have come from improved farming practices and increased farmer effort (McMillan *et al.* 1989; Tuong *et al.* 2001). Clearer and more secure rights to land could lead to even greater production.

These experiences show that significant development can take place with individual leasehold tenure of state- or society-owned land. Fiji's experience shows that agricultural development can take place under individual leasehold tenure of land held under customary ownership. Customary-owned land in Fiji has been leased for up to 30-year periods under the management of the Native Land Trust Board (a body under the control of the tribal chiefs). This tenure regime was the basis for the establishment of the sugar industry in Fiji, with the lands mainly leased from indigenous Fijians by Indo-Fijian farmers. While the system appears to have broken down recently – with Fijian landowners demanding that the leases not be renewed – the problems are related to the distribution of the land rents and

the mismanagement of the system, rather than being the fault of the regime itself.

A question basic to Aboriginal economic development in Australia is whether the land they control can make its largest contribution to their welfare if it remains under customary ownership, or whether its use under that tenure system will be suboptimal. I believe that the evidence points to the establishment of individual rights to the land in some form being likely to lead to the largest gains in welfare. But, unlike Warby (1997), I would argue that this does not have to mean movement away from customary ownership and individualisation of tenure through freehold. Long-term leasehold with rights to sell, mortgage and inherit the lease means that the land can be productively farmed, while the land remains under Aboriginal ownership. Moreover, land supplies a 'bundle' of services and therefore a bundle of land rights can be established, for example, the right to farm the land and the right to access it for other purposes such as spiritual, cultural, or leisure activities. The fact that land provides a bundle of rights and that these rights can be distributed to various users has not been sufficiently recognised in the debate over Native Title in Australia. The delineation, establishment, and management of these various rights will be an important part of the future management of Aboriginal lands.

The change from customary ownership to individualisation of land rights has always been a slow process, covering centuries, except where it has been imposed externally, as with colonisation. Whether this kind of change will take place and, if it does, how long it will take in the case of Native Title land in Australia is an open question.⁴ People living in a subsistence economy often have a deep cultural or spiritual association with the land. It appears that only as the people develop interactions with other societies and as other means of livelihood besides subsistence are developed that the dependence on land and the spiritual attachment are reduced. Boserup (1965) saw the demand for individualisation of land tenure within a customary ownership setting as a response to population pressure and the need for increased productivity to increase the food supply. The change in tenure is needed to give individuals greater incentives to make investments in the land. Duncan and Chand (1997) have generalised this idea in arguing that any change that leads to an increase in the implicit rental value of the land, such as a road, new farming technology, or opening the country up to trade, will increase the demand for individualisation of tenure. One can

⁴ One of the common causes of the long time taken to move to individual tenure has been the difficulty of resolving land claim disputes in the process of registering customary ownership. In Australia's case, disputes are being settled as part of the process of establishing Native Title and therefore disputed land claims should not be a significant obstacle.

observe these kinds of pressures at work in the Pacific island countries, where most land is under customary ownership. A lessening of dependence upon land for people's livelihoods, such as through greater reliance upon education, may also lower their cultural attachment to land.⁵

4. Environmental issues

The question of compensation of Aboriginal people for their contribution to the goals of maintenance of biodiversity and the sustainability of land management has also been raised by Altman (2002). He argues that the wider social benefits that Aboriginal people are generating (and will generate in the future) through their management of the considerable land area now under their control are not being recognised. Altman also makes the point that the popular expectations for Aboriginal advancement from their gaining control over land (which is often 'remote, commercially marginal and, at times, ecologically degraded') are generally far too high. He points out that introduced land uses have been hugely subsidised over the years, often with the result being destruction of bio-diversity and adoption of environmentally unsustainable and unprofitable practices. It seems reasonable, therefore, for society to recognise the contributions that Aboriginal people are making to Australia's national and international obligations.

If this social benefit is recognised, economists can contribute to the valuation of the externalities that could be generated by sustainable management of the extensive land now under Aboriginal control. As always, a key issue will be the design of a payments mechanism that cannot easily be corrupted and that does not lead to welfare dependency.

Altman (2002) is also critical of the lack of contribution of environmental agencies to the effort being made to the wider good through Aboriginal land management. The lack of appreciation of national and state agencies of the positive contributions by Aboriginal peoples to land management, the inappropriateness of the land management programs developed by these agencies for Aboriginal land, and the ineffectiveness of communication with them, are concerns raised widely by social scientists. It is claimed that Aboriginal groups are forced to rely on mainstream programs that have emphasised commercial rather than subsistence production; that communication of information about these programs is culturally inadequate, taking little account of their limited literacy and numeracy skills and technological understanding; and that government agencies take little account of the lack of capital and know-how of financial aspects of

⁵ I am grateful to Charles Yala, a Papua New Guinean PhD student, for this insight.

land management of Aboriginal peoples (e.g., Young *et al.* 1991; Orchard *et al.* 2001).

Given their control over such vast areas of land, consideration has to be given to the involvement of Aboriginal communities in the management of environmental issues. Integrated water management, for instance, involving as it does the management of private, public and common property issues and use of both market-based and regulatory instruments, needs to involve a mix of federal, state, regional and community-level responsibilities (Young 1997; Challen 2001; Quiggin 2001). The role of community groups in this integrated activity has not been well developed. In building on the ideas of Marshall (2001) and Musgrave (2002) for better involvement of regional and local communities, thought should be given to the integration of Aboriginal communities and their collective action role.

5. Development of mineral resources

As owners of around 15 per cent of Australian land, Aboriginal groups are already owners of land from which significant mineral resources are being exploited. The chances are high that further mineral discoveries will be made on their land. The development of these resources can make an important contribution to their welfare, but as seen in so many resource-rich developing countries, it is difficult to achieve improved welfare for the majority of the population from such developments. Altman (1995) recognised the likelihood of the so-called 'resource curse' problem arising in Aboriginal communities in Australia:

There is a growing Aboriginal recognition that the payment of royalties to incorporated bodies in areas affected by mining can result in excessive regional politicking for these moneys, with a concomitant lack of attention to longer-term economic opportunities and an inability to accumulate venture capital for investment. (p. 298)

Avoiding such 'rent-seeking' behaviour and ensuring that mineral discoveries make the best possible contribution to the welfare of Aboriginal communities involves negotiating effective contracts with mining companies and the effective management of the share of mining revenues accruing to the communities. The mining contracts negotiated and the relationships between mining companies and the owners of the lands being mined have improved considerably over the past 30 years, especially in developing countries. However, contract disputes are still a frequent occurrence in Australia and elsewhere. As Duncan and Duncan (1997) have shown with respect to mining in Papua New Guinea, contract disputes between customary

landowners and mining companies may arise because of asymmetry of information between developers and the mining companies, the time inconsistency of contracts, and the incompleteness of contracts.

These problems may arise in respect of the size of the mineral reserves, the mineral prices to be expected over the life of the project, and the project's likely environmental impacts. Duncan and Duncan suggested that better design of contracts could ameliorate these problems and reduce the likelihood of contract disputes that reduce investor confidence and the economic benefits from such developments. Insecurity of contract leads to reduced exploration and development and to short-run exploitation of resources through reduced fixed investment and increased fly-in/fly-out activity, and 'high-grading' of ore bodies. It appears that contract theory has much to offer with respect to the design of better mining contracts and better outcomes for the people directly involved – as well as those indirectly involved. Indirect effects which need to be addressed are the environmental impacts outside the mining lease area, and the distribution of benefits from mining projects to Aboriginal groups that no longer have a direct association with the land. The sustainability of regional economies following mine closures is an issue that has not yet been confronted but which also needs to be thought about. The institutional environment in which contract negotiations take place also needs to be considered. Temu (2002) has pointed out, with respect to mining contract negotiations in Papua New Guinea, how the order in which agreements between landowners, the mining companies and the government are agreed affects the balance of power between the different parties. He argues that in Papua New Guinea the obligation for a landowner compensation agreement to be in place before the developer can begin any work approved by the government, along with problems in the approval process itself, undermines the State's ownership right to the resource and also undermines its ability to enforce this right.

As with the management of government revenues from mining projects in developing countries, the management and distribution of the landowner benefits from mining projects have proven problematical the world over. Various forms of trust funds have been established to handle these funds. Some trust funds are completely under government control, as in Kiribati or Nauru (Duncan *et al.* 1995); others are under the control of statutory bodies, as is the case with funds held on behalf of Aborigines or Aboriginal communities in Australia (Altman 1995). Draw-downs from the trust funds may go directly into consolidated revenue or are invested wholly in public infrastructure and state-owned enterprises, invested directly in domestic industries, or paid directly to individuals – as is the case with the Alaskan oil revenues. The Alaskan oil fund, with quarterly payment of the dividends to all Alaskans, seems to be one of the most transparent and effective

forms of these funds. The Kiribati trust fund, built up earlier from phosphate mining revenues and more recently from fishing licence fees, and under direct government control, has been well-invested and continues to grow. However, the Nauru trust funds, also built up from the mining of phosphate and under government control, have been squandered in disastrous investment activities. The good management of funds from diamond mining in Botswana appears to have provided the basis for one of the best records of economic growth over the past 40 years. According to Altman (1995), the management of mining revenues realised from Aboriginal lands and held in trust on their behalf has not been very praiseworthy, giving rise to complaints of lack of transparency and poor investments.

These very different experiences raise a key question relating to the management of the funds from mining projects – whether accrued on behalf of landowners or on behalf of all society: that is, how to align the incentives facing the governing elite with the welfare of the intended beneficiaries? Indeed, this appears to me to be the key problem to resolve in establishing the basis for robust growth in an economy.

Similar problems of poor governance arise in relation to the management of enterprises established on behalf of indigenous peoples as arise in the management of trust funds. What has been called 'collective capitalism' has been adopted fairly widely throughout the Pacific island countries, with generally poor results – at least for those who are not in management roles. For example, the Incorporated Land Groups in Papua New Guinea, which were set up to manage the revenues flowing to customary landowners from logging and mining activities, seem to have benefited only the people in charge. A similar approach seems to predominate in the arrangements adopted for the management of Aboriginal economic activities. Here again, an effective incentive framework for good governance needs to be developed if this form of management is to persist.

6. International trade issues

An ongoing WTO Dispute Settlement hearing raises the question of whether goods exported from aboriginal lands in Canada that do not internalise the cost of compensation paid to the aboriginal landowners violate international trade law (Gray 2002). Recently, the USA imposed an average 27 per cent countervailing duty on Canadian timber, following a ruling by the USA International Trade Commission that the Canadian exports were subsidised and posed a threat of material injury to the US domestic timber industry. Under Article 1.1(a)(1)(ii) of the WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement), a subsidy is defined as a financial contribution that takes place when there is government revenue

that is otherwise foregone or not collected. In this case it is argued that the stumpage fees set by Canada's provincial governments and levied on trees harvested from publicly owned land are at less than market value because they do not include the cost of the government's compensation to aboriginal people's rights to these lands.

In response to the imposition of the countervailing duty, Canada requested the establishment of a panel at the WTO Dispute Settlement Body, arguing that the US measure violated the SCM Agreement. Canada has argued that the stumpage fees are paid in exchange for the right to exploit an *in situ* natural resource and that this does not constitute the provision of a good, and therefore cannot be countervailed.

In an interesting twist, the Dispute panel has accepted a submission from an alliance of First Nations peoples in British Columbia which has argued that the Canadian stumpage fees violate both Canadian law and international trade law. They contend that they have never ceded their rights to their traditional lands. Moreover, they argue that the provincial government's refusal to collect money from the loggers to compensate them for the timber extracted confers an unfair benefit on forest companies.

From the viewpoint of the WTO, the case raises the difficult issue of whether the international body can be used to enforce domestic law. There is also the matter that by recognising a high level of rights towards aboriginal peoples – as, indeed it does, internationally – this will place Canadian exporters at a competitive disadvantage. In turn, it could encourage other countries not to make any formal commitments to Indigenous people that could have similar impacts.

For agricultural and resource economists the case raises implications both for our work in the international trade area as well as in the valuation of natural resources on land held under Native Title. It would seem that the extraction fees set should be market-related, unless there are any non-market costs that should be taken into account due to the rights to the land held by aboriginal peoples – such as loss of bio-diversity. An issue therefore is how to design mechanisms to establish the appropriate fees. A related issue that may well raise similar complexities within the WTO framework is intellectual property rights over the cultural practices of Indigenous people that are incorporated in one way or another in goods and services that are traded.

7. Conclusion

Unlike in Canada and the USA – other high-income countries with a small percentage of aboriginal peoples relative to the total population – the gap in life expectancy between the Australian Aborigines and the rest of society is not declining. Is this because of the greater dependence on welfare-type

policies and the low reliance on the promotion of individual entrepreneurship and economic development in Aboriginal communities? I believe that it is. How to stimulate economic development in low-income countries continues to be a hotly contested topic. But how to do it in the context of Australian Aboriginal communities is a topic that has hardly been addressed. The lack of interest in the question from Australian economists is surprising. If, suddenly, the populations of Canberra or Fremantle experienced the life expectancies, the infant and maternal mortality rates, the incidence of infections presently experienced by Australian Aborigines, and up to 90 per cent of private and public income came from government, it would be seen as a problem of such magnitude that it would rank at the top of most research agendas. The only difference from this hypothetical situation is that the Aboriginal population is highly dispersed.

Within the general discussion of economic development, there has been a marked shift away from the ideas that physical capital is the main ingredient missing from the recipe to promote economic development and that governments have an important role in production activities. Clearly, there are important roles for government in promoting economic development in general and in promoting economic development in Aboriginal communities in Australia in particular: particularly in the provision of basic health and education services and access to markets. But just as important, or perhaps even more important, there is the complex task for governments of providing the necessary institutions to ensure that Aboriginal communities and individuals can have the opportunity to participate as fully in economic growth and development as the rest of Australian society. In this respect, I argue that there is a case for not neglecting the possibility that special institutions may be needed to assist them to overcome their disadvantage within Australian society, given the history of prejudice against them.

Because of their special skills and experience, agricultural and resource economists have much to offer in developing these special institutions – particularly in respect of land tenure. Agriculture and resource economists also have much to contribute with respect to the development of contracts for mining of Aboriginal lands to maximise the benefits to Aborigines, as well as to the rest of Australia. We can also contribute to the management of the natural resource revenues accruing to Aboriginal communities to help avoid rent-seeking behaviour and maximise the benefits to Aborigines from these revenues.

Other challenges to the profession can be envisaged in the development of land management practices that take into account the near subsistence existence of some Aboriginal communities, their knowledge of their country, their levels of skills and technical knowledge, and their access to finance.

Given their control over increasingly larger areas of land and water, there should also be close involvement of Aboriginal communities in the development of environmental management policies. I hope to see the profession take up these challenges in the years ahead.

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