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## **Private Sector Business Opportunities in National Parks**

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### **Abstract**

Australia's publicly owned and managed National Parks estate has been largely quarantined from the micro-economic reforms that have been instituted across most other sectors of the economy. The public good, natural monopoly and equity arguments that are used to justify a continued dominance by the public sector in the production and provision of Park benefits are not watertight. Opening up the Parks sector to private sector competition would afford efficiency improvements for the economy as well as a range of private sector business opportunities, frequently in rural and regional Australia.

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### **1. Privatisation pressures**

With the realisation that "micro-economic reform" rather than "demand stimulation" held

the key to sustained economic growth, advanced economies around the world have experienced an extended period of rapid de-regulation (Kasper 2000). In Australia, financial markets were dramatically re-shaped after the Campbell Inquiry, product markets were opened up to competition through reduced levels of tariff protection and quotas on agricultural production were abolished. The Competition Reform Act 1995 has triggered the introduction of competition in markets for power and water. A notable feature of the reform process has been the progressive reduction in the role of government as a provider and producer [1] of goods and services. This has been achieved through the sale of government owned businesses including the Commonwealth Bank, Qantas and (partially) Telstra. Government departments have also expanded their reliance on “contracting-out” to the private sector for the supply of ancillary services such as information technology. One consequence has been an expansion in business opportunities available to the private sector.

The result has been a more flexible economy better able to cope with changing economic conditions. Competition maintains downward pressure on business costs and the prices paid by consumers and upward pressure on product innovation and customer satisfaction (Productivity Commission 1998). [2]

The desire for economic efficiency that has precipitated these reforms has percolated through most of the Australian economy. Yet the winds of change have not blown with equal velocity in all sectors. Some domestic manufacturers have secured extensions of shelter from import competition through industry “plans”, tertiary education remains almost entirely under the public sector’s wing, the social security system is largely unreformed and labour markets remain highly regulated. Whenever attempts have been made to institute efficiency inducing reforms in these sectors, politically powerful lobby groups have been able to repel the advances using derogatory phrases such as “economic rationalism” to criticise arguments for change.

A notable inclusion in this list of reform “sacred cows” is government provision of nature protection through the network of National Parks that extends across the whole nation. Whilst some attempts at reform have been made by various State governments – notably the contracting out of some production tasks such as rubbish collection and basic maintenance tasks in an attempt to lower costs – the National Park estate remains fundamentally publicly owned and managed. The winds of change appear to have largely bypassed the National Parks estate.

Politically, parties of all persuasions use the promise of additions to the National Parks estate to generate support at election times. That support flows largely from urban-based conservation groups that are capable of holding sway in marginal electorates. Additions to the estate are generally at a cost to the silent taxpayer who funds the acquisition and, possibly, small groups of local people affected by the loss of income flows generated by resources to which access is denied by the acquisitions. In the heat of an election campaign, it is often the case that little regard is paid to the economic efficiency consequences of National Park acquisition. And once acquisitions are dedicated, there appears to be little consideration given to the efficiency of their subsequent management.

The aim of this paper is to explore the prospects for the involvement of private sector business in the provision and production of National Parks. This task is begun in the next section with a consideration of the economic significance of National Parks. This is used to demonstrate that the efficiency dividends that are possible through private sector involvement are worthy of investigation. In Section 3, the traditional arguments against private sector involvement in National Park provision and production – notably the public good, natural monopoly and equity arguments – are assessed. It is concluded that none of the arguments necessarily preclude private business involvement. Options for private provision are investigated in Section 4 whilst private production alternatives are detailed in Section 5. Some conclusions are drawn in the final section.

## 2. The economic significance of National Parks

A number of arguments can be advanced to suggest that National Parks are of little economic significance and hence do not warrant any scrutiny regarding their efficiency of production and provision. Firstly, it can be argued that the land under National Park status is frequently of little value for other uses. Why else would land have remained so undeveloped that it warrants the status? Furthermore, it may be argued that National Parks are effectively “outside the real economy”, as they make no contribution to Gross Domestic Product. Hence, improving the efficiency with which they are managed will not show up as an improvement in economic performance.

These arguments are readily dismissed. First, National Parks do impose significant costs on the economy. These costs are of two types: opportunity costs and management costs. The opportunity costs relate to the income the economy could enjoy from the exploitation of resources otherwise quarantined by their status as National Park assets. The fact that National Parks have not been developed prior to their declaration does not preclude them from being valuable for other uses now or in the future. Growing demands for resources and improved technology (effectively lowering the costs of resource extraction) almost ensures that current and/or future developmental values will be positive. Hence, declaring National Parks has a negative impact on GDP because of these foregone streams of income.

The significance of these costs should not be underestimated simply because of the extent of the National Parks estate. For instance, in Victoria, 16 per cent (3.75m hectares) of the total land area is National Park, Wilderness Park or Metropolitan Park and thus under the management of Parks Victoria (Parks Victoria 1998). In Western Australia, approximately 20m hectares or 7.6 per cent of the state is managed by the Department of Conservation and Land Management [\[3\]](#) (CALM 1998). This includes 63 National Parks that make up approximately 5m hectares and almost 11m hectares of Nature Reserves.

The costs incurred in the management of such an extensive estate are significant. For instance, the CALM operations budget in 1997-98 exceeded \$50m.

It is also a fallacy that the National Parks estate does not make a contribution to the economic well being of the nation. Some of that contribution is captured within the bounds of the National Accounts. For instance, the estate is an input into the tourism industry (Huybers and Bennett 1997). National Parks are popular sites for domestic and

international tourism and recreation. A proportion of the income generated by that industry could therefore be attributed to the Parks estate [4]. Furthermore, National Parks contribute indirectly to the productive capacity of many other sectors of the economy. For instance, high quality water sourced from catchments in National Parks is used for domestic, industrial and agricultural purposes. Genetic material preserved in the estate may be used as a base for pharmaceutical developments. Still and motion pictures are shot in National Parks.

Outside the framework of the national accounts, the estate also contributes to the well being of society. Non-marketed benefits arising from National Parks include the aesthetics offered to passers by and the enjoyment gained from the knowledge that native species of floras and faunas are protected from extinction. Nor should the magnitude of these benefits be underestimated. A wide range of non-market valuation studies [5] indicate that the so-called “non-use” values of protected natural areas are in the order of three fold the magnitude of the values generated from recreation and tourism.

The magnitude of both management and opportunity costs implies that the nation holds a substantial investment of its resources in the National Parks estate. The Australian community should demand an appropriate rate of return (in terms of both marketed and non-marketed benefits) on that investment. There is no reason to exclude the National Parks estate from a scrutiny of performance efficiency.

One obstacle to such a performance efficiency assessment is the non-marketed nature of many of the benefits provided by National Parks. For instance, without estimates of all the benefits generated, it is unclear whether they exceed the costs of provision, or indeed if a sufficient rate of return relative to alternative investment opportunities is being generated.

Economists have sought to develop techniques for the estimation of non-marketed environmental benefits to enable the assessment of the efficiency of using scarce resources as National Parks. Because of a range of technical complexities and philosophical qualms, the application of these techniques remains limited [6]. However, the dearth of empirical evidence does not preclude an analysis of alternative provision (ownership) and production (management) mechanisms in terms of their adherence to basic principles of allocative efficiency. It is from such an analysis that any reform measures likely to generate improvements in social well being can be identified. Furthermore, the analysis can allow the recognition of the policy direction that should be taken.

### **3. Arguments against private sector involvement**

The status quo for the provision and production of the National Parks estate is one of domination by the public sector. This is argued to be appropriate on both efficiency and equity grounds (Tisdell 1977). Because the benefits produced by the estate have “public good” characteristics, it is argued that private provision and production will be inefficient. Most notably, the difficulty and hence high cost of excluding people who don't pay for the benefits they enjoy (known as non-excludability) implies that there will be insufficient

profit motive available to encourage the efficient level of supply from the private sector. As a secondary concern, even if a private supplier did decide to provide a public good, the charging of a positive price for the service would be inefficient because the price would exceed the zero cost of allowing additional consumption [7]. Further to this argument, National Parks that contain “unique” environmental or cultural features (for example Uluru or The Grampians) can be regarded as monopolies and the price charged by a private supplier would be even higher still.

An equity-based argument is that all Australians should have free access to the estate. In a sense, this argument is tied up with notions of an Australian’s “birthright” to have access to the nation’s natural heritage. Where a monopoly price could be charged, the equity concerns are heightened. This argument is extended by the contention that National Parks provide “merit goods”. These are goods for which the demands of individuals do not sum to the demand from the society as a whole. In other words, the provision of merit goods provides some value to the whole of society that is not recognised by individuals. There are unrecognised “spill-overs” from the consumption of merit goods by individuals to other individuals [8]. Hence, the argument is that merit goods “should” be made available to all through public provision and production.

These familiar “market failure” arguments are far from watertight. More generally, it is difficult to think of any good that can be considered as a “pure” public good. Exclusion has become feasible for more and more goods and services as novel technologies and management strategies have been applied to the task. Rivalry has been shown to be almost universal to at least some degree once the time dimension has been considered. Equity concerns have also been addressed in ways that do not involve the direct provision and production of goods by the public sector. This departure from the notion of pure public goods implies that provision and production by the public sector is not the only alternative.

A number of the attributes of National Parks will serve to demonstrate why they must be considered as departures from the pure public good model.

First, National Parks are best thought of as vehicles of joint production. That is, a single National Park produces a range of benefits, each of which has defining characteristics. For instance, a Park may offer recreational opportunities for its visitors as well as a habitat for the protection of endangered species. Different management practices will give rise to different ratios of benefits just as the management of a flock of sheep will determine the ratio of wool to meat that is produced. Encouraging visitors may result in lower species protection benefits whilst a management regime that limited visitation would trade off recreation benefits for species protection. However, just as the sheep grazer will produce both meat and wool, so a Park will produce both recreation and protection benefits. A critical point here is that some of the benefits provided by the Park may be excludable whilst others are not. Hence, it may be possible to prevent non-paying visitors from enjoying the Park for recreation but impossible to exclude those enjoying the knowledge of species protection.

The implication is that joint production precludes the classification of National Parks as pure public goods on the basis of non-excludability. This has important implications

because the profit motive established for the private provision of (excludable) recreational benefits may thus operate to yield the joint (non-excludable) product – species protection. Hence, the funding for the provision of the non-excludable product is generated simultaneously through the joint production of the excludable product.

There are also reasons why National Parks are rivalrous in consumption. First, the costs of allowing extra users into a Park may not be zero because of congestion effects. If an extra person is allowed into a Park and current visitors are made worse-off as a result, consumption rivalry is evident. Such a situation doesn't only occur in highly congested Parks. It can also occur in a rarely visited park when a user seeking the peace and tranquillity of a wilderness experience is interrupted by another seeking the same experience. Note however that again some of the benefits produced by National Parks are truly non-rivalrous. For instance, the cost of an extra person knowing that a Park is functioning to ensure the survival of an endangered species is effectively zero.

Second, the costs of allowing an extra person to visit a Park may be close to zero in the short term but when the analysis is extended to the long run, it may be that sufficient extra users have visited the Park to generate pressure for an increase in supply. With this frame of reference, the cost of each extra visitor is non-zero and rivalry is established. Again, the so-called “non-use” benefits of Parks are likely to be non-rivalrous, however, the pattern of a mixture of joint products with differing public good/private good characteristics emerges.

The status on National Parks as monopolies is also questionable. The argument pivots on the degree to which other goods and services act as substitutes for the outputs of National Parks. This in turn depends on the specifics of the case and the type of output under consideration. For a wide range of Parks, the recreational experience offered to visitors is readily substituted. For instance, for many, bush walking in a forested National Park could be substituted by bush walking in a native forest used for timber getting. Surfing or fishing at a beach outside the boundaries of a Park may be a close substitute for the same activities at a beach within the Park. Viewing endangered species in a sanctuary or even a zoo may be a real alternative for many. Some may be quite happy to substitute an afternoon watching a movie or visiting an amusement arcade for a trip to a National Park. In other words, substitutes are in the eye of the beholder.

It is even apparent that visits to “icon” National Parks like Kakadu and Uluru are considered as substitutable both between each other (“Its too expensive to go to Uluru, lets just visit Kakadu”) and with other attractions (“Why don't we go skiing in New Zealand this year instead of visiting Uluru?”).

Other “non-use” benefits of the estate may also have potential substitutes. The genetic material of endangered species can be protected in sanctuaries and zoos. On numerous occasions the only way endangered species have been saved from extinction has been through captive breeding programmes. With the development of bio-technologies, it is even conceivable that the genetic material contained in a National Park could be stored in a “gene bank”.

It must be concluded that National Parks are not pure public goods. But nor are they

pure private goods. Rather, they are a complex mixture of the characteristics of both. It is therefore unwise to think of their provision and/or production in terms of simplistic private or public good models. Hence, it is unwise to think of the provision and production of National Parks solely as the province of the public sector.

Nor do equity concerns dictate public provision and production. The fundamental principle involved in meeting equity issues is that income transfers are preferable to direct price subsidisation. Where merit goods are involved, a paternalistic government can direct consumption patterns by issuing vouchers that entitle eligible recipients to access the merit good at zero cost. Neither option need involve public provision or production.

#### **4. Private provision alternatives**

The choice between public or private provision of National Parks is not black and white. The choice is between the efficiency advantages afforded by competitive private ownership and the possible inefficiencies created when non-excludable benefits are involved. A number of factors influence this balance.

One of the most important factors is the ability of a private owner to exclude users coupled with the significance of the non-use benefits in the mix of outputs supplied by a Park. For instance, a Park where exclusion of visitors is relatively inexpensive and where the jointly produced non-use benefits are either key to the attractiveness of the area to visitors or unimportant, private provision may be desirable. In such circumstances, a private owner would ensure the provision of recreational services that are in demand at least cost. Hence, protected natural areas provided by Earth Sanctuaries Pty Ltd [\[9\]](#) generate cash revenues through visitor generated sales yet simultaneously allow the general, non-visiting public the enjoyment of knowing that a number of endangered species are being saved from possible extinction.

A related question is whether a private owner would find it sufficiently profitable to maintain the Park as a protected natural area, relative to the returns that could be generated from alternative, extractive uses of the resource. An important consideration in this regard is the concern that the non-use benefits produced by the Park do not generate profits for the private owner, and they are produced only because they are jointly supplied when the revenue generating use benefits are provided. Hence, from the perspective of society, the most desirable use for the resource may be as a Park but from the perspective of the profit driven private owner, an extractive use may be more attractive. For instance, an urban Park may provide a site for recreation and aesthetic benefits for adjacent residents and passers by. A private owner of such a Park could generate revenue from Park visitors but the non-use aesthetic values may be largely non-excludable. Without a flow of revenue from all the benefits, the private owner may well decide to sell the park as housing sites to her personal advantage but to the net disadvantage of the community.

Such a potential misallocation of resources does not necessitate public provision. Again innovative public sector solutions that take advantage of private sector efficiency may be available. For example, the title to the parkland may be subjected to a covenant

precluding its use for activities other than nature protection and nature-based recreation. Alternatively, zoning regulations at the local government level may be used to maintain the conservation status of the area.

Other options involve questioning the non-excludability of the non-use values. Will people automatically “free-ride” on the provision of the non-use values? Will people who enjoy the non-use benefits of a Park necessarily not pay for their provision even if they can avoid payment? There is some evidence to suggest that revenues will flow, even when exclusion is not possible or feasible [10]. When there is a small group of people who benefit – for example, property owners in the immediate vicinity of a Park who enjoy its aesthetic beauty - there may be sufficient “peer group pressure” to ensure that all would contribute to the revenue flows of a private owner. Even where the number of beneficiaries is larger and their geographic spread more dispersed, free riding is not all pervasive. Australian Bush Heritage [11] is a private provider of protected natural areas through donations by people who enjoy the knowledge that pieces of ecologically significant bush land are being protected. It may also be the case that investors in Earth Sanctuaries Pty Ltd subscribe to that company’s share floats not solely to generate a financial return on their investment. They may also invest as a form of “donation” to ensure the supply of non-use benefits arising from the protection of areas of Australian ecosystems.

Exclusion is clearly important to the prospects of private provision. It is likely that private providers of Parks would be innovative in ensuring exclusion. Some indication of directions that could be taken has already been given by public sector park managers. The standard approach of “toll-booth” on entrance roads is evidenced at popular National Parks in NSW such as Kosciusko, Ku-ring-gai Chase and Royal. At such Parks, visitation rates are sufficiently high to warrant the expense of permanent collection point. Exclusion is achieved in less visited Parks, such as Flinders Ranges in SA at lower cost by requiring visitors to self-complete permit applications and deposit entry fees in locked boxes at Park entry points. Policing of exclusion is then achieved through random checks of permits at camping sites or parking areas. For even more remote and infrequently used parks, such as the Simpson Desert in South Australia, intending visitors buy permits by mail. The windscreen sticker that indicates payment for entry is then checked at random by park rangers. With the profitability of their enterprise at stake, it is likely that private providers of Parks would devise even more effective means of exclusion at lower cost.

Such possibilities for excluding visitors forces a questioning of the view that a Park that is remote from centres of population (and hence infrequently visited) but is the last remaining habitat of an endangered (non-charismatic) species may not be a good candidate for private provision. Certainly the excludable demands for use benefits would be insufficient to “piggy-back” the jointly supplied non-use benefits in such cases. That would imply that a private owner would almost inevitably reallocate the resource to extractive uses. However, with the covenanting of the land titles involved, a private owner may find that the (small) revenue flows from visitors plus voluntary payments of non-use value recipients are sufficient to generate an adequate return on the capital invested [12].

Whilst it has been argued that Parks are unlikely to be pure natural monopolies, both

from the perspective of substitute availability and the costs of admitting additional users, some degree of monopoly power may still be available to private (and public) providers. The situation is very similar to that faced when private toll roads are built. When uncongested, such roads can be used by an additional driver at zero additional cost and whilst there are substitutes (minor, congested roads) a degree of monopoly power remains. And just as with private toll roads, measures can be devised to ensure competition.

The establishment of a contestable market is critical in this respect. So long as the entry of alternative suppliers into the market is unimpeded, pressure is maintained on incumbent suppliers to hold prices to near competitive levels. Keeping the transaction costs associated with ownership changes as low as possible is a key requirement. If transaction costs are high, the incumbent has an effective barrier to the entry of alternative owners.

Action by Earth Sanctuaries Pty Ltd against the South Australian Department of Environment Heritage and Aboriginal Affairs (DEHAA) before the Competition Commissioner (1998) under the Government Business Enterprise (Competition) Act 1996, serves to illustrate the potentially competitive nature of the business of nature protection provision. Earth Sanctuaries claimed that the principle of “competitive neutrality” was not being upheld by the pricing policy of DEHAA for its Cleland National Park. They claimed that Cleland was a “business activity” that competed directly with Earth Sanctuary’s Warrawong Sanctuary. Both are in the Adelaide Hills and both feature displays of endangered species. Furthermore, Earth Sanctuaries claimed that Cleland had an unfair competitive advantage. The Commissioner dismissed the DEHAA claim that Cleland was not a business activity because of impositions placed on its operation by government policy and supported Earth Sanctuaries’ contention that they were direct competitors. The Commissioner recommended that DEHAA institute a policy of full cost attribution and cost reflective pricing.

## **5. Private production alternatives**

There are at least two reasons why the private provision of National Parks may not eventuate. The first reason is politically based. The political will to achieve a privately owned network of National Parks may not be sufficiently strong to withstand the power of interest groups that would be disadvantaged by such a reform. The second reason is a matter of practicality. The revenue streams that could be generated for a private owner may not be sufficient to cover costs and so at an auction to sell the Park to the private sector no bids may be registered.

In both these circumstances, there remains a role for the private sector in producing National Park benefits if not in providing them. In other words, the Parks could be publicly owned but managed by private sector interests.

Tenders to manage Parks could be let by government. To ensure that the estate was managed in a way that was to the community’s best advantage, the contract let could specify a set of “safe minimum standards” and specify a default deposit as an insurance against any failure to comply with contract conditions. In this way, the public could

expect the cost-effective production of National Park outputs. Resources would be matched appropriately against tasks, innovation and flexibility in the delivery of outputs would be introduced and costs would be reduced.

The payments made by government for these tenders would depend on many factors. However it is worth noting that, subject to the contract “safe minimum standards”, Park managers could be left at liberty to charge entry fees, operate concessions within the Park and otherwise generate cash flows that would lower the amount they would require as a fee for managing the asset.

A move in this direction has been taken in Victoria where the Department of Natural Resources and the Environment (DNRE) contracts the management of that state’s Parks to Parks Victoria. Originally, the management of Victoria’s National Parks was undertaken from within DNRE. In order to separate out the Department’s monitoring and policy role from its operational function, Parks Victoria was hived off from the Department and a “purchaser-provider” relationship was established. The problem with this arrangement is that as yet, Parks Victoria is the sole supplier of Park management services. It is effectively a monopoly supplier to DNRE. The simple remedy to this situation is to permit other entities to bid for the right to manage individual Parks for a pre-specified period of time. The competitive pressures generated by such a bidding process would doubtless yield benefits to users, non-users and the general taxpayer.

The most pressing equity concern regarding private sector provision and/or production of National Parks is the payment of entry fees. Paying fees to enter National Parks is nothing new to Australians. But whilst the “user pays” principle is widely applied and accepted, further broadening its scope is problematic to some.

Equity and merit good concerns can be readily addressed. For instance, a number of “free” Park entry “vouchers” could be distributed to citizens. This may be selective – say to all school aged children – or broadly – perhaps along with motor vehicle registration receipts [\[13\]](#). Cost savings afforded to government by the privatisation of Parks would be more than adequate to the task of funding such a “voucher” scheme.

Given that many existing National Parks are located in rural and regional areas, there would appear to be considerable potential for the diversification of employment opportunities through the privatisation of Park management. Landholders living adjacent to parks could tender for the management role on a part-time basis. Given their proximity to the Park and their familiarity with the local area, it is likely that their cost structures would be lower than those facing a public sector operation located at a regional population centre. Whether or not employment opportunities would be expanded or contracted by the introduction of private provision/management would be a matter of weighing up the prospects for demand growth stimulated by the change against the efficiency gains also achieved.

## 6. Conclusions

The current policy of almost exclusive public provision and production of National Parks in Australia is based on the flawed premise that the public good nature of Park outputs

precludes private sector engagement. When the characteristics of National Park outputs are carefully examined it is apparent that there are extensive opportunities to reap the advantages of competitive private supply whilst ensuring the ecological integrity of the estate. These opportunities arise both for the economy as a whole and for business ventures that become involved in the industry. The opportunities are in both provision (ownership) and production (management).

It is not appropriate, however, to suggest a single rule of thumb for the introduction of the private sector into the realm of National Park provision and production. There is a wide diversity of circumstances evident in the Parks estate. This diversity will need to be matched with a diversity of institutional arrangements.

A number of starting points in the reform process are apparent.

First, governments should announce that they will declare no further additions to the estate. This will have the effect of removing the “crowding-out” effect that public provision of Parks is having on private sector attempts to raise funds for the establishment of protected natural areas. Free-riders in the community who value additions but find it cheaper to lobby governments to supplement the estate would be forced to reassess their position. Flows of funds to organisations like Australian Bush Heritage and Earth Sanctuaries would expand and a host of smaller, most likely locally based fund raising bodies would emerge.

Second, each State’s portfolio of Parks should be analysed with a view to disposing of those assets which, with appropriate covenants attached to the titles, could be sold to private interests. This analysis would need to take into account the relative importance of use and non-use, excludable and non-excludable, benefits provided. A progressive approach to sales, beginning with obvious candidates like tennis courts, golf courses and restaurant sites would provide experience and confidence to those responsible for the process. Ensuring strong competitive pressures amongst potential bidders would be a key factor in this process.

Third, a separation of the regulatory role of State environment departments (or National Parks and Wildlife Services) from their operational roles is critical. Where government departments or agencies are effectively regulating their private sector competitors, the prospects for non-neutral competition are very real. However, this step must be supplemented by allowing private Park management businesses to compete against the operational arm of government, again under principles of competitive neutrality.

Each of these steps would provide advantage to park users, those enjoying non-use benefits and the general public who pay taxes. The rate of return on the community’s investment in nature protection would be enhanced.

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## Footnotes

[1] The terminology used here follows that of Lal (1997). "Provision" relates to the ownership of the production process whilst "production" relates to its management.

[2] The debate regarding competition reform and privatisation in particular is not altogether one sided. Quiggin (1998) presents an opposing view.

[3] Within the CALM estate, 1.7m hectares is classified as State Forest and is, in part, subject to logging. Similarly, the Metropolitan Parks of Victoria include urban “play grounds”. Whether such areas are properly included in the National Parks estate is clearly subject to debate.

[4] The work of Bennett, Gillespie, Powell and Chalmers (1996) illustrates the significance of the income flows generated directly and indirectly by two NSW National Parks.

[5] See Bennett (1999).

[6] See Bennett (1996) for a discussion of these issues.

[7] This is the characteristic of “non-rivalry” in consumption. The non-rivalrous good, once made available to the first user, is available to the next user at no additional cost. Note however that this is an argument that is interconnected with the issue of funding. It can be overcome through the identification of a parallel vehicle for revenue generation. For example, receivers of “free-to-air” television broadcasts are charged a zero price with advertising revenues funding the production process.

[8] The classic example of a merit good is vaccination against contagious diseases. The individual enjoys a benefit from their own immunisation but their action confers benefits to others in that they are one less source of the contagion.

[9] See <http://www.esl.com.au>

[10] See Olson (1965).

[11] See <http://www.bushheritage.asn.au>

[12] The capital investment, that is the price of the land, would not be a reflection of the value of the land for extractive purposes if a covenant excluded such uses.

[13] A scheme along these lines was used to quell resentment to the introduction of visitor fees for Canberra’s Floriade exhibition of spring blooms.



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