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National Park User Pays Systems in Australia. Cost recovery vs access for all?

JTLS special issue – world’s national parks

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**Theme:** Park management policy and visitor use.
Abstract

This paper discusses the tension between user pays systems as a means of cost recovery and equity of public access using the example of Australian national parks. Six Australian state based national park management agencies were interviewed about their user pays systems. Australian national parks are managed as a public good, for biodiversity conservation, and to provide for recreation and tourism opportunities. Legislated social equity requirements result in discounted user pays systems that are generally not cost effective. This raises the question of whether user pays systems for cost recovery are compatible with access management based on social equity.

Special issue theme: Park management policy and visitor use.

Short title: Cost recovery or access for all in Australian parks?

Word Count: 5244
National Park User Pays Systems in Australia. Cost recovery vs access for all?

Introduction

Most countries have protected natural areas set aside primarily for conservation, often in the form of publically owned and government managed national parks (Alpizar, 2005). It is recognized that national parks can play an important role in preserving biodiversity and ecological processes for the greater benefit of society (Turpie, 2003). National parks are also significant points of focus for tourism and recreation activity (Eagles, 2002; Kuo, 2002; Laarman & Gregersen, 1996; Nyaupane, Morais, & Graefe, 2004). As a consequence, national park managers are required to actively conserve and protect these areas as well as provide a range of tourism related amenities and services (Athanas, Vorhies, Ghersi, Shadie, & Shultis, 2001; Pigram & Jenkins, 1999). Further to this, Font et al (2004a) noted that national parks are increasingly expected to pay their way due to limited or diminishing government funding for public parks and/or increasing demand from users. This paper presents findings from a research project that examined issues regarding policy and management of user pays systems in Australian national parks and the application of a user pays system for government managed parks established as a public good based on equity of access.

Given that publically funded national parks are managed by governments on behalf of the wider community, it is argued that the public has a right to access the land as a stakeholder. This is reflected in the conceptualisation of national parks as a public good, despite the rationale for declaration, since they were first established in the late 19th century. This paper presents findings from a study of eight Australian state government agencies that manage the respective state based national parks systems in Australia. National parks in Australia are managed based on the concept of parks as a public good where access for all is mandated.
However, national park management in Australia also incorporates a cost recovery component into the legislative framework. In this context, cost recovery includes park visitor entry fees and this element of user pays was the focus of this study. The issue of simultaneously implementing a user pays based cost recovery system while managing parks as a public good with a mandate of access for all is discussed.

*Rationale for National Park Declaration*

The reasons for declaration of national parks have changed over time since their first inception in the late 19th century. Yellowstone, as the first national park in the United States, was declared in 1872 in recognition of the unique and spectacular landscapes it encompassed. This was not an ecological conservation imperative, but rather a reservation of a landscape as part of “...a museum of American sublimity” (Hughes, 1997, p200). Interestingly, the first official expedition to survey Yellowstone had the “enthusiastic backing” of the Northern Pacific Railroad who reportedly recognised the region’s potential value as a tourist destination, with associated profitable new railroad line (Hughes, 1997, p199). Runte (1997) commented that encouraging tourism to national parks in America was considered important for the promotion of national identity. Yellowstone was thus established to preserve and promote national identity, represented by the rugged wilderness landscapes, for the public good (Runte, 1997).

In contrast to the US rationale, Herath (2002) cited sources demonstrating that Australian governments did not consider creation of national parks for nature conservation as a high priority until the 1970s. Until this point, national parks in Australia were established mainly for management of timber resources and provision of recreation and tourism opportunities. Eagles (2002) noted a growth in focus on parks for use as nature based tourism and recreation
resources in the second half of the 20th century. However, Kellert (1979) had earlier asserted the growth in number of parks during the late 20th century was the result of a widespread acceptance of the ecological ethic. While reasons for declaration of national parks have changed over time, the underlying rationale appears to have consistently been a focus on national parks serving as a public good.

The contemporary view of national parks, including those in Australia, considers their highest value is in conservation of biodiversity and associated ecosystem services that support human survival (Buckley, 2003a). This is considered the main contribution of national parks to the greater public good, justifying expenditure of public money from tax revenue for maintenance and management. Eagles (2002) and Buckley (2003a) claimed that, given the world’s national parks are now managed primarily for nature conservation, those who access national parks for recreational and nature based tourism pursuits are viewed by managers as a subgroup accessing parks for a secondary function. Consequently, Eagles argues that managers consider it difficult to justify public expenditure to subsidise park facilities and management for a use that can degrade the conservation value of a park, by a subset of the population. Indeed, Athanas et al. (2001) suggested publically owned national parks accessed for tourism and recreation could be seen as an operation providing goods (natural environment) and services (facilities and experiences) that may be consumed by users for a fee. The range of facilities and experiences provided for park users might include those relating to picnicking, sightseeing and hiking through to adventure activities such as rock climbing and abseiling (Pigram & Jenkins, 1999). Services provided can include toilets, drinking water and roads as well as information, education and guided activities. In addition, tourists expect to be generally satisfied with their overall experience, as with any tourism product. Implementing management strategies that maintain the natural resource and ensure
adequate services, experiences and facilities requires adequate funding (Leal & Fretwell, 1997; Newsome, Moore, & Dowling, 2002; Pigram & Jenkins, 1999). A user pays system is considered one means of recovering costs for provision of services and amenities secondary to the nature conservation function of national parks (Buckley, 2003a, 2003b; Pigram & Jenkins, 1999). As a result, legislation relating to Australian government managed national parks commonly includes a requirement for cost recovery through a user pays system (Buckley, 2003a).

National Park User-pays Systems

While national park user pays systems are implemented as a means of cost recovery, the systems are often not cost effective (Buckley, 2003a; Font et al., 2004a; Hughes, Carlsen, Crilley, King, Lee, & Kennedy, 2008). Cost effectiveness is defined as when the national park user pays revenue generated equals or exceeds the system costs incurred (Font, Cochrane, & Tapper, 2004b). However, in Australia, cost effectiveness is difficult to measure as most agencies do not have adequate monitoring in place for accurately estimating costs of their user pays systems (Queensland Parks & Wildlife Service, 2000). Cost effectiveness is seen to be a function of several elements including: fee structure, compliance rate, and effectiveness of monitoring and enforcement. Fee structure relates to the range in dollar values at which national park user fees are set within a given parks management system. A fee structure may range from a single flat rate for all parks and users through to variable rates according to factors such as park location, type of activity and socio-economic status of users. It is considered that setting fees according to the total cost of managing parks and providing visitor services and amenities would result in prohibitively high fees for segments of the community with limited financial resources (Buckley, 2003a; Font et al., 2004a). This could exclude some segments of the community from access and the associated
benefits of experiencing publically owned national parks (Font et al., 2004b; List, 2006). Consequently, concerns for equity of public access to national parks as public open space commonly result in fee structures that include exemptions or discounts for specific economically disadvantaged groups, such as the unemployed or those on a pension (Richer & Christensen, 1999). While considered socially responsible, user fee discounts potentially reduce the cost effectiveness of the system, resulting in a reduced capacity to supplement park management budgets. Together with a lack of adequate measurement of system costs, this may undermine the cost recovery function of the user pays system.

The compliance rate can be a significant factor determining the cost effectiveness of a park user pays system. In this sense, compliance rate refers to the proportion of national park users who pay the required access fee. Debate in developed nations regarding the right to a clean healthy environment and access to publically owned land has led to public resistance to park user pays fees, often resulting in reduced compliance (Lee, 2000; Lee & Pearce, 2002). Paying a fee to access public land raises the issue of double taxation where park visitors pay for management of parks through their government taxes and are then required to pay again when accessing the park. Conversely, compliance rates tend to be higher when a park user pays system has public support. Public support for a user pays system is likely to be higher when the revenue is demonstrated to improve national park management, facilities and services (Bengston & Fan, 2002; Bowker, Cordell, & Johnson, 1999). Public support may be boosted further when tangible improvements to the specific park from which fees are collected are evident (Fretwell & Podolsky, 2003; Queensland Parks & Wildlife Service, 2000; Rivera-Planter & Munoz-Pina, 2005). Although public support plays a role, monitoring and enforcement is considered an important element in managing park user pays system compliance (Athanas et al., 2001; Inamdar & de Merode, 1999). This can include
establishment of collection stations, monitoring of visitors and policing by park rangers among other actions. The staff time and resources required to carry out these activities can potentially also reduce cost effectiveness unless efficiently implemented and managed (Winter, 2004). Thus there seems to be a conflict between designing a user pays system with fees acceptable to the taxpaying public that also delivers enough revenue to enable tangible improvements to parks to ensure public support.

**Australian National Parks**

All Australian national parks are located on publically owned land and are primarily funded by tax revenue. Australia is a federated nation with a national Commonwealth Government, six separate state governments and various territories managed by territorial administrations, each with defined government responsibilities. In this government structure, management of national parks within each state is the responsibility of the respective state governments. Each state government has an agency or agencies responsible for conservation and protected area management including national parks. National parks in a given sate are funded using taxes raised by that state government. A state government assigns a budget allocation of funds to national park and protected area management within the given state. National parks located in the various Australian territories are managed and funded by the national Commonwealth Government. The individual states have independently developed policy and legislative frameworks under which the various parks management agencies operate. This strongly influences all aspects of parks management, including how user pays systems are designed, implemented and managed.

All national parks management in Australia is based on the legislated notion that national parks are provided for the greater social and environmental good. Consequently, each state
based national park management system has common threads of policy and legislation including mandates for conservation of wildlife and ecosystems, provision of equitable public access and opportunities for recreation. All but one of the state government legislative frameworks for national park management also includes a cost recovery element and consequently, a requirement for implementation of a park user pays system. The user pays system requirements are also based on the requirement for competitive neutrality. This is a legal requirement that government managed operations cannot undercut the business of private operations in the same sector. Allowing free access to national parks and facilities could be deemed to be unfairly competing with commercial operators of nature based tour businesses and private nature reserves. The user pays systems in each state are structured and managed differently based on the social and political history and geographical context of each state. This includes varying fee structures and varying methods of monitoring and enforcement. Thus, the various state based national park management systems in Australia, founded on common elements of public good and cost recovery, provide an opportunity for comparison and analysis of different systems.

Method

In order to investigate user pays systems and the effectiveness of cost recovery measures, a three stage method was used:

1. A comprehensive review of the relevant literature on user-pays systems.
2. Interviews with representatives of all national park agencies regarding user pays systems across Australia
3. Analysis of the rationale, cost-effectiveness and management of current user-pays systems in Australian national parks.
A review of the literature on user-pays systems was carried out to identify the key components of existing and ideal systems. The review included a model for investigating best practice in user-pays systems in Australia identified by the Australian and New Zealand Environment and Conservation Council [ANZECC] in the report on benchmarking user pays systems (Queensland Parks & Wildlife Service, 2000). The ANZECC model (Fig. 1) included three dimensions:

- cost effectiveness,
- positive public attitude to agency conservation, and
- improved park management and better client services and facilities.

FIGURE 1 NEAR HERE

Based on this review of the relevant literature and modelling the key issues to be identified were: the rationale for the establishment and management of user pays systems; the cost effectiveness and compliance costs of those systems; and the retention of park fee revenue for management of national parks. An interview schedule was developed in order to facilitate the comparison of responses and identify commonality and diversity across the key issues identified in stage one. Table one provides a summary of the interview questions that were developed by the researchers based on the literature review.

TABLE 1 NEAR HERE

In stage two, a series of interviews with conservation and other relevant state government agency representatives with responsibilities in managing national parks was carried out across all Australian states in 2006. A total of 13 senior managers and directors from eight
government agencies were initially contacted via email or telephone and agreed to be interviewed face to face at a time and place convenient for them (in all cases this was their head office). Government agencies represented in the survey framework included the following:

- Great Barrier Reef Marine Park Authority (Qld GBR MPA)
- Queensland Parks and Wildlife Service (Qld PWS)
- Tourism Queensland (do not collect fees but influence policy)
- Tasmanian Parks and Wildlife Service (Tas)
- New South Wales Parks and Wildlife Service (now Department of Environment and Climate Change) (NSW)
- Parks Victoria (Vic)
- South Australian Department of Environment and Heritage (SA)
- Western Australian Department of Environment and Conservation (WA)

Seven of the agencies interviewed were directly responsible for managing national parks and protected areas in their respective states. Two agencies, Great Barrier Reef Marine Park Authority and Queensland Parks and Wildlife Service, were located in the same state but were responsible for separate protected areas, a marine park and all remaining national parks and protected areas respectively. One government agency, Tourism Queensland, was not a parks management organisation, but influenced policy regarding parks management in that state and hence was included in the survey frame. The inclusion of all relevant government agencies ensured that all views of Australian national park managers were represented and that bias towards specific user pays systems was avoided.
Researchers recorded information by taking detailed notes during the interviews. Park managers also provided documentation or additional information forwarded by email. The interviews provided information on the structure and efficiency of specific user-pays systems in an applied context. Interviews provided information relating to the rationale for implementation, details regarding fee structures and revenue, and management of compliance and enforcement. Information was also gathered regarding links between revenue from user pays systems and links to improved park management, services and facilities and support for user pays systems. Information provided included documented data relating to the user-pays system, knowledge gained through experience with the system and opinions on aspects of the system such as its efficiency and potential areas for improvement. Data from interviews in each parks system were collated such that similarities and differences in information provided could be directly compared.

For stage three, the rationale, cost-effectiveness and management of current user-pays systems in Australian national parks and other issues documented in the transcript of 13 interviews were analysed. NUD*ist 6 software was used to conduct text analysis and identify common and unique themes within the interviews and information provided by each agency. Collation of data in this way facilitated the identification of commonality and diversity across user pays systems in Australia.

Findings

Findings are presented under the key headings of rationale, cost-effectiveness, compliance costs and revenue retention and demonstrate a diversity of responses across these key issues.
Rationale

The main stated rationale for implementation of national park user pays systems in all Australian states was a legislated requirement for implementation of these systems (Table 2). That is, park management representatives indicated that user pays systems were a statutory requirement of the various stated based parks management frameworks. Recovery of costs for service provision was a secondary reason for implementation of user pays systems. Elements such as budget supplementation, funds for conservation and control of visitor numbers were less commonly stated. Two agencies in the state of Queensland did not have a statutory requirement to implement user pays systems. One considered their user pays systems a means of controlling visitor numbers and access while the second considered it a means of supplementing their operating budget and furthering the conservation effort.

TABLE 2 NEAR HERE

NSW noted that the implementation of their user pays system was ad hoc based on short term politically motivated decision making processes. It was perceived by the parks managers that the lack of a commercially justified approach to application of fees meant when and where they were applied within the given state was seemingly random.

Interviews carried out for this project again highlighted that the approach to user pays systems at the state park agency level was more influenced by access and equity issues than by economic rationalism (Buckley, 2003a). It was commonly considered by those interviewed in this study that user pays systems based entirely on market forces and a profit motive would result in very high, publically unacceptable and exclusive user fees. This was attributed to the significant investments in infrastructure and services and the complex
administrative system required for managing parks and the user pays system itself. Determining user pays fee levels based only on the costs of the user pays system was seen as not taking the social and political ‘overlay’ into account. As one agency representative mentioned, ‘…we are in the business of conservation, not the conservation business’. This was considered an important element in enabling public access to parks. It also runs counter to the concepts put forward by Athanas et al. (2001), Eagles (2002) and Buckley (2003a) who suggested parks were a collection of facilities and services that users should pay for in the context of a rationalist free market economy. However, providing for equity of access tempers the capacity to recover costs owing to limitations on fee level to ensure equity of public access for the community socio-economic spectrum. Table 3 summarises the annual user pays revenue data for 2006 by agency and what proportion of total parks management costs and user pays system costs this represents.

Cost Effectiveness
Table 3 demonstrates that the park user pays systems were not effective at recovering the costs of maintaining national parks, meaning all state government agencies are reliant on public tax revenue allocations for continued management of national parks. In all but one state, it was unknown whether the user pays systems itself was actually cost effective to operate. The state agency with detailed data had a relatively small area to manage (Tasmania) and had implemented a centralized online fee management and reporting system. The entry fee system had a significant outsourced component were park users could buy park passes at retail outlets in nearby towns. This functioned to reduce the number of park agency staff required to sell entry passes, reducing the costs of system management for the parks agency. The agency also adopted a policy of limited enforcement coupled with ensuring a convenient user payment system. This was based on the observation by the agency that three types of user visited national parks in Tasmania. These were: visitors who would actively
seek to pay for entry, visitors who would pay if convenient to do so and those who would actively avoid payment. The active avoidance types were estimated at about 20% of all Tasmanian park visitors. The agency considered that the cost of pursuing the 20% of park visitors actively avoiding payment would not justify the additional revenue gained. Concentrating resources on development of an efficient and accessible user pays system appeared to counter balance revenue lost through active noncompliance with the system.

TABLE 3 NEAR HERE

As noted by an earlier report on user pays systems in Australia and New Zealand, most agencies interviewed were not able to accurately measure or estimate the costs of their systems (Queensland Parks & Wildlife Service, 2000). This was partly owing to inadequate, inaccurate and inconsistent monitoring and reporting associated with system costs. It was also partly due to the difficulty of measuring costs. For example, several agencies pointed out that assigning a portion of parks staff salary costs (a primary component) to the user pays system was difficult given the many tasks staff undertake. In addition, duties associated with user pays systems, such as collecting fees and enforcement had dual roles, such as public relations (provision of information and positive social interaction) or maintenance tasks. Consequently, it was often very difficult to apportion staff time to specific tasks directly related to the user pays system. One agency stated it had no knowledge of how much their user pays system costs. Most of the remaining agencies interviewed indicated they had only approximate estimates of cost and were not willing to provide a definite figure. The common inability to measure costs of the system means its effectiveness as a cost recovery instrument is difficult to assess.

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Despite the difficulties in estimating costs, park agencies commonly implemented management approaches designed to minimize costs based on the limited budgets allocated by state government. For example, most agencies charged fees for selected parks, not all parks in their state, based on practicality and cost of user fees enforcement. Most Australian states had some national parks located in remote areas away from population centres. These parks often had multiple access points and a minimal staff presence making collection and enforcement of user pays fees difficult. Large travelling distances and the resources required to base staff in these remote locations resulted in high management costs that outstripped any revenue collected from park visitors. In parks where user fees were applied, some agencies had a cost minimization policy of issuing warnings to visitors found to have not paid entry fees rather than legal infringement notices. Issuing warnings avoided costly formal legal processes and was found to be effective in encouraging compliance during subsequent visits.

In contrast, one state agency (NSW) routinely patrolled their parks and issued infringements for non-compliance that triggered legal processes for which the expense to the agency far outstripped the seven dollar entry fee that had not been paid by the visitor. This contrasted with the Tasmanian agency that focussed on designing an efficient, easy to use system and did not actively pursue non-compliant visitors. The result being that Tasmania had the most cost effective user pays system of all state agencies.

**Compliance**

In addition to efficient application of user pays systems and managing public compliance, most agencies noted that staff compliance with managing the system could be problematic. Most park agencies reported they had an ‘old guard’ of staff whose priorities revolved around traditional park ranger concepts of conservation and related park management activities. The ‘old guard’ was seen to include staff who had worked as park rangers and managers for a
considerable period of time and had backgrounds in either a trade or in environmental conservation related areas. These staff were considered philosophically opposed to the collection of park user fees or placed it as a lower priority to other duties. Agencies also noted that many new staff members were university graduates with qualifications in biology, the environmental sciences, or natural resource management. Consequently, they generally lacked financial management and business related motivation and skills. As a solution, one agency noted that they would simply prefer recruitment of business qualified staff to administer user pays systems as, “... you can’t easily teach all conservation trained staff business skills. [It is] ... easier to teach business trained staff conservation skills”. In this instance, the reluctant staff culture could be born of the ‘modern’ conceptualisation of national parks as a means for biodiversity conservation for the greater good based on a growing ecological ethic (Buckley, 2003a; Kellert, 1979). This is reinforced by the laws governing park management that have a first priority relating to conservation while cost recovery is a lower priority.

While the conservation for the greater good ethic may drive staff noncompliance in many cases, some agencies also noted that rangers who live in smaller rural communities were reluctant to enforce user pays systems. As national parks in Australia are often primary recreation areas for the adjacent small local communities, lack of enforcement is considered by some rangers to be necessary in order to maintain a positive standing in the community. This can be difficult to manage when state government agencies often have limited central control over day to day management actions at the park level, especially in remote areas (Hughes & Ingram, 2009).

Revenue Retention
As indicated in the literature, retaining revenue at the park level can function to encourage positive public attitudes and support for user pays systems where the revenue is seen to improve park facilities and management (Bengston & Fan, 2002; Bowker et al., 1999). Interviews with agencies also indicated this to be true for staff motivation to implement and enforce users pays systems. Revenue retention at the park level was considered to motivate staff to collect fees as a means of supplementing limited government allocated budgets. However, in NSW the park management budget allocated to the parks agency was reduced in proportion to the level of revenue collected from fees, removing the motivation of staff to enforce the system. It is apparent that, in addition to public compliance, park user pays systems rely on adequate staff motivation, training and skills to apply the system effectively. Staff non-compliance appears to be strongly influenced not only by the concept of equity of access and parks as a public good, but also the extent of revenue retention that was allocated by each agency.

**Conclusion**

The results of this study raise the issue of whether a user pays system is appropriate for publically owned national parks. Equity of access is enshrined in the laws governing park management in all states of Australia and is integral to the general culture of Australian park management agencies. There seems to be a paradox between the legislated requirement to recover costs and the requirement to ensure equitable public access to parks. This was highlighted in this research by all agencies rejecting the notion that a user pays system should be driven by market forces. This rejection was based on the primary concern that regarding exclusion of a broad section of the public from access to national parks because of their lower socio-economic status. In most cases in Australia, it was apparent that the user pays systems
were not cost effective because the fees were set based on social equity issues and ‘the political context’ rather than the true costs of park management.

Based on these findings, it is apparent that a "one size fits all" approach to user pays systems is not a viable option. This is primarily owing to the diversity of legislative frameworks, revenue and cost structures that were identified in the interviews. However, there are some general principles that park managers may consider when establishing and/or reviewing user pays systems, as follows (Hughes et al., 2008):

- ensure staff are competent in financial management and motivated to actively management the system, this may require training or hiring of appropriately skilled staff;
- retain revenue for parks or districts where fees are collected
- adopt a simple user fees structure and easy access to related passes and payment of fees;
- employ a business management approach to user pays systems; and
- use a discretionary approach to enforcement of compliance with acceptance of a certain level of non-compliance.

As a cost recovery mechanism, national park user pays systems are a reasonable approach only when they are cost effective, when the revenue raised equals or exceeds the costs of the system itself and ideally, the total costs of park management. Because of the restrictions of the equity of access laws under which Australian park management agencies function, agencies encounter significant difficulties in achieving a profitable park user pays system. In all cases the user pays system revenue is far less than the cost of park management, in many
cases the cost of managing the user pays system itself exceeded the revenue it raised. Thus it seems that having a dual purpose of cost recovery and access for all linked to publically owned and government managed parks is not effective. However, adopting the principles identified in this paper will function to minimise system costs and encourage public and staff compliance, improving the efficiency and effectiveness of user pays systems in circumstances where they are required by law.

References


