

Pay to Play in Parks: An Australian Policy Perspective on Visitor Fees in Public Protected Areas

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Many public protected areas worldwide charge fees for entrance, overnight camping, and commercial tour permits. These visitor or user fees raise revenue and may also influence visitor behaviour. Many protected areas are forced to charge fees because government funding is inadequate for conservation and visitor management in the face of rapidly rising visitor numbers and demands. Acceptance and effects of fees, however, depend on the historical, political, legal, economic and social context. Two issues are particularly significant: (a) equity between various social groups; and (b) control and use of funds raised.

Introduction

Aims, scope and significance

Visitor fees and other user charges for recreation in national parks and other public lands are widespread and contentious. This review examines major practical and public-policy issues associated with different types of visitor fees under various types of land tenure and other circumstances. It refers principally to publicly owned and managed protected areas (PAs) corresponding to World Conservation Union (IUCN) Category II reserves. These are commonly known as national parks (Lawton, 2001). The term 'parks' as used in this review, unless otherwise qualified, refers to IUCN Category II reserves. In some federated nations such as Australia, they include PAs under subnational jurisdiction. They may also include areas designated as nature reserves. Comparisons are also drawn from other land tenures where relevant, notably privately owned PAs and publicly owned forests.

The focus in this article is on Australia but comparisons are drawn with other countries where relevant, notably the USA where many historical, political and geographical factors are similar. In particular, many of the issues reviewed here were considered in an American context by Harris *et al.* (1987), and more recently in joint special issues of the *Journal of Park and Recreation Administration* (see especially Bowker *et al.*, 1999; Krannich *et al.*, 1999; Martin, 1999; Trainor & Norgaard, 1999; Watson, 1999) and the *Journal of Leisure Research* (Watson & Herath, 1999). Watson and Herath (1999) identified seven key themes: tradeoffs between collective and consumer perspectives; roles of visitor and agency; when to charge fees and what to do with the revenues raised; public support for fees; who is most affected by fees; how managers can assess effects of policy on visitors; and how to integrate science into policy formulation.

Practices and policies in developed and developing nations in other continents may be widely different. For example, international differences in access to land under different types of tenure were considered in 2001 in a special issue of the *Journal of Sustainable Tourism* (e.g. Kaltenborn *et al.*, 2001; McCool & Stankey, 2001; Williams, 2001). International reviews of relevant issues are also available in Lindberg (2001a,b), Munasinghe and McNeely (1994) and World Commission on Protected Areas (2000), and a Canadian perspective in van Sickle and Eagles (1998).

Most national parks are used for recreation as well as conservation, and recreation often includes commercial tourism. Generally, the toolkit which parks agencies use to manage visitor impacts may include both measures to harden the environment, and regulations, education programmes, and economic incentives to influence visitor behaviour (Buckley, 1998, 1999; Newsome *et al.*, 2002).

Management costs money. Parks need money to protect, monitor and restore natural environments, endangered species and heritage items, which are subject to impacts from land uses both within and outside their boundaries. This includes managing increasing numbers of increasingly demanding visitors so as to minimise their impacts on the environment and each other, and maximise their safety and enjoyment (Newsome *et al.*, 2002; Watson & Borrie, 2003; Watson & Herath, 1999).

For historical and political reasons, government funding allocations for park agencies in many countries are commonly small relative to both (a) the needs of the park agencies for good management, and (b) the relative economic significance of parks. Parks agencies and conservation groups therefore lobby governments for improved allocations from central treasuries, but commonly with little success. Currently, therefore, many parks agencies are compelled to raise operating funds by charging fees for park users. In some countries and jurisdictions, governments deliberately require or encourage them to charge such fees.

Visitor fees raise funds and influence visitor behaviour simultaneously – no fee can do one without the other. The current low levels of fees charged in most parks both in Australia (Buckley *et al.*, 2001) and worldwide (Lindberg, 2001a,b) do not affect visitor numbers greatly; larger fees generally raise more money and also change behaviour more. But different people respond differently to fees of different sizes and structures.

Visitor fees may be viewed as taxes to raise revenue, as economic instruments of public policy, as visitor management tools, or as prices charged for goods and services in a competitive market. Each of these perspectives is valuable and none is complete.

What do visitor fees include?

A visitor fee is in itself a rather broad and ill-defined term. Parks agencies and other land managers may charge private visitors for entry into the park, admission to particular areas, camping and other overnight stays, and specific activities such as climbing, rafting or diving. They may set up permit systems for commercial tour operators and charge them application, licence and renewal fees, as well as *per capita* fees for their clients which may or may not be the same as

those charged to private recreational visitors for the same activities. They may charge for additional services such as ranger-guided walks and talks. They may rent out equipment and operate transport and accommodation facilities and retail shops, within their parks; or they may grant leases or concessions for private corporations to offer any of these services.

In some jurisdictions and land tenures, land management agencies may also contract with private companies to construct and operate visitor infrastructure of various types, and charge visitors directly. In the broadest sense, any of these might be considered as visitor fees. Some public land management agencies, of protected as well as production and multiple-use areas, may also grant commercial rights for activities such as filming, bee-keeping, fishing and grazing.

Commonly, however, visitor fees are understood to refer to charges imposed by landowners and land management agencies on either independent visitors or commercial tour operators and their clients, for entry, admission, overnight stays, recreational activities and tours, educational walks and talks or use of recreational and/or educational facilities.

In Australia at least, visitor fees are most contentious for private recreational use of public lands, especially PAs. People using private land on a regular basis would generally expect to pay the landowner for the privilege, especially if the use is commercial. Different countries have different social frameworks for public access to private, commercial and public lands. England, for example, has a complex historical network of rights of way, though these are not always respected by landholders. Scandinavian nations have a social tradition, effectively enshrined in modern law, under which members of the public have a 'right to roam' on uncultivated private land, including limited rights to harvest wild produce for personal consumption (Kaltenborn *et al.*, 2001). This 'allemansrätt', however, is being tested at present by the growth of outdoor recreation and its conflicts with farming (Kaltenborn *et al.*, 2001).

In most of the tourism industry worldwide, facilities are indeed on private land and tourists and tour operators pay to use them. This applies, for example, to most hotels and motels, campgrounds and caravan parks, golf courses and marinas, arcades and amusement parks. Similarly, other commercial users of public lands and resources would expect to pay royalties or lease fees, though in some instances the costs of public infrastructure provided to such users exceeds the royalties or fees collected.

Visitor fees for recreational use of public protected areas exclude: costs for actual transport and accommodation services provided at near-market rates, such as buses and hotels within a park, whether these are operated by the park agency itself or by private concessionaires; prices or royalties charged for hire of equipment or sale of food and beverages, clothing, souvenirs, and other retail goods within a park, whether by the park agency or concessionaires; prices paid by commercial tour clients to commercial tour operators for tours operating at least partly within a park; and payments made under special leases and contracts for large-scale infrastructure within the park, including cost-, revenue- and profit-sharing arrangements between land managers and private construction and operating companies. Also excluded is revenue from economic activity outside the park, driven by tourism and recreation within it: e.g. from gateway

service businesses, tourist travel and accommodation, recreational equipment and real-estate transactions.

This distinction is convenient but somewhat arbitrary, depending on the perspective from which it is viewed. The similarities and differences between different types of fees, for example, will appear more or less significant to land managers, tour operators and individual visitors. Similarly, fees which act identically in an economic sense may be readily distinguishable in a legal sense or *vice versa*.

As one example, a visitor who has already entered a park and wants a guided walk may not care, or even know, whether they are paying for a tour led by a member of park staff, by a private guide contracted to the park, by a volunteer, or by a private guide charging visitors directly – especially since many private guides wear uniforms which imitate those of park rangers. If they pay the same price and get the same service and the tour goes smoothly, then from the visitor's perspective these four options will be identical. From the land manager's or tour operator's perspective, however, the options are different in economic terms because the fees received and costs incurred are distributed differently for each option.

The options are also different from a legal perspective, in terms of liabilities and duties of care. If a visitor is dissatisfied or injured, and wants to demand a refund or compensation, then the legal circumstances will prove rather different for each of these options. From a legal perspective, a person carrying out a particular activity in a park as an individual private visitor will always be distinguishable from a person carrying out an identical activity in the same park as a commercial tour client or a member of an organised non-commercial group.

The significance of user fees differs between stakeholders and depends on the size and types of fees, how they are set and collected, and how the funds raised are controlled and applied. For the director of a private park, for example, user fees may be the basis of a business. For the director of a public national park, user fees may be a useful addition to operating funds, an effective tool for managing visitor numbers and activities or a costly administrative inconvenience forced upon them by agency headquarters or central government, which annoys visitors without affecting numbers or behaviour.

For a wealthy tourist making a one-off visit, a user fee may be an insignificant imposition or a small contribution to conservation which they are glad to make. For more impoverished visitors or local residents, user fees may change where they go, what they do or how often they visit.

Similar considerations may apply to commercial tour operators, depending on the business structure and competitive position. For an operator with a strong competitive position and profit margin, a user fee which is small relative to tour costs may be insignificant. Even a park fee which is large relative to other costs may not affect a tour operator's business if the park contains an attraction for which demand exceeds supply, and competing tour operators have to pay the same fees. If there are competing operators with low profit margins and differential access to areas with different user fees, however, then fees may affect some operators significantly.

Political, Legal, Economic and Social Context

Political

The size and structure of user fees, and the ways in which they affect land managers, visitors and tour operators, all depend on context. For convenience, this context may be divided broadly into political, legal, economic and social factors but the distinctions between these categories are by no means clearcut.

The practical ability of land managers to charge user fees depends heavily on the political system in which they live. In areas without stable and effective political systems and law enforcement, land managers may charge whatever fees they can get people to pay, with little accountability. In East Africa in the 1970s, for example, it was commonplace for rangers to supplement their very meagre salaries with gate takings (author, pers. obs. 1974–75). Perhaps it still is. In many developing nations, local villagers may erect road barriers policed with machetes, and exact a road toll from visitors who look as though they could pay. In China, provincial government officials sometimes charge large fees – thousands of dollars or more – to allow visitors to access particular areas (author, pers. obs. 1994, 1997).

The opposite can also happen: visitors may refuse to pay even legally constituted user fees if there is no means of enforcement, particularly if the legal basis for the fees is uncertain. For example, a government agency in the Mentawai Islands of West Sumatra, Indonesia established a daily *per capita* user fee of US\$5 (AU\$10) for surf tours in the region; but some tour operators did not recognise its legitimacy and refused to pay and the fees are currently in abeyance whilst the issue is disputed in court (R. Cameron, pers. comm. 1999, 2001). A similar fee charged for tour boats in Australia's Great Barrier Reef Marine Park, however, is collected routinely by all tour operators and passed to the management authority (author, pers. obs. 2001, 2002). The same applies for an AU\$15 daily *per capita* user fee charged by the state government for commercial whaleshark tours in Western Australia.

In areas with powerful central governments which have strong enforcement capabilities and do not depend on a popular vote, public land management agencies can charge visitor fees with little regard to social equity, economic efficiency or market conditions, unless they are concerned about international competition in the tourist trade. This applies irrespective of political colour, to dictatorships or revolutionary oligarchies alike.

In countries with stable democratic political systems and well-established legal structures including enabling legislation for public land management agencies, visitor fees are subject to a wide range of political constraints, many with a strong historical element. If people have been able to visit PAs in the past without paying visitor fees, or carry out particular activities there, then they may raise strong objections to newly introduced fees, to the point of political action. If habitual park visitors hold strong principles in regard to the function and management of public lands, then they may take such action even if the fees are small. For example, people may decide to go elsewhere, they may take the fees into account in deciding how to vote or they may form political associations and lobby groups.

Even if fees are accepted both in practice and principle, government agencies

may avoid them because of potential political consequences. The current State Government of Queensland, Australia, for example, has a longstanding electoral promise not to charge entrance fees for individual visitors to parks, even though the parks agency itself does already charge camping fees and would like to be able to charge entrance fees, and even though parks agencies in other states do charge entrance fees (Buckley *et al.*, 2001, Queensland Government, 2002).

Legal

In many jurisdictions, visitor fees imposed by parks and other public land management agencies are subject to legal as well as political constraints. These may include: general requirements applying to all government agencies, e.g. in relation to social equity; specific statutes controlling the establishment and operation of the agency concerned; duties under common law; and contractual obligations. In addition, in countries with federal systems of government, there may be constitutional constraints on the ability of different levels of government to impose taxes and charges of different types (Buckley, 1991).

For example, establishing legislation may specify whether the agency concerned has the legal power to charge visitor fees and, if so, within what limitations. Statutes or subsidiary instruments such as regulations and legally-adopted management plans may define what categories of fees may be charged, maximum fee rates and who has authority to set and collect visitor fees. They may also set other management conditions, such as the powers of the parks agency to restrict access, numbers, activities or length of stay, which will change the context in which visitor fees operate.

In some jurisdictions, charging a visitor fee may create additional obligations and liabilities for the land management agency. Note that such obligations may be altered by many other factors as well as fees; these may include, for instance, infrastructure, signage and advertising. Very broadly, wherever an agency charges a fee, particularly if it is similar in magnitude to fees charged by private landholders for similar services, then the agency is likely to have greater obligations towards fee-paying users. This might include, e.g., an obligation to improve facilities at public campsites or an increased liability for public safety (McDonald, 2001).

Similarly, where an agency charges permit fees to commercial users such as tour operators, this may also create additional responsibilities and liabilities as well as additional expectations – particularly if the revenues raised exceed collection and administration costs for the permit fee system.

Economic policy

User fees are an economic instrument, and their economic context is especially critical to their effectiveness. For example, the strength of a country's economy and currency may influence whether it charges fees for visitors to enter its national parks and whether it charges a differentially higher fee for foreign nationals. Similarly, currency exchange rates will influence the ability and willingness of foreign visitors to pay such fees.

Even considering only domestic visitors within a relatively strong economy, government economic policy may have a strong influence on user fees. The economic policies of specific governments commonly depend on their political

power bases. Governments which treat conservation and recreation in parks as part of their electoral mandate may provide sufficient central funding to park agencies that visitor fees are unnecessary. Governments with a political power base in rural regions may try to use protected areas as a means to promote regional economic growth in rural regions. Governments with a power base in large-scale industry sectors such as mining, forestry and agriculture are likely to give these sectors subsidised access to public land, sometimes including national parks. In Australia and other countries, for example, logging companies are granted rights to cut timber in publicly owned forests at royalties which do not even cover public infrastructure costs, even though the economic value of recreation in those forests may be orders of magnitude higher (Ward, 2000).

In addition to the political base of the government in power, its economic planning and budget processes and priorities also influence visitor fees. For example, governments in most democratic nations allocate some of their budgets to assisting particular geographic regions and industry sectors. They may invest taxpayer funds into propping up an ailing industry or company or promoting a sporting event, on the grounds of saving or creating jobs. In Australia in 2001, for example, dairy farmers received a government handout of around AU\$30,000 (US\$15,000) each, solely on the grounds that deregulation of milk prices, which were previously subject to price supports, had lowered their incomes. This brought the total taxpayer assistance to the dairy industry in 2000/01 to AU\$ 1.92 billion, almost US\$1 billion (Australia, Dairy Adjustment Authority, 2001)

Note that governments do not necessarily expect to receive a financial return on such investment through increased tax revenues, since governments trade in votes as well as money. In such circumstances they are dealing with a social rather than a strictly financial measure of economic value: i.e. they base their decisions on the perceived economic value of the outcome to a part of the society which they were elected to govern. This social economic value may include not only the financial scale of economic activity and the cash income received by the individuals concerned, but the value placed by the citizens concerned on factors such as their time, their investment in a particular form of employment, and the opportunity to continue a particular lifestyle in a particular place as part of a particular social group.

Whilst a government may consider social economic value to justify some decisions, however, for other decisions it may consider only actual cash revenue received by one of its agencies. For example, in both Australia and the USA it has now been demonstrated repeatedly that the economic activity associated with recreation and tourism in public forests is at least an order of magnitude greater than that associated with logging (Driml, 1997; USDAFS, 2000; Ward, 2000). In addition, the environmental impacts – and hence current and future on- and off-site restoration costs – are at least an order of magnitude lower for recreation than for logging. If the rationale were economic rather than political, Australian governments would treat tourism and recreation as the priority land use for public forests, with timber production as a secondary use, i.e. the opposite of the current priority.

In Australia, public forests are held under state rather than federal jurisdiction; and state forestry agencies argue that the relative social economic value of tourism and timber in their forests is irrelevant to them, since they receive cash

revenue from timber royalties but not from tourism and recreation. Even if the economic activity associated with forest-based tourism generates greater tax revenue than that associated with timber production, this will not necessarily change the behaviour of Australian forestry agencies, for three main reasons. Firstly, in Australia income taxes are collected by the federal government and reallocated to the state governments, not necessarily *pro rata*; secondly, forestry agencies receive their funds from state government treasuries, not directly from users; and thirdly, timber towns may be of more value to governments as sources of votes than sources of money.

This would therefore seem to be a prime opportunity for the imposition of user fees. If Australian public forestry agencies were able to charge directly for any type of use, whether for timber production, water supply or recreational access, and also to keep the revenues raised, this could lead quite rapidly to significant changes in land use practices. In the few cases where Australian public forest agencies have deliberately constructed tourist attractions such as canopy walkways, these have been highly successful financially (Dowell-Hentall, 2001).

For parks, their highest value to the human economy is conservation of biodiversity and air and water quality, to maintain a global ecosystem capable of supporting a human economy at all (Costanza *et al.*, 1997). This is true whether from a legal perspective a park was established primarily for conservation, primarily for recreation or for both equally. Except where a water supply utility buys water from a park catchment, however, or a pharmaceutical corporation buys the rights to biodiversity prospecting, these benefits are public rather than private, so park agencies cannot raise operating funds from them directly but only via government budget allocations. And government budget allocations rarely reflect the value of conservation, because conservation benefits generally accrue at larger scales, in both time and space, than those at which election processes operate. Unless a government's political power base assigns high value to conservation benefits at a worldwide scale over periods of decades, therefore, governments will always underfund park agencies for their primary conservation function.

Recreation in parks, including commercial tourism, is always secondary to conservation in its ultimate value to the human economy, but it can provide benefits which can be captured quickly and locally, and, therefore, have more political significance. Private recreation, in parks as elsewhere, provides benefits to human health and wellbeing, and income and employment for equipment manufacturers, transport and accommodation providers, and all their suppliers. Commercial tourism provides all of these benefits, though not necessarily to the same degree as private recreation; and it also provides income and employment for tour operators and guides. All of these influence political processes, so it is not surprising that governments focus on the recreational uses of parks. Increasing recreational use, however, increases park operating and management costs; and failing any other options, this forces park agencies to recover these increased costs from users (Watson, 1999).

In both Australia and the USA, therefore, and perhaps also in Canada and other countries, current federal governments encourage logging in preference to recreation in public forests even though recreation is worth more to the electorate

and the economy in both the short and long term, and even though revenue from the higher-value use could be captured by the public land management agency through recreational user fees (Ward, 2000). And they encourage recreation in preference to conservation in public parks even though conservation is worth more to the economy in the long term, and expect the land management agency to capture revenue from the lower-value use through recreational user fees (Buckley *et al.*, 2001). This is political sense but economic nonsense.

Visitor fees in national parks, forests and other public lands, therefore, are not the same as prices charged by private landholders. They are set in a context of political strategy not business planning.

Social

Visitor fees also operate within a social context. The political, legal and economic issues outlined previously are of course all part of an overall social context. In addition, however, many people simply object to paying to enter or use public lands. Some of the most common objections are based on the following arguments:

- strong social tradition of a general right of access even on private land, as in Scandinavian nations (see, e.g., Kaltenborn *et al.*, 2001);
- historical public rights of way, as in the United Kingdom;
- philosophical objection to double taxation – taxpayers have already paid for protected areas;
- economic inefficiency – it is a wasteful way of funding a public good;
- free access historically – why should fees be introduced now? and
- local residents' expectations – continuation of access even if tenure changes to protected area.

Perhaps the most widespread of these objections is the issue of double taxation. For individuals who rank environmental conservation as a high priority for public spending, it rankles strongly that governments will devote public funds to industrial subsidies in preference to park management. As noted earlier, however, there are political reasons why this happens. A related objection is that collecting park operating funds from individual users has a high administrative cost compared to collecting park operating funds within the general taxation system. To illustrate this, imagine if all road construction and maintenance were funded by road tolls. Many longstanding low-impact private users of parks and wilderness areas also have strong objections both (a) to the growth of high-impact uses, especially motorised uses; and (b) to the use of parks by commercial tour operators, for profit rather than personal recreation.

Commonly, the degree of acceptance or objection to fees by users depends on the purpose to which the fees are put, and the visitors' confidence that the fees will be well used (Vogt & Williams, 1999). In general, visitors seem to be more willing to pay fees if they are confident that the fees will be used for management in the park in which they are paid. Of course, this issue may be somewhat moot if visitor fees are offset by a corresponding reduction in government budget allocations.

Characteristics and Constraints

Control and use of funds

Visitor fees for public protected areas and other public lands are set by a wide variety of mechanisms and influenced by a wide range of factors, of which the commercial balance between demand and supply, i.e. 'what the market will pay', is typically only a minor consideration. In Australia, for example, fees may depend on historical precedent, level of facilities, cost recovery and so on (Buckley *et al.*, 2001).

Even though visitor fees are not set in the same way as business prices, they are still subject to many of the same market forces and economic considerations. From the perspective of visitors who pay the fees, they are part of the price to enjoy a particular experience; and other competing experiences are available at competing prices. From the perspective of commercial tour operators, they are a cost paid to a supplier and recovered, as far as market conditions allow, from clients. From the perspective of the land manager, they are a source of income and sometimes also a management tool.

Perhaps the single most important issue in raising funds for park management from visitor fees, is who controls the funds once they are raised. This is important not only for land managers, but also for environmentally concerned visitors who want to see their fees spent on conservation management and tour operators who want to see the fees spent on visitor infrastructure. Some of the options (Buckley *et al.*, 2001) are:

- fees retained to manage the specific activity from which they were raised;
- fees retained in the park where they were raised and used for visitor infrastructure;
- fees retained in the park where they were raised and used for conservation management;
- fees retained in the region where they were raised, but not necessarily the same park;
- fees retained by the parks service, but not necessarily in any particular region;
- fees retained for park management but in a trust account not managed directly by the parks service;
- fees retained by the government environment portfolio, but not necessarily the parks service;
- fees paid into general revenue for the government concerned.

In each of these cases, the impacts of the initial fund allocation and control also depend on any offsetting mechanism adopted by a higher level of government. For example:

- the park manager allows a particular activity to keep fees but allocates less from park budget;
- the regional park director allows an individual park to keep fees but allocates a smaller budget from region;

- the parks service allows a region to keep fees but allocates less from the central budget; and
- the government treasury allows the parks service to keep fees but allocates less in the annual budget.

Many different hybrid options are also possible. Higher levels of the parks service or the government may take a portion of the fees and allow the lower levels to retain the remainder. Or they may take the entire amount but give part back. Or conceivably, they might provide an additional allocation proportional to the fees raised, in the form of a *pro rata* matching grant. This last, however, does not seem to be common, at least in Australia (Buckley *et al.*, 2001)

Different stakeholders may have strong views on how funds raised from visitor fees should be allocated. Typically, for example, tour operators think fees should only be used to upgrade visitor infrastructure. Of course, the primary tourist attraction in PAs is generally the natural environment, not built infrastructure, so this argument may not be very logical. True, the natural environment is enjoyed by individual visitors as well as tour clients, but in most cases individual visitors also have to pay visitor fees (Buckley *et al.*, 2001; Watson, 1999; USDI & USDA, 2001). Again, some protected areas receive many more individual visitors than tour clients; but for others the reverse is true. And some commercial tour clients may have lower *per capita* impacts on the natural environment than some individual visitors; but the reverse may be at least equally common.

In any event, however, this issue is largely irrelevant. Park management agencies have to spend money on visitor management as well as conservation management and in many parks the former consumes far more of their funds than the latter. Even if visitor fees are tied to visitor infrastructure, other funds are then freed for conservation management.

Administrative efficiency

As a source of income, it is in the land manager's interests to set and collect fees as efficiently as possible. Given that fee levels are subject to strong political constraints which may prevent land managers from charging fees as high as markets would bear, the main focus is on minimising the administrative costs of collection (Richer & Christensen, 1999; Rosenthal *et al.*, 1984). There are many components to such costs, including

- the construction, repair and maintenance of fee collection booths and boxes and visitor-centre counters,
- the salary costs of people to staff toll booths or visitor centres, or collect fees from deposit boxes,
- the stationery costs for fee-collection envelopes etc.,
- the salary costs for staff to answer complaints and queries about fees,
- the enforcement costs, including inspections, prosecutions etc.,
- the costs of secure cash handling, storage and transfers,
- the salary costs for administrative, accounting and audit staff,
- the increased infrastructure costs occasioned by higher visitor expectations once fees are paid,

- the increased liabilities occasioned by higher duties of care once fees are charged.

The administrative costs of collecting recreational fees have been estimated at around 20% of revenue for the US Recreation Fee Demonstration Project (USDI & USDA, 2001). This estimate does not incorporate all the components listed here. Where infrastructure and management systems to control visitor numbers, access and activities already exist, however, the marginal costs of collecting fees would be reduced accordingly.

Effectiveness as a direct visitor management tool

As a direct visitor management tool, visitor fees will generally only be effective if they change the behaviour of visitors in a way which helps the land management agency in meeting its overall objectives. For example, these may include: reducing overall visitor numbers; redirecting a particular recreational activity to a specific area; or encouraging visitors to reduce individual *per capita* impacts during particular activities.

Visitor fees are only one of a range of management tools available to achieve any of these goals. Fees will only be effective as a management tool if

- (1) they are large enough to influence visitor behaviour significantly;
- (2) they change visitor behaviour in the way the management agency wants, rather than some different and possibly adverse way;
- (3) they do not conflict with other management goals such as social equity; and
- (4) their net cost is not greater, relative to their effectiveness, than that of alternative management tools.

These factors are not independent. For example, fees which are large enough to influence behaviour are also more likely to be inequitable. Hence, fees for tourism and recreation in public lands are more commonly used to raise revenue from visitors rather than to influence their behaviour directly. This revenue may then be used to offset visitor management costs.

As noted earlier, however, under some circumstances a small fee may have a large influence on behaviour, whilst under other circumstances a large fee may have only a small influence. In northern New South Wales, Australia, for example, camping fees commonly apply in public parks but not in public forests, and even though the fees are only a few dollars per person per night, local residents and habitual visitors tend to gravitate to the forests rather than to the parks (Ward, 2000). This may not be due entirely to fees, however, since there are also fewer restrictions in forest areas. In southwestern USA, recreational four-wheel-drive users apparently choose free-access beaches in preference to those which charge user fees (Schneider & Budruk, 1999). In Himachal Pradesh, India, in contrast, the state government charges a fee of US\$350 per person per week for commercial heliski operations (Himachal Helicopter Skiing, 2001); but since the cost of a week's heliskiing is around US\$6000 per person, the fee does not affect the number of visitors.

These elasticities in demand depend on a wide range of factors (Knapman & Stoekli, 1995; Lindberg, 2001a; Lindberg & Aylward, 1999), including:

- (1) the size of the fee and the visitors' personal convictions;
- (2) their investment of time and money to reach a particular destination;
- (3) the way in which the fee is packaged;
- (4) the point at which the visitors became aware of the fee's existence;
- (5) availability, distance and price of alternative sites for their preferred activities; and
- (6) the time of year and degree of crowding.

Equity

Most public land management agencies in democratically governed nations, and parks agencies, in particular, are required to ensure that any recreational opportunities they provide are available equitably. Even if this is not a legal requirement, it is likely to be a political one. From a practical park management perspective, equity is a minefield, since different social groups have widely differing conceptions of equity (Krannich *et al.*, 1999; Lindberg, 2001b; Martin, 1999; More & Stevens, 2000; Richer & Christensen, 1999). In addition, some argue for equity in principle, in a legal sense; whereas others argue for equity in practice, which may require active measures to counteract socioeconomic differentials. For example, equity may include:

- Equity in principle between individual citizens: should what's available to one be equally available to all, at least nominally?
- Equity in practice between socioeconomic groups – should poorer people have an equal opportunity to enjoy public parks, even if they have lower ability to pay fees? (More & Stevens, 2000).
- Equity between citizens and foreigners – should the latter have to pay higher user fees? Should this still apply if the area is World Heritage and nominally available to all countries equally?
- Equity between nearby residents and those living further away – given that the former are likely to want to visit more often, should they pay lower fees per visit?
- Equity between people of different ethnic origin, urban/rural upbringing, religion, etc. – should people have equal opportunity to use public parks for their own preferred activities, even if these preferences differ between people with different social backgrounds?
- Equity between different user groups – should people have equal rights to use parks for different types of recreation, even if some types have far greater impact on conservation values and other users?
- Equity between individual visitors, non-profit recreational groups and commercial tourists – should they all have precisely the same rights and responsibilities and pay the same fees; or not?
- Equity between industry sectors – given that governments often subsidise other industry sectors through cheap access to land and primary resources and lax environmental standards, should the tourism industry get preferential access to public land of high scenic value, and if so should that include parks?
- Equity between tourism operators in different countries – given that other costs are higher in some countries than others, should tourism operators in

high-cost countries get cheaper access to that country's public lands to offset the other international cost differentials?

Some of these questions may seem quite ridiculous, but all of them have been put forward quite seriously at one time or another. Land management agencies which impose user fees of any type are likely to be lobbied by a wide range of interests claiming inequitable treatment. It is perhaps a measure of their financial desperation that parks agencies charge visitor fees at all.

Individual or Commercial Usage?

A number of erroneous or misleading arguments have sometimes been advanced in attempts to gain increased privileges for commercial tourism in public parks in Australia.

For example, the tourism industry has argued that it should have some special rights to parks, in the same way that graziers and ranchers have some special rights to public pastoral lands, loggers have some special rights to public forests or miners have some special rights to mineral deposits. This is incorrect for three reasons. The first is that these other industry sectors do not necessarily have any special rights in perpetuity, but simply because of historical land-use planning and current leases and contracts. As other uses such as tourism become more valuable in these areas, governments may well grant these new uses a higher priority than current land uses.

A second and more fundamental reason is that the highest economic value of PAs, and generally also their legal basis and highest management priority, is for conservation. Certainly, some jurisdictions have special recreational land tenures and, in those areas, recreation is the highest land-use priority. But those are few compared to PAs where conservation is the top priority.

And a third reason is a simple legal one: where public PAs are required to provide for recreation, this establishes a duty for the management agency to allow individuals to enjoy these areas as private citizens for private recreational benefits but not as commercial entities for commercial profit. Tour operators have rights to the same benefits as others if they enter parks as private citizens but not if they enter as commercial businesses.

Similarly, it has been argued by some Australian tourism interests that parks should operate in a more 'businesslike' manner. On examination, however, it becomes apparent that this is not at all what commercial tour operators want. If parks acted as businesses they would charge for entry and activities according to what markets would bear, with no concerns for social equity. Just like airlines, they would charge higher fees for parks, seasons and activities in higher demand, and for bookings made at different times, so as to maximise income from those willing to pay, even if this disadvantaged those with fewer financial resources. Just like insurers, they would charge higher fees for visitors with a higher risk of costly environmental or social impacts or a higher likelihood of lodging compensation claims. They would install infrastructure only where increased fees could reap a profit from the investment. They would manipulate demand and supply by limiting area and times of access so that fees could generate maximum profit.

Private reserves can and do follow all of these strategies. They maximise profit

for the landowner who, for private parks, is generally also the tour operator (Buckley, 2003). In public national parks, however, the landowner and the tour operators are separate entities. Quite apart from the legal and social constraints on public park management, a strictly businesslike approach to commercial tourism would generate revenue for the park, not for the tour operator. From a private tour operator's business perspective, the highest profit can be generated if they can gain exclusive rights to particular areas or activities in public parks, at a price below that which their clients will pay. Where this has happened historically, the tour operators concerned have made large oligopoly profits. Commercial rafting on the Grand Canyon is perhaps the classic instance (Grand Canyon Private Boaters Association, 2002; McCulley, 1999). In reality, it appears that tour operators do not really want park managers to become more businesslike: they want park managers to grant them profitable privileges.

Ironically, tour operators and tourism industry associations in Australia which have argued that parks should be more businesslike in their operations have simultaneously complained that parks are competing with them by offering talks, guided walks and other visitor services in competition with private tour operators (Tourism Council Australia, 2000).

Public parks have public duties. Any public land management agency which gives away public rights to private interests without making reasonable efforts to ensure the best net return to the public, considering both cash income and economic, social and environmental costs, is in breach of its public duties. This may be of little concern if the rights concerned are small and short-term, such as a one-year non-transferable tour operating licence. It is of much greater concern if the rights are large and long-term, such as a tradeable operating licence valid for many years or even in perpetuity, or approval for a commercial infrastructure development. Of course, these concerns apply to many public resource management agencies, not only parks. Logging and mining leases change hands at prices many times the value of capital investment; rights to collect crayfish or abalone, or indeed to operate taxis, trade at prices many times the annual income from the activity concerned.

It is often argued that the private sector is better at business than public land management agencies, so public national parks should contract out commercial operations rather than trying to run them themselves (Tourism Council Australia, 2000). This is often correct but only so long as the park agency retains the right to control commercial operations so as not to interfere with its primary conservation goals; and only so long as the commercial partnership arrangements are negotiated and agreed freely and willingly by all parties, not as a result of political manoeuvring by commercial interests more powerful than parks staff. Partnerships work only by mutual consent, not coercion (Bramwell & Lane, 2000; Buckley, 2002).

In addition, private businesses sometimes go bankrupt, sell off assets in firesales or get bought out and asset-stripped in hostile takeovers. If public parks enter into partnerships with private businesses, the public assets need to be protected. Finally, contracting out is itself a business process. There are certainly many instances where public agencies have improved efficiency by contracting out services to private providers; but there are also many instances where private contractors have made enormous profits at public expense, just as there are many

instances where business partnerships have yielded a profit to one partner at the expense of the other.

Conclusions

Visitor fees for visitors in national parks and other public lands are not always efficient, effective or equitable but they are widespread and likely to continue and increase as recreation in parks continues to grow far faster than government funding for park management. There are innumerable different mechanisms and models for visitor fees; and optimal fee structures, rates, collection mechanisms and allocation depend on the political, legal, economic and social context in which each park management agency operates. Currently, fees are generally used to raise revenue rather than as visitor management tools: where parks want to restrict visitor numbers or activities for environmental or social reasons, they generally use non-economic mechanisms rather than raising fees, for reasons of social equity. Whilst many parks are coming to rely on visitor fees, these fees generally make up only a small proportion of their total budget and the costs of collecting the fees are relatively high. In some cases there may well be a place for paying to play in parks; and hybrid funding models deserve further attention. As a means to fund the primary conservation function of protected areas, however, visitor fees alone do not seem to be the best option.

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