

Collection of Essays on
EQUITY AND ACCESS
to natural areas

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In the role of the Government's policy advisor on tourism the Ministry of Commerce is committed to the sustainable development of New Zealand as a visitor destination. The challenge is to obtain the benefits from visitor growth while effectively managing the increased demands this growth places on host communities and the environment.

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**NATURAL AREAS:
ACCESSIBILITY, ENTRY, AND EQUITY**

**An essay for
Ministry of Tourism
Wellington**

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A very large proportion of New Zealand's land area is reserved for conservation and recreation purposes. The Department of Conservation claims responsibility for the management of thirty percent of New Zealand land. Entry to this land is regarded as free - there are no entry charges. A system which provides for free entry may superficially sound to be equitable, but care needs to be taken to specify just what is meant by 'fair.' The approach taken in this essay is an application of the 'benefit principle' - the people who benefit from actions should contribute towards their costs. This essay contends that users of natural areas such as National Parks should contribute directly toward the costs of operating the parks, and non users of parks are unfairly treated by the absence of charges for use of parks. The argument that free entry can be inequitable may be highlighted when the major sources of users of these areas are considered. Rapidly increasing numbers of overseas tourists are now major users of some of New Zealand's most popular natural areas.

However there are other areas of New Zealand which provoke concern about access, entry and equity. Approximately 2.5m ha or 10 percent of New Zealand's land area, are Crown owned lands which are used for pastoral farming, recreation and other activities. Entry to these lands is often the subject of debate as the Land Act gives trespass rights to lessees of the land. Recreationists point out that they often have indifferent quality access to these areas which are publicly owned. Trespass rights also reside with landowners on freehold land, but recreationists may aspire to recreate on some of this freehold areas. Access to these areas for recreation can also be declined by landowners. A good case can be made for charges for use of facilities provided on these lands, but an argument can also be advanced that the general public and recreationists in particular, should not be excluded from recreation opportunities on leasehold land, or even on some freehold land.

1. Access and Entry

The National Parks Act 1980 states that the public has freedom of entry and access to parks for ... inspiration, enjoyment, recreation and other benefits. In practice, freedom of entry may be of little consequence in determining use of National Parks and Reserves, and other natural areas. Usage is strongly influenced by accessibility as measured by the time and other costs required to reach the area and to recreate there. New Zealand National Parks and Reserves are typically distant from major centres of population, and time and travel costs are a significant barrier to use for many people. The growth in usage of these areas which has occurred during the last fifty years can be partly attributed to reductions in the real costs associated with reaching the areas. Gazetted wilderness areas by contrast have very low usage rates precisely because they are distant from roads and airstrips, and access is difficult and

costly. The high 'price' to be paid for use of wilderness areas deters all but the most dedicated users Cullen (1985).

However a clear distinction should be drawn between access to these natural areas and the use of services provided at these areas. The National Parks Act allows for freedom of entry and enjoyment of the Parks but it does not guarantee users free use of services provided in Parks. Very few visitors to National Parks do not make use of some of the services provided by taxpayer funding. These services can include visitor information centres and information, weather forecasts, intentions books, tracks, huts, rubbish collection services, rescue services, and many more. At present some of these services are available free of charge, others require payment for use.

On other Crown owned land in New Zealand, access for recreation purposes is often at the discretion of the leaseholder, for the Land Act grants trespass rights to leaseholders. Other legislation often provides some avenue for access to these regions or the land beyond them, for outdoor recreation. Roads, marginal strips, 'queens chain' and other provisions give some access rights to these regions. Often however these rights have limited value because of the difficulty or inconvenience associated with access via the marginal strips or other means. Recreationists can and very often do request and receive permission to recreate on these lands. The underlying issue on these areas is the public perception that the lands are publicly owned, and the lessees who own grazing rights on the land, but not recreation rights, or rights to the landscape, do hold trespass rights and can block members of the public from outdoor recreation and other activities on the land, or on the land beyond.

On freehold land, access for recreation purposes is at the discretion of the landowner. Outdoor recreationists can negotiate access agreements with landowners, and very often this is simply a matter of asking permission and being granted approval to tramp, climb, fish, or hunt in a nominated region. Recreationists and landowners can agree on a price for use of facilities or services provided on these lands such as huts, tracks and transport.

Some general conclusions are warranted: in New Zealand recreation on natural areas very often involves considerable expenditures of time and money to reach those areas because they are distant from most population centres. If we use the term *access* to describe the process of reaching a natural area, then access is typically costly. If the term *entry* describes events beyond the carpark, then entry conditions vary in New Zealand. On National Parks and Reserves, entry is uncontrolled and

there are no charges for entry. On land held in other tenures, entry is very often at the discretion of landowners or leaseholders, and the conditions of entry and use have to be negotiated with the landowners or leaseholders.

2. Equity and use of natural areas

Equity connotes fairness, so what is fair in the context of outdoor recreation on natural areas, particularly regarding the conditions of access, entry and use? A widely quoted idea is the 'benefit principle', the people who benefit from some service or activity should pay Walsh (1986). Access to natural areas as we saw above, typically involves considerable expenditures of time and money, and these are paid by the people who benefit from the travel. The Travel Cost Method devised by economists, uses these expenditures as a guide to the magnitude of the benefits which recreationists will receive from the natural areas.

In New Zealand, access to natural areas is typically initiated and paid for by users. Acceptance that this is fair requires agreeing that it is fair to allocate goods and services solely by price and purchasing power as determined by the existing prices and income distribution. Many people argue that the allocation of some goods should not be determined solely by price and income. Access to National Parks and other natural areas can be argued to be merit goods which should be equally available to all. If this argument is accepted then policies can be proposed to ensure that the major barriers to access and enjoyment of these areas are reduced. The obvious barrier to tackle is the costs involved in reaching these natural areas as these costs are likely to be the major impediments to their use by low income people. This problem could be tackled by subsidisation of travel costs to these areas, but an alternative approach is income redistribution schemes in favour of low income people to increase their purchasing power and enable them to have greater access to all goods and services.

It is worth stating explicitly that a policy of zero charge for entry to natural areas will often contribute little toward reducing the barriers to use by low income people, as the major barrier to use is likely to be the travel and time costs involved in reaching these areas rather than any entry fee. Travel Cost Method studies in New Zealand and in many other places, confirm the importance of access costs in determining visitation rates to natural areas, and provide plenty of data about the range of travel costs to reach these sites Woodfield and Cowie (1975), Kerr et al (1986).

Entry we have defined as actions or requirements beyond the carpark or to cross the boundary. In New Zealand, entry to National Parks and Reserves involves zero

charge, but some services provided in Parks and Reserves are available only by payment of fees. This situation can be examined to test whether it is fair or equitable. Zero priced entry treats everyone equally, whether they are a taxpayer of New Zealand, a non taxpayer, or a visitor. Provision of National Parks and Reserves involves expenditures to construct and maintain information centres, tracks, huts, and other facilities. In some circumstances there are other non-cash costs, namely congestion costs and opportunity costs associated with use of the land.

If those are the costs what are the benefits from National Parks and Reserves? To economists these areas appear to provide an array of benefits which they call use values, option values, existence and bequest values. People can benefit directly from visiting national parks to enjoy the beauty of the area, or in the words of John Muir, 'to climb the peaks and get their good tidings'. Secondly, people might value the option of visiting and using a national park at some time in the future. I have yet to climb Mt Ruapehu and may never do so, but I would be prepared to pay something to keep open my option to do so in the future. Third, many people may never visit a National Park, and may have no expectation of visiting, but can still derive value from knowing of the existence of the park and the knowledge that the park will be available for others, including future generations, to visit and enjoy.

It is apparent from this range of types of benefits that very many people in a society benefit from the existence of National Parks and Reserves, and by application of the benefit principle noted above, should contribute to the costs associated with maintaining those areas. Option, existence and bequest values associated with National Parks and Reserves can accrue to all citizens of a country. Given the diffuse spread of these benefits, basic provision of these areas via taxpayer funding seems appropriate and fair. Basic provision will ensure that the existence, bequest, and option values associated with these areas are maintained.

However an excellent case can be made that direct users of these areas should also contribute directly towards the costs associated with their use. Again this seems to be a straightforward application of the benefit principle. Users benefit disproportionately compared to the general public, and the majority of visitors to National Parks and Reserves will make use of some of the facilities provided. Charges of some type seem justifiable to offset the costs of providing these services to users, and to provide a signal to users of the real costs associated with their use of these areas.

These charges need not meet all of the costs associated with establishment and maintenance of parks and reserves, because as argued earlier, general taxpayers benefit from these areas and should under the benefit principle, also contribute toward the costs involved. A growing proportion of the visitors to these areas are overseas tourists, who pay goods and services tax on their purchases in New Zealand, as do New Zealand citizens, and hence contribute toward the basic provision of parks and reserves. Those tourists who visit National Parks and Reserves, and impose direct costs because of their visit to those areas, could also be asked to contribute directly towards those costs by way of user charges. These direct costs can in some circumstances include congestion costs, but should not include opportunity costs associated with basic provision of these areas, as that cost should be borne by the general community. As tourist and outdoor recreation numbers increase, and the pressures on facilities increases and congestion worsens, the case for user charges strengthens. Charging visitors, whether New Zealanders or tourists zero price for entry and for use of services provided in National Parks and Reserves, appears inequitable. Again we should be explicit - there appears to be a good case on equity grounds for charging users of these areas for some of the costs associated with use, but the case may be just as strong for New Zealand users as it is for tourists.

Calculations could be completed to determine whether the contributions received from tourists via GST receipts, compared to the costs they impose through visits to National Parks and Reserves, are in similar proportion to the revenues received from New Zealand taxpayers compared to the costs New Zealanders impose through visits to National Parks and reserves. If the ratios are similar for the two user groups then there appears to be little reason to charge tourists differing amounts for entry and use compared to the charges for New Zealanders.

Can the benefit principle also be applied to outdoor recreation on other natural areas besides National Parks and Reserves? Outdoor recreationists visit these areas because they expect to derive benefits from their activities. If there are costs associated with their use of these areas, the benefit principle suggests they should contribute towards those costs. These costs which are directly related to the outdoor recreation activities could include provision of tracks for vehicle and foot traffic, stiles, bridges, toilets, shelters such as huts, water supply, and other items. Here as in the National Parks and Reserves case, it is a question of whether or not users are likely to enter a region and make no use of facilities provided. While it is possible to do this in some situations, in practice many outdoor recreationists will make at least slight use of some facilities provided by landowners or leaseholders. It seems

uncontentious that people who benefit from these facilities could also be asked to contribute towards the costs of these facilities.

More contentious is the idea that a charge be made solely for entry to these lands. Acceptance of this idea requires acceptance that landowners and leaseholders alienate recreation space to themselves Pigram (1985). Leaseholders of pastoral land in the South Island primarily hold rights to the grazing on those lands. They do not hold rights to recreation, or the landscape, or other aesthetic or public good features associated with those lands. It seems that the general public do have an interest in those lands, alongside the interest held by leaseholders, and leaseholders should not be able to charge recreationists for entry for recreation purposes.

3. What outcomes arise at present in New Zealand?

Costs associated with access to natural areas for recreation are almost always borne solely by the people involved. At present New Zealand has no charges for entry to National Parks and Reserves, but there are growing instances of charges for entry onto other natural areas, particularly onto freehold land. There are charges for use of some services and facilities provided in National Parks and Reserves, just as there are for some services and facilities on leasehold and freehold land.

The use of natural areas in New Zealand, as in most countries, is dominated by high education and middle to high income level people Aukerman (1986), Kerr et al (1986), Clough and Meister (1989). Among the users there are a significant proportion who are young, with low current but high expected earnings, and who typically come from families with relatively high incomes. The presence of these people - generally students - ensures that there is often a bimodal income distribution amongst users of natural areas Vaux (1975).

Juxtaposition of the two major ideas from the paragraphs above - use dominated by middle to high income people, and zero or patchy use of charges for use of these areas, leads to a conclusion that the general absence of charges or low charges for use of National Parks and Reserves and associated facilities, is not equitable. Users, who are typically middle to high income people or who come from middle to high income families, appear to be being subsidised by non-National Park-user taxpayers. The argument that equity is achieved by having zero charge for entry to these areas does not appear to be sustainable when equity is assessed by application of the benefit principle. Introduction of charges for entry to National Parks and Reserves appears to be justifiable on equity grounds, as are charges for use of services and facilities at these areas.

The absence of charges for entry and for use of facilities in these areas is likely to have very predictable effects. Crowding is likely to occur at peak times and facilities are likely to be underprovided to meet these peak demands. The low-price signals to potential users will result in relatively more people visiting these areas than would occur if there were charges which reflected the costs of providing National Parks and Reserves and the services at those sites. Alternative outdoor recreation sites by comparison will appear relatively more expensive if they do not receive the same level of taxpayer subsidisation of their costs. The magnitude of these effects should not be exaggerated however, because as argued above it is likely that the most important determinants of use of these areas are the travel and time costs required to reach them, and not the zero or low charges for entry and use of National Parks and Reserves.

4. What are the likely outcomes if charges are introduced ?

The argument thus far is that there is a case for introduction of entry charges and facility charges on New Zealand National Parks and Reserves. We have little New Zealand evidence available to us to indicate what the outcomes will be if this occurs. Kerr and Manfredi (1991) report on the attitudes and possible responses of recreationists to proposed charges for services in Arthurs Pass National Park and Tararua Forest Park.

There are fragments of evidence from overseas which suggests introduction of charges for recreation areas can result in the distribution of income among users being more representative of the income distribution of the general population than previously occurred Manning and Baker (1981). There is some evidence that the payment of charges results in greater self esteem amongst users, including the payment of charges by disadvantaged groups Aukerman (1986)

But to seriously tackle the problem of unrepresentative income distribution amongst users, action needs to be focused on the high costs involved in reaching natural areas as this is a major barrier deterring low income people from reaching natural areas. A long running trial could be conducted to see if reduction in the travel cost barrier does result in an increased participation rate by lower income people in recreation on natural areas.

5. Which prices and how collected?

This essay has argued there is a case for introduction of charges for entry and use of New Zealand National Parks and Reserves. Two pertinent questions can always be

asked when use of charges is advocated - how will the level of the charges be determined, and how will these charges be collected? Some very brief comments on these two questions are offered.

In many circumstances economists argue that marginal costs should guide the establishment of prices to ensure that allocative efficiency is attained. In situations where there are falling long run marginal costs, deviations from marginal cost pricing are justified. Uncongested National Parks and Reserves may be cases where marginal costs fall with increases in use, but as numbers of visitors to New Zealand National Parks and Reserves grow, congestion and its attendant costs will increase, and marginal costs will increase. In these situations marginal costs may provide a useful guide for the charges to levy users. Overseas studies could be examined to determine the lessons learned on pricing outdoor recreation Crompton 1981, Sandrey et al 1983, Stevens et al 1989.

Collection of charges for use of natural areas is sometimes noted to be difficult to accomplish because of the number of potential entry points to these areas. Trial will establish whether this concern is justified, but in several of New Zealand's National Parks topography will push very many visitors toward one or a handful of entry points to those Parks. Revenue collection is likely to be generally feasible if not perfect. North American studies indicate that the feasibility of collecting charges at the entrances to National Parks and other natural areas is generally high Aukerman (1986).

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