Tourism in Wilderness: M&M Toolkit

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Abstract—Recreational use of wilderness is increasing rapidly. Many strategies have been proposed to control visitors and impacts. They can all be viewed as parts of a monitoring and management toolkit. Different tools work better for different tasks. The tools do not define the tasks. Monitoring tells what tasks need to be done, how urgent and serious they are, and when they are completed. It is also needed to test how well each tool works for different tasks.

Recreational pressure on conservation reserves is continuing to grow. Worldwide, increasing numbers of private individuals and commercial tours are visiting National Parks, World Heritage areas, conservation reserves, public lands, wilderness areas, and fragile environments. This increases both actual and potential environmental impacts, and the management effort and investment required to control impacts and maintain the primary conservation function of the areas concerned (Lindberg and McKercher 1997).

Management Tools ___

Land managers in different jurisdictions have traditionally used different approaches to managing tourism and recreation. Broadly, the main options are either to harden the natural environment against visitor impacts or to influence visitor numbers and behavior so that impacts in different areas are kept within limits (Buckley 1994; Buckley and Pannell 1990; Cole and others 1987; Harroun and Boo 1996).

Hardening typically involves construction of tracks and boardwalks, campsites and fireplaces, and toilet facilities. Visitor management may involve regulations, educational programs, fees, and charges.

Regulations can include constraints on numbers of visitors permitted or forbidden in different areas at different times of the year, the activities they are permitted or forbidden to undertake, and the equipment they are permitted or forbidden to use.

The most widely used regulatory technique is zoning, where different areas are set aside for different activities or sets or activities. Seasonal closures, such as those associated with hunting and fishing licenses and use of open fires, are also common. Limits on visitor numbers, such as setting a fixed total quota for overnight camping with an associated permit allocation system, are widespread in heavily used

National Parks and other wilderness areas in many countries. Other common types of regulation include bans or restrictions on motorized vehicles and watercraft, pack animals and pets, and fires and firearms. Prescriptions of maximum party size provide another example.

Education programs may include interpretive centres, track-side signs, and guided activities. Education and regulation may be linked (for example, educational leaflets or videos followed by a test that must be passed to obtain a permit for access or for a particular activity).

Fees and charges such as entrance fees, overnight camping fees, and commercial permit fees are now levied by many parks and other protected areas, both public and private. Most of these appear to be designed to raise revenue rather than influence visitor behavior. Most charges levied directly on individual visitors are relatively low. Some indirect charges, however, levied through licence and franchise fees paid by commercial tour operators, are substantial.

Management Frameworks _

Historically, different approaches to managing tourism in conservation reserves have been emphasized at different times, in different conceptual frameworks. Examples include carrying capacity, recreational opportunity spectra, limits of acceptable change, and visitor impact management planning (reviews, Lindberg and McKercher 1997; Lindberg and others 1997).

There is little to be gained from arguing the merits of one approach or another. It seems more useful to recognize that they can all be considered as different aspects of a single all-encompassing strategy, which for convenience I have referred to as monitoring and management, or the M&M Toolkit.

Toolkit Approach _____

The essential aspects of the M&M Toolkit are as follows. First, it's a toolkit. No tool is innately superior to any other; you pick the tool that fits the task. For some tasks, any one of a number of tools could suffice. Other tasks need several tools used together. Sometimes it is obvious which tool will be best; sometimes it takes skill and experience to select the right tools in the right sequence. The size of the tool, as well as the type, must match the size of the task. You don't need a sledgehammer to crack a nut; but you can't kill a wild pig with a popgun.

Second, the toolkit does not define the tasks. The methods available, and their effectiveness and costs, may limit what goals are achievable; but they do not determine how to choose between the achievable goals.

Third, you must be able to tell when a task needs to be done, how urgent it is, and how serious it is. This is not

In: Watson, Alan E.; Aplet, Greg H.; Hendee, John C., comps. 1998. Personal, societal, and ecological values of wilderness: Sixth World Wilderness Congress proceedings on research, management, and allocation, volume I; 1997 October; Bangalore, India. Proc. RMRS-P-4. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

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always straightforward. If major environmental impacts have already occurred at a particular site, it will generally be obvious that remedial work and rehabilitation will be required, and measures will need to be taken to prevent the impact from recurring. Both these steps are likely to be expensive; and it may still prove impossible to rehabilitate the area fully. If the impact could have been predicted or detected at an earlier stage, and certainly before it reached any threshold of irreversible change, it could have been overcome or avoided much more cheaply and easily. As with any toolkit, preventive maintenance generally needs less effort and smaller tools than major repairs. While some impacts are detectable by the naked eye of the park ranger well before they are likely to affect critical ecosystem functions, others are not and, in fact, can only be detected with relatively sophisticated scientific equipment and statistical analysis. Therefore, the monitoring component in the M&M Toolkit is critically important.

Fourth, in order to use any particular tool one must know what it is for and how well it works in different potential applications. Before it can become part of the routine toolkit, any tool must first have been tested in different situations. Sometimes this leads to the invention of new tools or improvements to old ones. Again, in the context of managing tourists in wilderness areas, this is not always straightforward. Ideally, it requires quantitative measurements of the impacts of different numbers of tourists, engaged in various different activities, on various different environmental parameters, in various different ecosystems, when different visitor management tools are in operation.

Once the toolkit analogy is made, all of the above is self-evident, especially with the benefit of hindsight over several decades of park and wilderness management. It is still a useful conceptual approach, however, for several reasons. First, it emphasizes that many different approaches may each have a place in appropriate circumstances. Second, it emphasizes that the sustainable use of wilderness areas for tourism and recreation requires the management of people within the natural environment. And third, it emphasizes that management needs monitoring: of the state of the environment; changes caused by tourists; and changes to those changes, as a result of management.

Conceptually, many parks and wilderness managers have long since embraced all these philosophies. Monitoring, however, is generally at the eyeball level, so management action is not taken until impacts are clearly apparent to the naked eye. At this point, there are typically few options available, especially because it is politically much more difficult to reduce visitor numbers or activities than it is to limit them before numbers increase or activities commence. The most common response of park managers is, therefore, to harden the environment against ever-increasing numbers of tourists. This in turn consumes an ever-increasing portion of management budgets, and this in turn forces managers to levy increasing visitor fees to cover the cost of infrastructure (Driml and Common 1995; Eagles 1995).

To break this vicious cycle, managers need to devote more of their budgets to monitoring the state of the environment, and testing the effectiveness of management tools, before impacts become irreversible.

The establishment of monitoring programs, and selection and application of management tools, are choices which can only be made by land managers. Research groups can assist, however, by compiling and analyzing data from past impact measurements, improving the design of monitoring protocols, establishing the relative effectiveness of different environmental parameters as general indicators of ecosystem health or impact, and testing the effectiveness of management tools.

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