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# Demand and Response: The Case of Snowmobiling in Minnesota

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Cover photograph courtesy of Minnesota Department of Natural Resources.

# Demand and Response: The Case of Snowmobiling in Minnesota

T.B. Knopp and W. Wieland

**Abstract**—The recent development of snowmobiling provides an opportunity to examine government response to sudden, unprecedented demands. This analysis reveals overwhelming pressures on the state to take the role of advocate for this form of recreation, largely as a result of dependence of the bureaucratic structure on funding derived directly from snowmobile-related revenues. A fundamental question which results is how funding sources should influence the allocation of public lands to competing uses.

We suggest here an ideal approach which would classify any new demand so that an initial response was automatic. Time would then be provided for a more deliberate, planned decision preceding a major commitment of resources. Flexibility should also be built into the decision-making process so that resources can be reallocated with changes in demand.

## Introduction

Governments are often called upon to respond to sudden, unprecedented demands. In the case of recreational land use, appropriate response is especially difficult when unforeseen forms of recreation experience a rapid growth in popularity, and when these forms are highly consumptive of space and resources. The recent appearance and development of snowmobiling provides a unique opportunity to observe and analyze this phenomenon.

Snowmobiling, an activity practically unheard of before 1965, reached a peak in popularity in 1972; interest has since leveled off or shown a slight decline. Much of this attention was centered in Minnesota; the state not only provided ideal terrain and climate for snowmobiling, it also became the home of a large segment of the snowmobile manufacturing industry.

Throughout this brief history, numerous pressures have caused government agencies and elected officials to respond in a variety of complex ways. Snowmobiling and the government's response to it have been highly publicized; however, there has been little effort to systematically document and critique the decision-making process.

The purpose of this report is to take a careful look at how the state of Minnesota—particularly the legislature and the public land administering agencies—responded to the demands of snowmobiling. We will attempt to answer a number of questions: Can the response be

described quantitatively? Was the response fair with respect to other forms of land use competing for the same resources? What were the pressures upon politicians and administrators to respond in one way or another? With the benefit of hindsight, can we suggest alternative patterns of response? This exercise may help us to respond in more effective ways to similar demands in the future.

The characteristics of the activity are an important factor in evaluating the government's response. For our purposes it is sufficient to note that snowmobiling belongs to a class of outdoor recreation requiring motorized transport, effectively multiplying the capacity of an individual to consume space; in addition, snowmobiling is a winter activity and thus occurs at a time of the year when fewer outdoor recreation activities are practiced.

We will begin with the assumption that snowmobiling is a legitimate form of recreation and should be accommodated on public lands. Our analysis will focus largely on the degree of accommodation.

## The Demand: Quantifying Resource Needs

The primary purpose of this section is to identify the signals and pressures felt by politicians and administrators during the early stages of the growth of snowmobiling. It will make it easier to judge the appropriateness of the response.

First, we can ask the question: Why was there any demand at all? Any new plaything has some novelty value; however, the popularity of snowmobiling far exceeded the limits of this explanation. It is well to recall the situation that existed during the mid- to late-sixties. Minnesotans perceived few positive attributes of the long, harsh, confining winter season. It was something to be endured. Television helped to pass the time, but a relatively small proportion of the population felt up to

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rigors of engaging in the limited forms of outdoor recreation available.

Downhill skiing was costly, considered primarily a youth sport, and limited by midwestern terrain. Ice skating again was thought to be mostly for the young, and was confined to ponds, rinks, and the like. Ice fishing probably appealed to a very limited number of folks with pronounced stoic capacities. Ski touring, or cross-country skiing, had little visibility at this time.

Meanwhile, Minnesotans suffered severe cases of cabin fever, while just beyond their reach lay a vast resource of unspoiled, uncrowded, wide-open winter landscapes—the perfect antidote for winter confinement.

The snowmobile provided sudden access to this resource for everyone, the young and old, the thin and fat. Society was affluent and gasoline cheap—there was little reason for restraint. Why not try it? Madison Avenue could be counted on to do its part; television and billboards loudly proclaimed the solution to winter doldrums.

It is easy, then, to understand why snowmobiling entered the picture; now we must attempt to describe what actually happened. Demand for a type of recreation can be expressed in a number of ways: sales of equipment, registrations or licenses, number of participants, actual use of areas and equipment, organizations and their activities, and political pressures. All of these are merely indicators, however, and remain subject to interpretation.

## Production and Sales

The cost of a snowmobile and accompanying expenses are a somewhat distorted picture of demand. The purchaser gets far more than a machine—he or she is buying access to vast areas of public and private lands, the freedom to go anywhere there is snow. With this in mind, we can look at production and sales figures primarily as rough indicators of trends.

In Minnesota, Polaris Industries began small scale production in 1954; it wasn't until the mid-sixties, though, that the snowmobile boom really took off. At that time Polaris was joined by Scorpion and Arctic Enterprises. In 1965 Minnesota manufacturers produced 3,900 machines out of a total of 20,000 in North America (1). These three firms accounted for the bulk of production, although by 1969 there were 15 other snowmobile manufacturers in Minnesota. A November 1969 issue of *Sno Goer* magazine contained ads for 35 different makes of snowmobiles. In 1979, Minnesota firms accounted for 43 percent of the machines manufactured. Peak production in Minnesota was reached during the 1972-1973 season with 173,000 units (2).

From the 1972-1973 season on production fell steadily and a number of firms dropped out of the picture. In 1980 only two firms, Polaris and Arctic Enterprises, remained in Minnesota. These two also suffered severe losses during the following two seasons. Lack of snow, high interest rates, and a generally slow economy were all blamed when they too announced that they would be filing for bankruptcy or looking for buyers. During the

peak years nearly 4,000 persons were employed directly in the production of snowmobiles in Minnesota; now the future of the industry is uncertain (3).

The sale of snowmobiles is much more difficult to document than production. We can assume a rough parallel between the two; however, overly optimistic projections have resulted in large stockpiles of machines. The mid-seventies saw a lot of producers going out of business as sales fell and inventories accumulated. The snowless winters of 1979-1980 and 1980-81 witnessed a further decline. A "mini-boom" of sales occurred in the record snowfall year of 1981-82; it remains to be seen what effect this will have on long term trends.

Snowfall is not the only factor affecting snowmobile sales. The mid-seventies slump was attributed to the energy "scare." High interest rates and a general slump in the economy are definite factors in the early eighties.

Two other factors, although seldom mentioned, may have significant effects as well. First, the novelty of snowmobiling may be wearing thin; the direct benefits have rather limited variations, since skills are learned quickly and there are few payoffs for increased proficiency.

Second, throughout the decade of the seventies an alternative to snowmobiling became increasingly visible. Ski touring or cross-country skiing provides many of the same benefits as does snowmobiling, at far less cost. In addition, it is consistent with the "fitness" trend and suffers less from the negative stigma associated with snowmobiling.

## Other Economic Indicators

The price of a machine accounts for only a part of the total cost of snowmobiling. Fuel, maintenance, and accessories are unavoidable complements. Transportation, food, and lodging are also major considerations, especially for those who must transport their snowmobiles from cities to the forest and trails.

A study conducted by the Upper Great Lakes Regional Commission came up with the following total expenditures for Minnesota in 1970-1971 (4):

New machines	\$49,200,000
Equipment and clothing	4,360,000
Repair and maintenance	2,359,000
Operating costs	6,066,000
Lodging and food	4,308,000
Trip related car expenses	6,169,000
TOTAL	\$72,462,000

Similar estimates increased to over \$160,000,000 for the 1973-1974 season (5).

It is particularly important to note estimates of the amount of gasoline used in snowmobiles, since gasoline consumption was the major justification for legislative funding based on unrefunded, non-highway use, gas taxes. In 1971-1972 the Department of Economic Development gave a figure of \$6.5 million worth of gas and oil (6); the International Snowmobile Industry Association (ISIA) estimated \$17 million for the same year (7). Estimates tended to vary with survey methods and prevailing attitudes toward energy conservation.

One of the most significant economic impacts of snowmobiling was the revitalization of winter tourism. According to *Sno Goer* magazine, more than 140 resorts in the Arrowhead region were open to snowmobilers in 1972 (8). Races and similar events attracted people to cities and small communities throughout Minnesota.

Even more significant in the context of our analysis is the direct contribution of snowmobiling to the operation of state government. Again, using 1971-1972 as a base, the following revenues were cited by the Department of Economic Development (9):

Registration fees	\$ 960,000
Sales tax on machines, etc.	3,840,000
Sales tax on motor oil	84,500
Gas tax (@ \$.07/gallon)	962,927
Dealer license fees	119,775

Although the state has some control over income from registration fees, revenues fluctuate considerably with sales and the rate of snowmobiling activity. Income from unrefunded gasoline taxes is based on rather crude estimates of consumption, which may be exaggerated by extrapolating from surveys with higher return rates from the more active participants. Snowmobilers were quick to recognize the leverage these monies could supply to the policies of the legislature and the land management agencies.

Machine sales may never return to the "golden age" of the early seventies; however, a large number of devoted snowmobilers can be expected to continue to invest in their sport. Snowmobiling should contribute to Minnesota's economy far into the future.

### Snowmobile Registrations

Although a machine could be registered in 1968, the law requiring registration did not take effect until June 30, 1969. Initially a fee of \$8 was levied for a three year period; shortly thereafter it was raised to \$12. Only those 18 years of age or older could register a snowmobile. Owners were required to notify the Department of Natural Resources (DNR) within 15 days of a transfer of ownership or abandonment.

Registrations provide a fair indicator of the status of snowmobiling in Minnesota from 1969 to the present. Table 1 summarizes data obtained from the DNR's licensing bureau.

A number of explanations are necessary in order to interpret the table. First, active registrations were determined at the end of each fiscal year (June 30) by deleting those machines whose registrations were due, but had not been renewed. New registrations include both new machines and old machines that had been transferred to a different owner or were reregistered after having been deleted some previous year. The three-year registration period is less sensitive to fluctuations than would be an annual licensing requirement.

It is difficult to infer any consistent connection between registrations and participation in snowmobiling. A number of factors tend to modify this relationship over time. Many snowmobilers are under 18 years of age. Unregistered snowmobiles may account for a varying

**Table 1. Snowmobile Registrations, State of Minnesota, 1969 through 1981.<sup>a</sup>**

Year	New Registrations <sup>b</sup>	Active Registrations <sup>c</sup>
1968	32,666	—
1969	26,676	—
1970	55,485	123,549
1971	65,433	178,429
1972	97,559	249,568
1973	52,529	270,374
1974	47,196	275,778
1975	43,310	287,559
1976	37,215	292,488
1977	24,043	277,562
1978	30,508	267,576
1979	32,682	262,920
1980	22,946	269,669
1981	19,459	227,001

<sup>a</sup>All figures provided by or derived from Minnesota Department of Natural Resources License Center's ledger of registration totals.

<sup>b</sup>New registrations include both new machines as well as renewal of older machines that had not been registered the previous year.

<sup>c</sup>Includes new registrations, renewals, and carryover from registrations in preceding two years. A Minnesota snowmobile registration is valid for a period of three years.

proportion of the population. Multiple registrations (i.e., more than one snowmobile registered to an individual) have varied over the years. It seems logical to assume that a family might begin with a single snowmobile and later acquire others so that each member would have one. Serious snowmobilers and racers also tend to accumulate multiple registrations. Thus, over time, an increase in registrations may or may not indicate an increase in actual snowmobiling or numbers of snowmobilers.

### Survey Data

Several surveys were conducted to characterize snowmobilers, their participation patterns, and their preferences for areas and facilities. Most of the early surveys were based on samples drawn from snowmobile registrations. In 1978 a random sample of Minnesota households was polled in order to identify snowmobilers who were then asked to complete a mail questionnaire. This last, most recent survey, provides a reasonable estimate of the number of snowmobilers.

Defining a participant is always a problem. In this case a telephone interviewer asked the following question: "Did any members of your household go snowmobiling or are planning to go cross-country skiing, or snowshoeing during this past season?" An affirmative answer was followed with the question: "Would you give me their first name(s), and whether they are snowmobilers, cross-country skiers or snowshoers?" (10).

The sample responses were extrapolated to arrive at an estimate of 921,000 snowmobilers in Minnesota (11). "Participant" in this case includes hard-core snowmobilers as well as those who only went for a ride once during the season. Previous estimates assuming a multiple of snowmobilers per registered snowmobile had arrived at somewhat larger numbers.

Follow-up questionnaires on actual use patterns provided a more quantitative measure of participation. A

survey conducted in 1970 came up with a total of 20,600,034 hours of operation for the 1969-1970 season (12). A 1974 survey showed 8,738,000 "user days" of snowmobiling in Minnesota (13). The 1978 State Comprehensive Outdoor Recreation Plan (SCORP) survey reported 11,253,705 snowmobiling "occasions" for that season (14). Since these figures were arrived at using different measurements, it is difficult to derive meaningful trends. In addition, low return rates may tend to exaggerate use since those who are more involved in the sport are more likely to return the questionnaire.

Where snowmobiling occurs is probably as important as *how much*. A region by region analysis shows that most (74.7 to 98.2 percent) snowmobiling is done in the region of the snowmobiler's residence. The lower figure represents the Twin Cities metropolitan area and is easily explained by the relative lack of opportunities (15).

The types of trails and areas utilized are also important. The 1974 survey revealed that much of the snowmobiling (4,669,000 user days) occurred on the snowmobiler's own property. Fewer than 1,900,000 days were spent on state or federal recreation lands. A majority of snowmobiling was done on private lands or on road right-of-ways (16).

An increasing percentage of snowmobiling activity is occurring on the grants-in-aid trail system, which depends on both public lands and agreements with private landowners. Aside from these trails, roughly the same opportunities exist today as did in the early seventies.

Another consideration is *who* snowmobiles. The snowmobiler has often been characterized as predominantly "blue collar," having higher than average income, and apt not to have extensive post-high school education (17). In Minnesota more than 70 percent of snowmobile registrations were outside the Twin Cities metropolitan area in 1978 (18). This proportion seems to be increasing even though approximately half of Minnesota's population resides in the metro area. The importance of this rural orientation becomes evident when we consider political geography and the symbolic nature of recreational choice.

The image and character of snowmobiling has undergone modification. It is no longer the pioneering sport it once was. Now snowmobilers can enjoy thousands of miles of well marked, carefully groomed trails. Luxurious overnight accommodations and gourmet dining have also become typical complements.

## Organizations

Numbers tell only a part of the story. Effective political pressure is often the product of an efficient, well-coordinated organizational structure. Snowmobilers had several reasons to band together. The simple pleasure of communicating with kindred spirits and sharing their enjoyment of the sport is one justification. Also, as a group they could accomplish far more in the way of structured events and the development of trails and facilities. But perhaps the strongest bond was created by the external threat of criticism and restrictive laws and regulations.

The snowmobile industry was and is a strong supporter of these organizational efforts. Since 1973 the

Minnesota Department of Natural Resources (DNR) also has provided strong incentives to organize by offering trail development grants that were administered through the local clubs.

In 1970 200 local clubs in the three-state region of Minnesota, Wisconsin and Michigan were identified (19). In 1974 the Minnesota Snowmobiling Economic and Preference Survey found that 22 percent of Minnesota snowmobilers belonged to a snowmobile club or a sporting club involved in snowmobiling (20). In 1980 a state organization, the Minnesota United Snowmobile Association (MUSA), claimed more than 130 affiliated clubs and had another 200 on their mailing list (21).

The first statewide organization, the Minnesota Association of Snowmobilers (MAS), was formed in 1970. The executive director took a definite political/ideological stance; in the first issue of the association's publication, *Sno-Land Snowmobiler*, he announced: "M.A.S. and *Sno-Land* shall not pugnaciously intimidate anyone but reserve the right to expose fallacies and emphatically defend our existence. . . . Our publication is literally of the people, by the people, and for the people. We all share the same insatiable appetite for life, hope, justice and comradery that burns in the 'guts' of every legitimate snowmobiler in the country." (22). On another occasion, in response to media criticism, he wrote: "Another important fact is that while we struggle to obtain our machines we do not have time to join gangs, S.D.S., Black Panthers or any other subversive ingrates. We are too busy to attend 'I am Curious (no matter what color),' burn draft cards, riot or help Castro in his attempt to destroy us." (23). Although extreme, his remarks did reflect a common perception snowmobilers held of themselves: they were hard working, family people, and "good Americans."

In 1976 the Snowmobile Association of Minnesota (SAM) was formed, partly in response to dissatisfaction with the way MAS was representing the snowmobiling community. These groups were merged into the MUSA in 1978. MUSA is a more mature, less strident voice that reflects experience and a more realistic view of the place of snowmobiling in society.

Perhaps the most effective organization in the political arena has been the International Snowmobile Industry Association (ISIA), headquartered first in Minnesota and later in Washington, D.C. In 1979 this large, complex organization consisted of paid staff, executive officers, a board of directors representing the various manufacturers, and several committees, including engineering and technical affairs, public affairs, communications, and government relations. ISIA provided support for several other groups, including the International Snowmobile Council, the International Snowmobile Tourism Council, and the International Association of Snowmobile Administrators, which otherwise may not have existed.

It is quite clear from its actions and policy statements that a major function of ISIA is to influence land use decisions and laws and regulations affecting the use of snowmobiles. Activities have included lobbying, producing publications, and testifying before legislative groups. Perhaps their most effective strategy has been to support state and local groups working directly with

landowners and land management agencies.

The scope of ISIA activities depends, of course, on the vitality of the manufacturing industry; current contractions will probably act to reduce ISIA's resources. Recently, the organization has intensified efforts to solicit the support of other recreation oriented groups in an attempt to maintain their influence.

## The Response: Accommodating Demands on Resources

The initial development of snowmobiling in Minnesota is somewhat analogous to the "big bang" theory of the origin of the universe; it appeared suddenly and expanded rapidly to fill the vacuum created by a lack of laws and regulations. Patterns of use and attitude were established that persist to this day. Whether the universe of snowmobiling is still expanding or has begun to contract is a matter of conjecture among scholars of economics and recreational phenomena.

The first government "response" to snowmobiling was no response. The industry, quite rationally, took advantage of the situation and encouraged potential buyers to believe that along with a machine they were purchasing the right to go anywhere there was snow.

By the late sixties it became clear that something had to be done to bring about an orderly, reasonable growth in the sport of snowmobiling. Politicians, agency personnel, the public, the snowmobile industry, and most snowmobilers shared in this feeling. Naturally, however, the latter two groups did not want to see "undue" restrictions placed on the activity.

From the beginning it was apparent that state government was the logical source of laws and regulations affecting snowmobiling. In the first place, snowmobiling was a state-wide phenomenon that showed little regard for lesser boundaries. Snowmobilers were likely to travel from their homes to far corners of the state seeking attractive trails and areas, a single ride might take them across several administrative boundaries.

Although local rules and ordinances were introduced early, they soon met with complaints from those who felt too many different rule makers made too much confusion. The state was the only level of government with sufficient authority to write uniform standards and establish a uniform system of licensing and collecting of fees.

In addition, the state administered most of the public land in Minnesota. Indeed, the DNR administers more public land than any other government agency in the U.S. apart from the federal government and the state of Alaska.

This combination of control over public land and taxing authority was to play a telling role in the development of snowmobile policy by the DNR.

Other levels of government also made significant responses to snowmobiling. The municipalities of the seven-county Metro region played a part, as did the federal government, which administers more than three million acres in the state. Our discussion will focus primarily on state government—both the legislative and

the executive branches. Local and federal agencies will be introduced where appropriate.

## Laws and Regulations

It is difficult to separate legislative mandates from their subsequent interpretation and the promulgation of rules and regulations by the DNR. The legislature and the DNR interacted in the other direction, as well; the DNR staff often played an important role in the formulation and introduction of, and solicitation of support for legislation.

The first Minnesota statute dealing directly with snowmobiles was passed by the legislature in 1967. It generated very little controversy and was considered by many to be a model snowmobile law. Snowmobiling proponents had a strong hand in shaping the law. The major provisions of this legislation were (24):

- Section 1— excluded snowmobiles from the definition of a motor vehicle
- Section 2— exempted snowmobiles from highway use tax
- Section 3— defined terms in the law
- Section 4— outlined registration requirements; a three year license cost eight dollars
- Section 5— appropriated \$150,000 for the biennium for promotion and development
- Section 6— dealt with transfer of ownership
- Section 7— prohibited local licensing and registration
- Section 8— mandated that "with a view of achieving maximum use of snowmobiles" the Commissioner of Conservation was to adopt rules and regulations
- Section 9— prohibited operation on roadways, shoulders or inside bank of any trunk, county or state aid highway. Nor would snowmobiles be allowed to operate within the right-of-way between one-half hour after sunset and one-half hour before sunrise.

Some of the effects of this legislation are not obvious. Because snowmobiles were not defined as motor vehicles they could legally operate off the roadways in State Parks and were not subject to entrance fees charged to automobiles and similar vehicles. The exemption from payment of the state gas tax created a source of funds for the DNR's snowmobile program. And the Commissioner, who at the time was an avid snowmobiler, was given broad discretionary powers and required to encourage the use of snowmobiles.

The subsequent rules and regulations formulated by the Department of Conservation (later the DNR) took effect in August 1967 (25). Snowmobiling was allowed on nearly all state lands except that it was confined to designated trails in State Parks, and written permission was required from an agent of the Department to enter Wildlife Management Areas. Especially significant was the fact that snowmobiling was allowed, with very few restrictions, on nearly five million acres of State Forest lands.

In 1969 four additional laws pertaining to snowmobiles were passed. The first prohibited the use of snowmobiles to drive, harass or otherwise take unprotected wild animals (26). The second provided for the confiscation of any snowmobile used in committing a burglary (27).

The third had several provisions which modified the 1967 law (28). The Commissioner's authority was extended to include approximately 3½ million acres of public waters. He was also empowered to standardize trail signs and implement a safety and information program. Sections 7 and 8 repealed parts of the 1967 legislation dealing with snowmobiling along roads and highways. Operation was no longer restricted to daylight hours, and county boards could allow snowmobiles on roadways and shoulders and the inside banks or slopes.

A fourth piece of legislation allowed unregistered snowmobiles from another state or country to operate in the state for a period of thirty days (29).

Regulatory measures took effect that same year modifying the policy regarding wildlife management areas; snowmobiling would be allowed in State Wildlife Management Areas lying north and east of U.S. Highways 2, 71 and 10, and State Highway 210 (approximately ⅓ of the state) (30). Another regulation limited local authority over snowmobiling on public waters (31). In summary, most of the changes taking place in 1969 tended to liberalize the use of snowmobiles on public lands and waters.

Few changes took place in 1970. Regulations pertaining to snowmobiling in state parks were modified to permit a manager to close trails if snow cover was considered inadequate. Hours of operation were extended from 10 to 11 p.m. (32).

By 1971 opposition to snowmobiling was beginning to get organized and make itself heard. One result was a modification of the earlier statute to read: "...with a view of achieving maximum use of snowmobiles *consistent with protection of the environment*, the Commissioner of Natural Resources shall adopt rules and regulations. . . ." (33). The addition of the italicized phrase may have pleased some environmentalists; it required little in the way of specific action or restraint.

Few changes in the law took place until 1978 when new regulations were required to deal with new land use designations—Scientific and Natural Areas, State Wilderness Areas, Wild and Scenic Rivers, and State Recreation Trails. Snowmobiling was not allowed in the first two designations (34); however, Scientific and Natural Areas comprise very little of the public lands and no State Wilderness Areas have been designated to date. In the case of Trails and Rivers, snowmobiling was allowed as the only exception to a general ban on motorized use (35).

Most of the preceding laws and regulations deal with the use of snowmobiles on public lands. Snowmobiling on private lands was also a concern of snowmobilers and state lawmakers; trespass legislation soon provided a response to growing complaints from land owners. In 1974 the state trespass law was amended to require prior written or oral permission to operate a snowmobile on private land within the seven county metropolitan area. Outside of this region snowmobiles could enter private land unless it was posted or they were asked to leave by

the owner (36). In 1978 the trespass law was further modified to prohibit entering agricultural land without permission (37). Although the changes tended to restrict somewhat the freedom snowmobilers enjoyed during an earlier era, there is little doubt it would have been far more restricted without strong lobbying efforts from snowmobilers and the DNR.

## Funding for Snowmobiling

Perhaps even more important than regulatory legislation were the laws pertaining to appropriations. Funding permitted an aggressive program of trail development and supported a large trail staff within the DNR.

From the original appropriation of \$150,000 funding grew rapidly. A major stride was made in 1973 with the passage of the Unrefunded Snowmobile Gas Tax Law (38). This law provided funding based on an estimate that three-eighths of one percent of all gas tax revenues collected by the state were derived from gasoline purchased to operate snowmobiles. In 1975 the proportion was increased to three-fourths of one percent. Although the validity of these estimates is suspect, there is little question that the revenue was significant and that the majority of the legislature agreed to the need for trail funding.

The 1973 law stipulated that these appropriations could be spent in one of three ways:

- a) \$209,000 for grants-in-aid to local units of government for enforcement of snowmobile laws and the construction of snowmobile trails.
- b) \$627,000 was to be allocated by the DNR for the provision and maintenance of snowmobile trails and trails to be used exclusively for non-motorized uses.
- c) \$209,000 was to be allocated by the DNR for the provision of trail access and snowmobile "areas" where trails *per se* were not feasible.

The provision for non-motorized trails was included to attract the support of legislators who were less enthusiastic about snowmobiling. In this regard the law had little teeth; the DNR was not actually required to spend any funds on non-snowmobile trails.

A summary of the actual appropriations and expenditures during the period 1968 through 1981 is shown in Table 2 (39). It is readily apparent that relatively little was spent for non-snowmobiling facilities. Also, it is interesting to note that bicycling received much more funding than did cross-country skiing although the latter is more competitive for land with snowmobiling.

## DNR Involvement

The DNR did not simply fulfill the requirements of the laws; it also was involved in writing legislation. In addition, it is clear that the various statutes allowed a great deal of latitude, and in fact, encouraged initiative on the part of the agency.

The DNR was in a unique position: it became the recipient of snowmobile development funds, while at the same time it managed vast areas of public lands. The agency was able to make a quick response to perceived demand.

The first action on the part of the DNR immediately followed the 1967 legislation and did much to set the tone and establish precedents for snowmobiling on public lands. Here's how it was described by a DNR spokesman at a 1971 research symposium (40):

The Commissioner of our Department of Conservation (now the Department of Natural Resources), was an avid snowmobiler himself, and personally directed foresters and park managers to immediately mark all existing trails capable of snowmobile use and begin a limited trail construction program.

Nearly 2,000 miles of "instant" snowmobile trails resulted from this decree. Snowmobiles were encouraged to use several hundred miles of abandoned logging roads as well as the posted trails. The number of marked trail miles on state forest lands has remained relatively constant; most of the subsequent trail development has occurred in other areas.

The grants-in-aid program initiated in 1973 made funds available to local units of government which then acted as sponsors for snowmobile clubs interested in building and maintaining trails. This program became the most productive and the most responsive part of the DNR's trail development. Snowmobile organizations could initiate trail proposals where they felt they were most needed. In turn, they were expected to contribute 35 percent of the cost, either in dollars or in labor. This portion of the trail system increased from 500 miles in 1973 to 6,300 miles in 1979.

A third type of trail development administered by the DNR was the State Corridor Trail System, a proposed network of major, "multiple-use" trails linking all parts of the state. Actual creation of the trails has been a slow, difficult process because of high costs and resistance from adjacent land owners. As of 1980 approximately 400 miles of an authorized 1,200 plus miles were officially open. Snowmobiling is the dominant use on most of the trails; less effort has been made to accommodate other uses, except on relatively short isolated segments.

An ambitious trail development program of this type

obviously required a large, dedicated DNR trail staff. Up until the late sixties, statewide trail development was largely the responsibility of two people. In 1974 the staff consisted of three fulltime and five semi-permanent employees. The following year two additional fulltime persons were added and the five semi-permanent employees were made permanent.

In 1977 six of the staff were transferred to a newly created trail planning staff. By 1980 there were 17 fulltime employees—including six regional trail coordinators working outside the St. Paul offices. A special assistant to the Commissioner was named to head the trails and waterways unit.

### DNR Attitudes

Policy is overtly expressed in written documents and in actions. In addition, spoken or written statements often reveal more subtle attitudes that underlie an agency's approach to demand. Although difficult to describe in a quantified, purely objective fashion, it would be a mistake to ignore these expressions altogether.

From the beginning, most DNR representatives were openly enthusiastic toward snowmobiling. There was little reason that they should not be. Snowmobiling was opening up vast resources for the recreating public. The economic benefits to the state, and to the agency, were obvious. In an address to the 1970 International Snowmobile Congress the Commissioner put it this way (41):

... we in the Department are very ardent snowmobilers. We do it for fun ourselves and we use them, as Bob (the Assistant Commissioner) said, maybe more miles than anybody else.

It was quite natural that a friendly alliance should develop between the DNR and the well-organized snowmobile interest groups. DNR personnel were often invited to organizational affairs, many of which were more social than strictly business. Industry and association representatives had easy access to decisionmakers within the DNR. (Although no interest groups were

**Table 2. Snowmobile Program Expenditures Per Biennium**

Biennium	Total	Breakdown where available	
1968-1969	\$ 150,000		
1970-1971	\$ 825,000		
1972-1973	\$1,685,000		
1974-1975	\$1,045,345	\$ 280,000	bicycle trails
		\$ 581,135	snowmobile trails
		\$ 24,211	cross-country ski trails
		\$ 160,000	law enforcement, signs, administration
1976-1977	\$2,599,632	\$ 239,000	bicycle trails
		\$1,127,583	snowmobile trails
		\$ 76,183	cross-country ski trails
		\$ 214,000	law enforcement, signs, administration
		\$ 942,866	state corridor trails and other accounts
1978-1979	\$2,420,157	\$1,493,616	snowmobile trails
		\$ 160,101	cross-country ski trails
		\$ 6,311	horseback trails
		\$ 467,129	enforcement, signs, administration
		\$ 293,000	state corridor trails
1980-1981	\$2,415,000		

excluded, few other than those representing snowmobiling had the resources to employ fulltime professional staff.) The Minnesota Department of Economic Development actively encouraged this alliance, as did the Upper Great Lakes Regional Commission. Their objective was to establish Minnesota as the "Snowmobile Capital of the World." In the words of one spokesman: "We are exploiting a 'hot one.'" (42).

Until the early seventies there was little effective opposition to the DNR's snowmobile policy, and little reason to alter the agency's smooth, positive relationship with snowmobiling interests. Two events occurred in 1972 that created waves on the quiet waters. The first was the formation of the Governor's Trail Advisory Committee, a group charged with the promotion of opportunities for non-motorized trail users. Secondly, ski touring, or cross-country skiing, was becoming a visible and increasingly vocal competitor for the resources administered by the DNR. DNR statements began to take on a decidedly defensive tone as it attempted to rationalize policy in the face of conflicting views.

A persistent response to skiers' complaints over lack of opportunities and attention were variations on the theme, "those that pays, gets." Certainly this was a valid argument, particularly with respect to the grants-in-aid program. It had less validity in the use of existing public lands. Apparently time had obscured the origins of the first 2,000 miles of snowmobile trails. A new administration had forgotten the message delivered to snowmobilers by the first trails coordinator shortly after he had left the DNR (43):

I'm sure you'll agree that the snowmobile registration couldn't begin to pay for all the land we've designated for snowmobile usage to say nothing of the trail construction and maintenance. Some examples of this are your State Park lands which were originally bought for other uses, your State Forest Lands, your Game and Fish lands, etc. which I'm sure Representative Fritzsimmmons can also tell you, cost a lot more than what is coming in from snowmobile registrations.

The addition of gas tax money did little to modify the basic truth of this statement. Over time, the accounting became distorted and everyone, especially snowmobilers, was encouraged to believe that snowmobilers had paid for their trails and competing demands deserved little attention.

Still, one could detect an underlying sense of guilt, or at least uncertainty as to whether DNR policy was fair. Some evidence is provided by the way data were used to justify the attention given to snowmobiling. The 1974 SCORP, for example, published a list of snowmobile registrations for the period 1969-1974 (44). It wasn't until reviewers protested that a footnote was added to explain that the figures were cumulative and hadn't been purged of inactive machines. The 1974 total of active registrations was actually 68,000 less than the 348,000 total shown. In fact, the total active snowmobile registrations never exceeded 280,000 by far, in spite of an early prediction of 500,000.

In the same report "deficiencies" were calculated on the basis of a standard of "25 miles of snowmobile trail per 1000 registrations." When pressed for the origin of this standard, a DNR spokesman said that it had been

provided by the snowmobile industry.

"Need" was often proffered as justification for greater miles of snowmobile trail relative to other uses. Snowmobiles moved faster, the argument went, therefore they needed more miles of trail to achieve an equivalent experience. It's a little like saying that an overweight person who stuffs food into his mouth needs more than a starving individual who can only take small bites at a time. In any case, this sort of reasoning tended to reward consumption and discourage efficient use of resources.

Some misunderstanding also occurred when the DNR was asked to describe what it was providing for skiers and other non-motorized users. An early document claimed that 500 miles of ski touring trails were available. When one skier inquired as to the whereabouts of these trails, he found that almost all of these miles were either unskiable or were shared with snowmobilers. Part of the problem probably stemmed from the DNR's lack of familiarity with skiing and its requirements. It was also common for the DNR to boast of its tremendous system of "recreational trails," and avoid stating that almost all of these were primarily, if not exclusively, for snowmobiling.

As a growing body of data forced many to question established policy and suggested the need for a more carefully thought out approach to resource allocation, a distinct anti-planning mood became evident. In 1975 the DNR's Trail Coordinator, speaking before the National Trails Council, said (45):

My personal belief is that we can get involved with too many committees and too many diversified opinions. In this case it's extremely difficult to get a trail program off the deck. It's possible to spend too much time planning and end up with too little time for actually developing the trail system.

Everyone likes to have something tangible to show for their efforts. The DNR's Snowmobile trail program had accomplished a great deal—it was frustrating to have it stalled or questioned.

## Other Agencies

The DNR was not acting in an administrative vacuum; other agencies were influencing the availability of snowmobiling opportunities in Minnesota. In particular the response of federal and metro area municipal authorities had significant effects both on snowmobiling directly and on DNR policy.

In the early years snowmobiling was not severely regulated within the metropolitan area; snowmobiles, for example, were allowed to use city parks in the heart of St. Paul and Minneapolis.

Growing complaints and obvious conflicts forced city councils and other authorities to pass restrictive ordinances. Beginning in the core areas, restrictions moved outward in a more or less concentric pattern. Most of the rules dealt with where and when snowmobiles could operate. By the early seventies Minneapolis, St. Paul, and most of the first-ring suburbs limited snowmobiling to daytime use in one or two specific areas. The effect was to eliminate the "backyard" convenience snowmobilers

had enjoyed during the early years. Now most metro area snowmobilers would have to trailer their machines to reach the closest trails and open areas. There is little doubt that this added cost made some city snowmobilers question the value of their investment and contributed to the gradual decline in metro region registrations.

A couple of specific cases will illustrate the difficulties experienced because of these added restraints. The City of Burnsville is a relatively new, third-ring suburb with a fair abundance of open, undeveloped land. An initial attempt to deal with complaints about nighttime noise resulted in an ordinance restricting snowmobiles to a 7 a.m. to 10 p.m. period, "except when going to or from home." It was obviously unenforceable, so the provision that a snowmobile could not operate at night within 300 feet of a residence was added. These regulations had the effect of concentrating activity in the parks and undeveloped areas and thus displacing further the less obtrusive forms such as walking, snowshoeing and skiing; these activities were effectively penalized because they created less disturbance.

In 1971 the newly-created Hennepin County Park Reserve District had acquired close to 16,000 acres of land in five units on the fringes of the metro area but had not yet drawn up management plans, developed facilities or established any effective controls over use of these largely rural, former farmland areas. Meanwhile, snowmobiles were enjoying uninhibited use of the preserves. During the fall of 1971 public meetings were held to provide input to the planning process. Although snowmobiling was clearly at odds with the original intent for establishing the reserves, it took overwhelming demand to bring about effective restrictions. The result was a total ban on snowmobiling except for a few designated trails which were yet to be built.

State government had a stake in the way that municipalities treated snowmobiles. An opinion announced by the Attorney General in 1968 and restated in 1970 advised municipal governments that they could set specific hours for the use of snowmobiles and otherwise regulate them but they could not totally ban the machines. Later the Conservation Commissioner urged uniform, county-wide regulations in order to forestall the more severe restrictions being considered by individual municipalities.

Much of the furor has subsided as most people accepted the fact that snowmobiles could not remain unfettered in the city. The outer fringes of the metro area still provide abundant space for snowmobiling. The state's grants-in-aid program has offered additional inducements for counties and municipalities to build and maintain facilities for snowmobiles.

The Federal government administers approximately three million acres in Minnesota, most of it within two National Forests, including the million acre-plus Boundary Waters Canoe Area Wilderness (BWCAW, formerly the BWCA).

During the late seventies the BWCA was the focal point of the conflict between snowmobilers and cross-country skiers. The controversy began when the Forest Service decided that snowmobiles were equivalent to "winter watercraft" and would be allowed to operate on

the routes designated for motorboats within the BWCA. Skiers challenged this interpretation for several reasons: first, they felt it was a clear violation of the law as stated in the 1964 Wilderness Act; second, there was reason to believe that the federal government was less tied to the snowmobile economy and would be more responsive; and, third, they needed a show of force to demonstrate both their numbers and their needs. A long bitter struggle began in the courts, moved to the Congress, and resulted in new legislation that will eventually limit snowmobiling to two short routes into Canada.

The state's role in this controversy was revealing. At every opportunity the DNR testified on behalf of the snowmobiling interests. Even after the legislation was passed, it continued to challenge federal authority over state waters within the BWCAW in the hope that a ruling in their favor would permit them to liberalize restrictions on motorboats and snowmobiles. Snowmobiling *per se* was not the only issue at stake, however; the fundamental question of state control over surface water needed to be resolved.

The DNR has taken a consistent stance in favor of snowmobiling on other federal lands. In the case of the newly-created Voyageurs National Park, which has yet to determine if and how snowmobiles will be accommodated, the state has argued that overland routes must be provided in order to safely avoid dangerous water conditions. A proposed North Country Trail (NCT), part of the National Scenic Trail System for non-motorized users, is another case in point. Minnesota has taken a firm position that trails on state lands cannot be designated as part of the NCT if snowmobiling is prohibited (46). Only the Federal Wildlife Refuges have been relatively uncontested. Most refuges are closed to snowmobiling; however, two have allowed operation on designated trails. The majority of federal lands in Minnesota, close to two million acres, is open to snowmobiling.

## The Results: Opportunities for Snowmobiling

How can we summarize the results of nearly 15 years of state policy and activity? A look at trail mileage (Table 3) provides one indicator (47).

**Table 3. Snowmobile Trail Mileage<sup>a</sup>**

Year	Trails in State Parks and Forests	Total Trails in State
1968	1,990	3,128
1969-1970	1,714	
1971-1972	2,129	3,500
1972-1973		4,000
1973-1974	2,229	3,500
1974-1975	2,170	6,800
1975-1976		
1976-1977		
1977-1978	1,994	7,000+
1978-1979	1,825	7,000+
1979-1980		8,181
1980-1981		9,024

<sup>a</sup>These figures are estimates and do not represent a carefully drawn inventory

Most new trail miles after 1973 were due to the grants-in-aid program. The slight decrease in trails in State Forests and State Parks occurred because of disuse and new planning requirements for State Parks.

Designated trails are only the tip of the iceberg. Five million acres of State Forest lands are open to snowmobiling. More than three million acres of frozen water surfaces are available. County lands provide nearly three million acres more. Federal lands account for another two million acres. A total of approximately 13 million acres of public land is open to snowmobiling with very few restrictions. This does not include State Park lands or municipal areas that provide additional opportunities.

Over 100,000 miles of highway right-of-way are heavily used by snowmobilers and form important links between origins and destinations. It would be difficult to imagine a comprehensive trail system if these right-of-ways could not be utilized.

Trespass laws have not become unduly restrictive, in part because of the lobbying efforts of snowmobilers and the DNR. Thus, over 18 million acres of private, non-agricultural land that has not been posted is open to snowmobiling.

When it's all added up, close to half of the state can be considered "snowmobile territory." It shouldn't be implied, of course, that snowmobilers can move freely anywhere within this vast area; there are obvious physical barriers and limitations. Nevertheless, they have the option and any *de facto* trails which exist are theirs for the using.

Perhaps even more important than the trails and areas themselves is the bureaucratic infrastructure that was created to support and maintain the snowmobiling

system. During the 15 year period the DNR trail staff grew from two persons to nearly twenty. Administrators, planners, and regional coordinators all contribute to a well rounded organization.

Institutionalized funding from registrations and un-refunded gasoline tax has also helped to perpetuate an ongoing support system. The major success story is probably the grants-in-aid program, with built in mechanisms to insure responsiveness to the needs of snowmobilers.

In summary, snowmobilers not only have claims to a vast territory, they also have established a firm alliance with the primary public land management agency within the state. Minnesota can justly be referred to as a "model snowmobiling state"—a place where snowmobiling has found a friendly home.

## An Analysis of the Response

One approach to evaluating government response to snowmobiling is to attempt to put ourselves in the place of decisionmakers from the very beginning. In the context of the time, would any prudent, rational person have behaved differently? The appeal of snowmobiling was obvious, as were the potential economic benefits. There were vast, "unused" resources with few apparent competitors for their use. There was little reason for restraint. Few foresaw the growth of ski touring or the need to maintain a balance of opportunities.

Perhaps it would be useful to view government response as lying somewhere along a continuum. At one pole we can place absolute prohibition of any new activity; at the other, encouragement and advocacy.

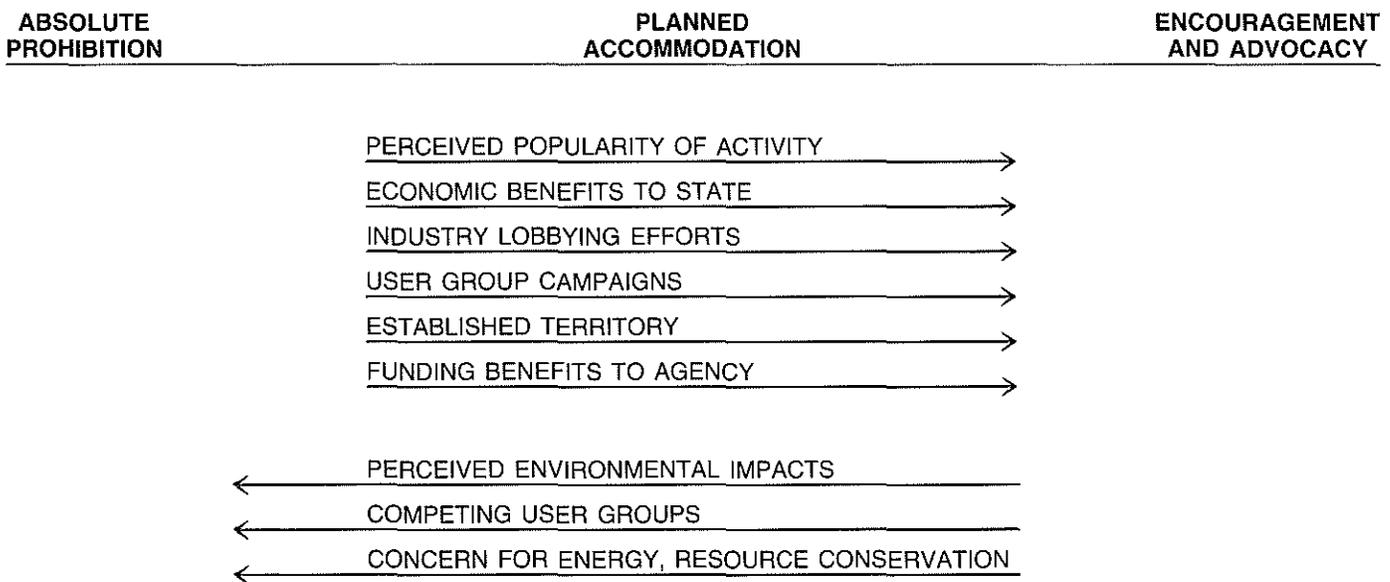


Figure 1: The response continuum and the factors influencing the State of Minnesota's response to the demand for snowmobiling opportunities.

Midway on our continuum would describe a careful, well planned accommodation of any new recreational demand. Various pressures will tend to move the response to one side or the other of the mid-point.

Figure 1 is a graphic portrayal of the continuum and the factors that influenced the state's response. A close look at each of the items in Figure 1 will help us to judge the relative weight of each factor as well as the net effect.

### **Perceived popularity**

Snowmobiling was clearly a popular activity. The very characteristics that made the sport controversial also tended to amplify the apparent rate of participation. The snowmobile is not a subtle, unobtrusive piece of equipment. The noise, speed, color and bulk of the machine make it highly visible. Even when not in operation—whether parked in the yard, sitting in front of a roadside rest stop, or riding on a trailer going north on the interstate highway—it remains conspicuous. And, a few snowmobiles can make a lot of tracks in a short time. The snowmobile and its spoor became ubiquitous; the per participant impression was much greater than for almost any other activity. Later, when statistics entered the equation, participation rates were often exaggerated by those who wished to amplify the popularity of snowmobiling. In addition, participation is strongly affected by available opportunities; thus, a policy which provides trails and areas according to numbers of participants tends to feed upon itself and be self-perpetuating.

### **Economic Benefits**

The economic impact of snowmobiling was one of the most easily documented factors in the play of pressures. And, the benefit side of the ledger—jobs, retail trade, and tourism, to name a few—was easier to identify and quantify than the costs. Very few of the economic analyses, if one could call them that, included the increased costs of law enforcement, damage to property, injury and death, or the depletion of resources.

### **Industry lobbying**

The snowmobile manufacturing industry had both the resources and the incentives to wage an effective campaign to influence politicians and agency personnel. They had sold "freedom" and they were obligated to promote access to all lands, public and private.

### **User group campaigns**

User groups were also well organized, motivated, and supported by the industry. Their "hot line" alerted members to potential threats; legislative appreciation dinners courted favorable treatment; various do-good projects were carefully calculated to counter opposition.

### **Established territory**

As our historical sketch indicated, snowmobiling quickly filled a vacuum before any kind of response could be made by the authorities or decision makers. *Fait accompli* is a powerful argument, in the legal as well as the physical world. It is almost a universal truth that an

organism will fight harder for occupied territory and often subdue foes of greater strength who attempt to wrest it from them.

### **Benefits to agency**

Clearly, the DNR had a vested interest in the encouragement of snowmobiling. A growing bureaucracy was becoming increasingly dependent on the funds derived from the activity. The DNR also administered vast areas of public land which it could manage in a way to promote or discourage snowmobiling. Therein lies the major issue disclosed by this analysis.

The preceding were powerful forces moving the State toward a position of advocacy. What were the opposing forces?

### **Environmental impacts**

Concern for environmental impacts arose early in the evolution of snowmobiling. Consistent with the prevailing attitudes, the burden of proof lay on those who would demonstrate that snowmobiling had a detrimental impact. Thus, time and the vagueness of statistical evidence were on the side of the proponents of snowmobiling. Several studies were initiated, but they were costly, time consuming, and seldom resulted in definitive answers; furthermore, they didn't seem to have much effect on policy. Funding and enthusiasm soon waned.

### **Competing user groups**

Ski tourers were the major recreation group to rise in opposition to the state's snowmobile policy. Skiers got off to a late start, seemed to have less enthusiasm for organization than did snowmobilers, and received relatively little support from the commercial establishment. The latter was very fragmented and had few resources to contribute to lobbying efforts or club activities. Cross-country skiers had a poor perception of their needs and little consensus on a proper strategy, since it was difficult for them to perceive the value of something they had never experienced; in contrast, snowmobilers had a very vivid impression of what was at stake. Minntour, a state wide federation of ski touring clubs, existed from 1974 until it was phased out in 1982. Early in its history it was very effective in dealing with the BWCA issue; later, the effort required to hold the federation together became greater than the perceived benefits.

### **Energy and resource conservation**

In the mid-seventies, when energy was a serious concern, snowmobiling was too firmly entrenched to be seriously threatened. Supporters could easily counter the case for limitations by pointing out that other forms of recreation also consumed energy, and snowmobiling should not be singled out and discriminated against. Indirectly, the increased stigma associated with overt consumption and the general state of the economy may eventually affect policy simply because there will be less snowmobiling activity to support the proponents position.

Under this scheme, few would disagree that the

pressures toward a position of advocacy were overwhelming. This conclusion is supported by the fact that the state consistently took a position of supporting the use of snowmobiles on Federal lands; also, a number of DNR staff left the DNR to become employees of the snowmobile industry or user organizations.

The adequacy of the response cannot be judged solely on its direction, however; the real question is whether the response is equitable with respect to competing uses for the resource, and whether it is flexible enough to take into account fluctuations in demand by various recreational land-use alternatives.

Equity, as a measure of quality of government response, is difficult to define. Although it could be evaluated on the basis of relative numbers of participants in the competing forms of recreation, there are those who would argue that actual per capita needs and/or funding sources should be taken into account as well.

It wasn't until 1979 that the DNR had a reliable estimate of skier numbers. The 1979 SCORP inventory showed 500,000 cross-country skiers as compared to 980,000 snowmobilers. Skiers have grown rapidly in numbers whereas snowmobiling has leveled off or decreased. The allocation of land and trails to skiers is nowhere near proportional to their numbers. One could argue that they really don't "need" that much area, or that their complacency reflects the value they place on additional opportunities, and therefore it is unnecessary to make any large adjustments in resource allocation. Funding, of course, will tend to modify trail construction and maintenance programs. Snowmobilers have contributed millions of dollars; skiers have contributed little except their interest in the public lands. The way in which funding should influence the allocation of existing public lands is a distinct and major issue, one that the DNR was reluctant to acknowledge or address. Another way to put the question: Should public lands be treated the same as private property, *i.e.*, should they be used primarily to generate funds to support the administering agency? The latter, in effect, is what happened in regard to snowmobiling in Minnesota. This view of the function of public lands tends to exclude those very uses—to provide for forms of recreation or public benefits that are less easily captured in an economic sense—which are the primary justification for their existence. The question becomes even more critical as agencies desperately seek sources of revenue in times of financial stress.

Flexibility is closely tied to equity. Large areas were quickly committed to snowmobiling. Little provision was made to re-evaluate needs and adjust resource allocation to a changing pattern of demand. Thus, Minnesota established a precedent that is very difficult to alter—despite a significant change in relative demand. As it stands, skiers must be content with the "leftovers"; the prime areas and trail routes have been pre-empted. Marked as well as *de facto* trails are subject to prior claims—and even if unused, snowmobiling interests will fight tenaciously to maintain their options.

Is equity or fairness the last word in our analysis? Even if we conclude that resource allocation was grossly inequitable or unfair, it does not necessarily follow that it was "bad." Perhaps a quick, generous response was the

best way to realize maximum benefits from what may be a relatively short-lived phenomenon. Furthermore, the physical and administrative system created for snowmobiling may ultimately benefit other forms of recreation. One could even argue that skiers, for example, would not have the opportunities they have today if it were not for snowmobiling. Certainly, without snowmobiles, they would have vast areas and thousands of miles of *de facto* trails to themselves; but, they may not have gotten some of the more refined, well marked and groomed trails that have been provided as a form of compensation. One can't be certain; a lot would have depended on their willingness to accept some sort of fee on their activity.

Eventually the snowmobile trails, both newly created and those that were appropriated from other uses, may revert to skiers, snowshoers, and winter hikers. Future generations may thank the snowmobile in the same way current trail users are grateful for the rights-of-way established by the railroads.

One other way of evaluating Minnesota's response is to compare it to that elsewhere. Most European countries placed severe restrictions on snowmobiling almost as soon as it made an appearance. In Norway, for example, snowmobiles can only be used on private property, and even there seldom for any purpose other than emergencies or utilitarian uses. Ironically, the latter includes the grooming of cross-country ski trails. This policy is consistent with the protection of a well established tradition of skiing and a national commitment to promote physical fitness. Many other European countries have similar regulations and attitudes.

We can ask ourselves whether this kind of response would have been appropriate for Minnesota. The timing was very different; Minnesota, in spite of its Nordic heritage, did not have a significant ski touring tradition. Nor had the public, as yet, developed much interest in physical fitness. Conditions were not the same as those in the European countries; nevertheless, we may have benefited from a closer look at an older culture that provides clues for our future.

## The Ideal Response

An exercise of this sort is probably mere indulgence unless it suggests better ways to deal with future demands of a similar character. We have hinted that a slower, more thoughtful or planned approach to snowmobiling may have led to fewer conflicts and a more equitable allocation of resources. How does one "buy time" for this type of response? Not enough decision-makers anticipated the snowmobile or recognized its potential when they saw it. New technologies are awaiting us, and no one has a reliable crystal ball.

Planning can only be effective if we are able to make an immediate, automatic response to any new recreational demand that places it in some sort of holding pattern until the planning process can get under way. An automatic response requires that we have a broad, all-inclusive scheme that establishes categories to dictate initial policy toward any conceivable form of recreation. One obvious, and fairly simple, division is motorized/non-motorized. The former has already demonstrated a

capacity to quickly dominate large areas of space and displace other uses. It follows that any type of recreation falling into this category should be carefully evaluated before large areas are opened to its use.

In the derivation of policy it is well to consider that equal treatment is not necessarily fair treatment. A *laissez faire* approach favors those forms of recreation that are least affected by other uses, which they tend to dominate and displace. By way of contrast, the less obtrusive forms often depend on deliberate, government imposed controls to protect the kind of environment essential to their experience. Thus, there is less need to impose immediate and severe restraints on the non-motorized or low technology forms of recreation. Nevertheless, for the sake of perceived fairness, it may be best to limit the initial commitment to these activities as well.

Before any large allocation of public land is made a team of experts, including both those versed in technology and social impacts, could examine the equipment and the associated recreational activity. A judgement would be made as to its potential appeal, environmental impact and effect on other forms of recreation. We would then have the basis for a pilot program designed to test whatever conclusions were arrived at. All of the knowledge thus derived could then be shared with the public, which should be involved directly in the allocation of resources. Public involvement must be open to all; an agency should not be permitted to pick and choose which public it will listen to. Nor should public involvement be of the sort that would allow a simple majority to dictate the allocation of all resources so that minorities are left with nothing. Land use decisions lend themselves to some form of proportional representation.

An essential characteristic of any decision-making process should be that those that benefit from funding derived from an activity are separated from those who decide how much of the public lands are devoted to that activity. As much as possible, opportunities for decision-makers to act in self-interest should be eliminated. As it stands, only the legislature can do this, and then only to a limited extent; in addition, it is not immune to pressures, it is slow to respond and reluctant to usurp what it views as the professionals' responsibility. A more direct form of public input may offer a partial solution.

In our discussion of an ideal response, we have not attempted to outline a specific, detailed procedure. Rather, it has been our purpose to suggest some of the characteristics of the decision-making process that we feel are important. In the final analysis, the public must decide how it wishes to decide.

## Epilogue

Some changes have taken place in the status of snowmobiling and the policies of state government since that first encounter back in the sixties. Things seem to have settled down a bit. Snowmobiling has stabilized in terms of participation and the organizations continue to push for new opportunities and the assurance that the old trails will be maintained. In 1982 snowmobilers lobbied successfully for a 50 percent increase in registration fees so that the DNR would have adequate funding

for their snowmobile programs. Snowmobilers have demonstrated that they understand how the system works.

Decisionmaking on the part of the DNR has also evolved. Public participation has become a routine part of most management decisions and, to some extent, of the comprehensive planning process. Reorganization within the DNR has helped to break some of the ties with snowmobiling interests and thus reduce the indebtedness that may have influenced a few individuals. A 1975 Recreation Act requires that each state park undergo a thorough re-evaluation and planning process before any new facilities or uses are incorporated. A comprehensive trail inventory and a state trail plan are nearing completion. And, an intensive effort to develop an overall management plan for 5 million acres of state forest lands could bring about some profound changes.

Yet, despite the numerous procedural changes, fundamental relationships remain the same. Increased public involvement in the form of public hearings and solicited statements provides no assurance that the DNR will weigh that input in an objective fashion; it still can respond selectively to those publics which agree most with their established policy. Ironically, new planning requirements may slow down attempts to allocate resources more equitably; it would be nearly impossible now to provide cross-country skiers with 2,000 miles of "instant trails," even though their numbers far exceed the number of snowmobilers that existed when the same was done for that group. Although some new ski trails have been created, the ratio of lands and trails for skiers and snowmobilers has changed little.

Despite these other changes, the DNR's dependence on funds derived from snowmobiling has remained constant. Land use decisions are still influenced by this dependence in the way they have been for more than a decade. At this time, however, new legislation is being prepared that would require fees from other user groups. This course is probably the only one that will bring about any long range, effective change in land use allocations. A lot will depend on how skiers and other recreation interests react. The mechanisms used to extract fees will also be a factor; only a system that encourages the DNR to provide more areas and trails will bring about significant changes. That is, revenues should be sufficient and directly tied to the number of opportunities made available by the DNR.

Demand and response will probably always have a tenuous relationship. In Minnesota, the DNR is making a sincere effort to align the two in a way that brings about a fair, efficient allocation of the state's limited resources.

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