Opportunities to participate in outdoor recreation will become increasingly important in the future. This broad outline emphasizes the urgent need for co-ordinated planning by all concerned with the management of recreation on public and private lands. Forests are an important recreational resource and this paper does no more than attempt to provoke further thought and encourage co-operation; it does not attempt to suggest how people should use forests.

The national duty is to provide recreational opportunities, without ignoring the responsibility to preserve natural resources.

INTRODUCTION

With 14.2 million acres of indigenous forest and 1 million acres of exotic forest, New Zealand is richly endowed. Together they represent 23% of the total land area. The areas and tenures are illustrated in Fig. 1.

To ensure that all concerned with managing these areas of forest are thinking and talking about the same thing, an attempt should be made to define broadly "recreation in forests". Webster's Dictionary defines recreation as "refreshment of the strength and spirit after toil; diversion, play; also mode or means of getting diversion or refreshment". Recreation in forests is something quite different from what is called recreation by a large number of urban dwellers. In seeking a definition for forest recreation, we only need to add the words "in forests" to a definition of Dr C. F. Brockman of the College of Forestry, University of Washington—"The pleasurable and constructive uses of leisure time".

One hundred and twenty years after "pioneers" earnestly set about burning, clearing and utilizing forests that then occupied two-thirds of New Zealand, we are beginning to think (but not seriously enough) about the protection and recreational values of the remaining forests—now reduced to a quarter of the land area. These pioneering people laboured long hours cutting timber and replacing forest with grass. The average working week of those days left little time for play or for philosophical discussion on the recreational use of forests which then were more enemy than friend. Theirs was neither the time nor the environment in which to foresee the main factors that would create recreational use of forest lands—more leisure time, more money to spend (and more people wanting to do more with it), increased mobility, and the desire of so many urban people to escape from sophisticated city life. These factors will increase the future recreational use of forests.
Forests and other lands. Present policies and management will not meet future needs, and old ideas will have to be replaced with new and bolder concepts. When planning recreation for the future we must also be planning for preservation. With more people requiring more space for their livelihood, preservation will become more difficult. We must look ahead and attempt to see how much of New Zealand's recreational resource is likely to be over-used or utilized for other purposes.

Who in the foreseeable future is to study the combined needs of outdoor recreation and preservation of natural resources?

The United States Government has long recognized that recreation is a human need essential at all times to the well-being of people, and that it should receive the same relative degree of technical attention and administrative planning as is now given to the other forms of land utilization (Dana, 1957).

We must avoid such a situation as the bitter debate that for so many years engaged the United States Forest Service and the United States Park Service when lands potentially suitable for
national park were withdrawn from Forest Service control. During a discussion at the recent First World Conference on National Parks, the Chief of the United States Forest Service, Edward P. Cliff, stated that he did not really think there was competition between the Forest Service and the Park Service. Lands for both are managed for different purposes. The Park Service should not be expected to carry the whole recreation burden. Many national parks are surrounded by national forests which ease the impact of people and protect the former against over-use. These two national systems are rather complementary to each other and as the population grows the Forest Service will inevitably be taking care of more people. The earlier clash apparently resulted from failure to understand the values of different types of recreational land. In New Zealand we must understand fully why there are recreational zones managed as national park, State forest, scenic reserve or occupied and unoccupied Crown land and that there is no need for any type of competition that curbs good over-all administration of them.

**NATIONAL PARKS**

The National Parks Act, 1952 requires that there be preserved in perpetuity as national parks, for the benefit and enjoyment of the public, areas of New Zealand that contain scenery of such distinctive quality, or natural features so beautiful or unique, that their preservation is in the national interest. Administered by the Department of Lands and Survey this Act set up a National Parks Authority, comprising representatives of departments and organizations with particular interests in parks, to define general policy. It also constituted Park Boards to manage each park. The 1962 First World Conference on National Parks favoured policy control by such a statutory organization charged with permanent trusteeship.

Considerable foresight has given New Zealand 7% of its land area in nine national parks and another 1.6% in scenic and other reserves and thus has provided for some outdoor recreation. United States National Parks people often commented “at least you have the land, something we have failed in: we have less than 1% in national park areas and now it is too late”. However, greater wisdom will be needed in the face of changing conditions. Seven per cent. of the total land area as national park may be impressive, but it obscures the fact that 84% of the park area is in the South Island where only 30% of the people live. The South Island also contains Fiordland, New Zealand's largest national park of 3,023,100 acres, which is 66% of the total national park area of 4,571,172 acres. In parks such as Fiordland there are large unused areas, but this does not lessen the importance of their preservation. There is infinite variety of scenery in national parks but an uneven distribution of parks and population. To serve North Island needs forests and other reserves will have to play their part in outdoor recreation.

Did early settlers envisage a great public interest in recreation in forests? No. These people set land aside for reasons of conservation rather than to serve recreational needs of the future. In 1881 they doubted the wisdom of cutting bush on the slopes of Mount Egmont. In consequence land within a circle having a radius of six miles around the summit of the mountain was set apart as a reserve—"for the growth and preservation of timber". Egmont
became New Zealand's second national park in 1900, when half of the Taranaki and Wellington provinces were already in grass. Forests were not involved in the 1887 reservation of 6,500 acres comprising the mountain tops of Tongariro, Ngauruhoe and Ruapehu as New Zealand's first national park. It was a move to settle tribal claims, and to avoid the inevitable partition among Europeans. The demand for recreational facilities in national parks has grown considerably in recent years and today it is evident that people intend to make increasing use of them.

RESERVES

Reserves for scenic and historic purposes totalling 673,821 acres are subject to the Reserves and Domains Act, 1953 which contains provisions similar to those of the National Parks Act. These reserves are under the over-all control of the Department of Lands and Survey. Local control is delegated in many cases. Of 886 separate reserves, 183 are controlled by boards of private individuals, 120 by local authorities, 35 by other authorities and 548 by the district Commissioners of Crown Lands. There are seventeen reserves in excess of 5,000 acres. Legislation has now placed the oversight of scenic reserves under the general jurisdiction of the National Parks Authority and it is proposed to widen opportunities for public enjoyment of these areas. Many are of easier access than national parks and forests and there is some urgency for providing recreational facilities under a national park concept. There are 913 public domains totalling 61,767 acres.

An additional twenty-nine reserves totalling 446,927 acres are bird sanctuaries and areas set aside for the preservation of flora and/or fauna. These reserves are also administered by the Department of Lands and Survey. They are subject to the Reserves and Domains Act, 1953 and, unlike national parks and scenic reserves, public access is limited and permits to enter are necessary. Some of them are mainland areas but most are off-shore, outlying and sub-antarctic islands.

FORESTS

All classes of land may have some recreational value but the most important values of forests are generally not recreational. The Forests Act, 1949 permits the N.Z. Forest Service to manage State forest land for recreational and amenity purposes not prejudicial to forestry. Because of this restriction, some of the 10 million acres of State forest land will not be available for recreation, and on much of it recreation will, necessarily, be secondary to other roles. Nevertheless, it must be remembered that the N.Z. Forest Service controls over 7½ million acres of non-productive and non-commercial forests in which recreation may be a major form of use. The primary use for most non-productive State forests is, of course, for protection but their use for recreation and amenity is generally not incompatible with this primary use. In fact much of the area is already successfully performing such a dual-purpose function. Considering that the non-commercial indigenous State forests comprise 11.5% of the total land area of New Zealand, and considering the high recreational potential which this land has, there can be no doubt that future forest authorities will be forced
to recognize the recreational demand which a growing public will make on State forests, and to cater for it accordingly.

The Tararua Forest Park (250,000 acres) is managed to develop recreation to the fullest extent compatible with the maintenance of protection forestry values. Initially, the Advisory Committee consisted of representatives of recreational interests. It has since been balanced by the addition of conservation representatives. The 12,300 acres of the Craigieburn Forest Park are managed entirely under a State Forest working plan. Although recreation is only a secondary objective, the dominant use is skiing. It was announced recently that investigations are now being made by the Forest Service into the creation of a new forest park covering an area of 700,000 acres west of Nelson. Members of advisory committees who represent recreational interests can contribute much to the management of areas such as Forest Parks.

State forest land may also be set aside as forest sanctuaries to preserve in a natural state the indigenous flora and fauna, or for scientific and other like purposes. The main area set apart is Wai-poua State Forest of 22,500 acres which preserves a substantial stand of kauri trees. Land may also be leased for recreational purposes if not prejudicial to forestry. Often forests which are suitable for recreation are neither beautiful nor outstanding enough to be maintained as natural areas; some are already duplicated in national parks and scenic reserves.

A common policy in national parks and State forests is that recreation must not be prejudicial to the primary objectives. National parks have the advantage of freedom of access by right, except in one special area set aside for the protection of takahē in Fiordland National Park. Outside national parks a demand is likely to develop for timber from forests now considered too inaccessible or unmerchantable. The type of management will determine whether their recreational values will be destroyed or maintained. Adjacent occupied Crown lands, mainly tussock grasslands and mountain lands, are often linked to the use of South Island mountain forests and their high recreational value cannot be ignored.

What has happened since the early days when the number of people “hacking at the bush” outnumbered others in New Zealand?

Table 1 summarizes both the population increase within New Zealand and the change from 9% rural to 27% urban predominance in sixty years. From urban populations come most of the ever-increasing numbers of potential users of land for recreation. In 1858 North Island population exceeded the South; the South led the North from 1861 to 1896; since then North Island population has steadily increased, until now 70% live there. This denser population is becoming much more urbanized. Needing more outdoor recreation, it will make greater demands upon natural resources.

In 1961 North Island, with an area of 44,297 sq. miles, had a population density of 38 persons per sq. mile. In South Island (59,439 sq. miles) population density was 12 persons per sq. mile. The 21,225 sq. miles of Northland, Central Auckland-Bay of Plenty averaged 45 persons per square mile. We have a responsibility to provide outdoor recreational opportunities for the rapidly increasing population in these urban areas.
TABLE 1: POPULATION

<table>
<thead>
<tr>
<th>Census Date</th>
<th>Total</th>
<th>Urban</th>
<th>Percentage of Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901†</td>
<td>815,853</td>
<td>45.4</td>
<td>54.0</td>
</tr>
<tr>
<td>1906‡</td>
<td>936,304</td>
<td>47.9</td>
<td>51.6</td>
</tr>
<tr>
<td>1916‡</td>
<td>1,149,225</td>
<td>53.7</td>
<td>46.0</td>
</tr>
<tr>
<td>1926</td>
<td>1,408,139</td>
<td>56.1</td>
<td>43.4</td>
</tr>
<tr>
<td>1936</td>
<td>1,573,810</td>
<td>56.7</td>
<td>43.0</td>
</tr>
<tr>
<td>1945‡</td>
<td>1,702,298</td>
<td>60.2</td>
<td>39.6</td>
</tr>
<tr>
<td>1956</td>
<td>2,174,062</td>
<td>62.6</td>
<td>37.2</td>
</tr>
<tr>
<td>1961</td>
<td>2,414,984</td>
<td>63.6</td>
<td>36.1</td>
</tr>
</tbody>
</table>

† Maori population not included in 1901–1916 census.
* Shipboard figures, not shown, account for discrepancies in percentages.
‡ Excludes N.Z. Armed Forces personnel overseas and members of armed forces of other countries who were in N.Z.
(A greater increase would be shown in urban population if it included the substantial gains recorded in four urban counties on the outskirts of main centres of population.)

By 1980, when New Zealand's population is expected to reach 3,472,000 (assuming a net immigration of 5,000 per year), the proportion of urban to rural dwellers will be even more uneven than today. The 41% of today's population in the age group under 21 years is a good reason for looking at immediate recreational needs. Immediate objectives should be to provide recreation for this age group and help them to make the best use of their leisure time as a phase in the "preserve in perpetuity" concept.

The N.Z. Official Year Book 1962, from which the figures above were obtained, states:

In New Zealand there is a great area of high mountainous country, particularly in the South Island, while there are also large areas of water or of broken, swampy or hilly country which is either incapable of effective use or which can be used profitably only for pastoral purposes, afforestation or the like.

This statement is regrettably incomplete.

The benefits that might be expected to accrue from land determine its true value, and outdoor recreation should have been included in the profitable uses. Too often is there in official statements no mention of recreation as a land use.

RECREATION PLANNING

Foresters find it easy to appraise timber in a forest. It is very difficult, however, to determine recreational value of forested lands. Recreational planning should remain incidental to the major use of New Zealand forests. Under the slogan of "equal consideration for 'Wildlife, Wood, Water, Forage and Recreation'" United States foresters talk rather nebulously of multiple use—a catch phrase the writer abhors. Carhart, a land use planner, commented in 1961:

The term multiple use was just being established when I was trying to hack out basic precepts and policies for recreational use of our national forests. Under the slogan of "equal consideration for 'Wildlife, Wood, Water, Forage and Recreation'" United States foresters talk rather nebulously of multiple use—a catch phrase the writer abhors. Carhart, a land use planner, commented in 1961:
National parks are essentially outstanding scenic areas intended as sanctuaries for native plants and birds and providing special protection for rare and vanishing species. The dominant and best use is preservation in the natural state (an essential feature of which is natural change), with equal opportunities for types of recreation not prejudicial to this. Besides providing simple pleasures, seven of New Zealand's parks have characteristics specially suitable for ski-ing or mountain climbing, both of which have expanded considerably within the last decade. Those concerned with mountain recreation are responsible for the amount of recreation written into the National Parks Act.

In the public mind there is too much emphasis on physical recreation in national parks. It must not become a dominant or single use. National parks need not be locked plant sanctuaries, but restrictions on some recreation are needed to preserve the parks. All parks are good for most healthy outdoor recreation but not all types of recreation are good for parks. National parks must place restrictions on the amount and types of use or they will not survive—a generalization that could be further extended to other areas. It should not be necessary to supply inappropriate entertainment to make them popular. Our future job is to maintain our national parks as National Parks, not to water down the quality by accepting second-rate additions purely in the interests of physical recreation or larger acreages. There are approximately 3 million acres of forests in the 4.5 million acres of national park, and although these forests are being modified mainly by introduced animals, they contribute much to the beauty of our parks. Forests in national parks are a trust to be held inviolate.

Recreation is common to national parks, scenic reserves and indigenous State forests and it must remain one objective in all three types of management—never becoming either dominant or exclusive. Should recreation dominate, management could evolve along the lines of United States National Recreation Areas. These are Federal reservations established primarily to preserve and develop, for public enjoyment, recreational resources of national significance, under a system of management designed to permit other forms of resource utilization. This form of classification does not seem suited to the New Zealand scene because there are ample private areas and public domains available for recreation and there are already enough reserve classifications. The four areas so far set aside in the U.S.A. are all lakes constructed for the production of hydro-electricity.

In New Zealand, comparatively few people are involved in "pleasurable and constructive use of leisure" in forests. Ask people what they do for outdoor recreation. Swimming probably heads the list. Many people seek other water recreations. Free access to seashore, lakes and rivers is important. Swimmers, rugby players and watchers, sunbathers, horse racing enthusiasts, sightseers, home gardeners, boat enthusiasts, fishermen, cricketers, Sunday motorists and Saturday afternoon drinkers could probably produce figures that put forest recreation in perspective, if statistics are quoted in terms of man days of use. On the other hand, who can produce statistics for the aesthetic pleasure a small area of forest or a single tree can give to thousands. The quantity and quality of appreciation is difficult to prove.
Nothing enriches outdoor enjoyment more than information about plant and animal life. National parks are becoming places of education for the man in the street. This must lead to a better public appreciation of the values of parks and nature conservation, and to even greater demand for use.

Forests provide me with much of my recreation, and with many intangible advantages that other people also enjoy. It is not proposed to list the many other beneficial uses of forests. We should plan to assure for future generations the same opportunities that have given us the many physical, spiritual and educational benefits we enjoy. This is the time for New Zealand to make recreation in forests a reality. We must also make up our minds and decide if forests are to provide only simple pleasures such as walking, fishing, hunting and camping for all age groups, or are to become places for inappropriate entertainment.

Planning requires a preliminary study which will disclose what the people want of their forests, but the first need is an inventory of all recreational resources. A long-range plan is needed in which the different types of forest lands are integrated to provide opportunities for outdoor recreation for the future.

CONCLUSIONS

(1) Recreation needs will increase in New Zealand, where at present most land has a higher priority for other uses.

(2) Forests provide recreation, and the demands on them will increase. At the same time the demands on national parks, State forests, scenic reserves, seashore, lakes and rivers will also increase.

(3) National park distribution bears little relation to population distribution.

It is advisable to make a recreation resource inventory from which recreation capacity can be planned. It should reveal the level of protection required for native and introduced birdlife and the degree of control required for introduced animals. A well-planned long-range programme must yield a more economic management of national parks, reserves, forests and Crown lands. It must emphasize the national policy of preservation, and must avoid duplication in management and confusion in the public mind.

In the United States a Bureau of Outdoor Recreation was recently established within the Department of the Interior for these purposes. In New Zealand it should be possible and is desirable to achieve the same results under a nationally uniform policy agreed upon by the departments and organizations concerned with recreation.

ACKNOWLEDGMENTS

I acknowledge with sincere thanks the help I have received from colleagues. They are, of course, not responsible for any opinions I have expressed.

REFERENCES