

## WORLD HERITAGE NOMINATION - IUCN SUMMARY

### 421 TONGARIRO NATIONAL PARK (NEW ZEALAND)

Summary prepared by IUCN (August 1990) based on the original nomination submitted by New Zealand and other sources. This original and all documents presented in support of this nomination will be available for consultation at the meetings of the Bureau and the Committee.

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#### 1. LOCATION

Situated in the Tongariro and Wanganui regions on the central North Island volcanic plateau. The boundary encircles the Ruapehu, Ngauruhoe and Tongariro mountain massif at an altitude of 500-1550m. An outlier, 3km north of the main park area and separated from it by Lake Rotoaira, includes Lake Rotopounamu, Mount Pihanga and Mount Kakaramea. The total area of the park is 79,596ha.

#### 2. JURIDICAL DATA

Established on 23 September 1887 by deed of gift when Paramount Chief Te Heuheu Tukino of the Ngati Tuwharetoa people presented 2,630ha of the central volcanic area to the government. The area was constituted as the nation's first National Park in 1894 and gazetted in 1907 with an area of 25,213ha. By 1922, when the Tongariro National Park Act was passed, the size of the park had increased to 58,680ha. In 1975 the outlying Pihanga Scenic Reserve (5,129ha) was added, and further additions were made in 1953 and 1962. The current enabling legislation is the National Parks Act, 1980.

#### 3. IDENTIFICATION

The park lies at the southern end of a discontinuous 2,500km chain of volcanoes which extends north-east into the Pacific Ocean. The volcanoes in the park, which are predominantly andesitic in composition, fall into two groups on the basis of location, activity and size. Kakaramea, Tihia and Pihanga volcanoes and their associated vents, domes, cones and craters form the northern group. These lie on a 10km north-west to south-east axis and have not been active for some 20,000-230,000 years. The active group extends for some 20km along a south-west to north-east axis, with a width of some 10km and comprises Tongariro, Ngauruhoe and Ruapehu volcanoes. The Tongariro complex consists of recent cones, craters, explosion pits, lava flows and lakes superimposed on older volcanic features. In addition to these major features, the park contains other extinct volcanoes, lava and glacial deposits and a variety of springs. Extensive glaciation up to 14,700 years ago eroded both Tongariro and Ruapehu and glacial valleys with terminal and lateral moraine formations are present. Glaciers are currently restricted to Mount Ruapehu although all are less than 1km in length after several decades of retreat.

Habitats are diverse, ranging from remnants of rain forest to nearly barren icefields. From the lowest altitudes to 1,000m in the west and north, about 3000ha of once wide spread mixed Podocarp-broadleaf rain forest is present. At higher altitudes beech forest occurs. Scrublands cover some 9,500ha.

Tussock shrubland and tussockland cover extensive areas in the north-west and around the mount Ruapehu massif at about 1200-1500m. The highest altitudes in the park are dominated by gravelfields and stonefields. The vertebrate fauna is restricted mainly to birds although native mammals are represented by short-tailed bat and long-tailed bat. More than 56 bird species have been recorded in the park including brown kiwi and North Island fern bird.

The area has been occupied by Maoris since they first arrived from Polynesia and ethnic mythology identifies the mountains in the park with 'tupuna' or god-like ancestors. Until the land was given to the nation in 1887 the area was occupied by the Tu Wharetoa tribe.

#### 4. STATE OF PRESERVATION/CONSERVATION

The park is valued for its landscape, cultural importance, ecological diversity, as breeding habitat for a number of threatened species and for recreation. The 1990 management plan was prepared by the Tongariro National Parks and Reserves Board and approved by the National Parks and Reserves Authority. The 1980 National Parks Act provides all protective, legal and administrative mechanisms for the park. The park is classified into natural environment, two wilderness areas, two pristine areas and three amenity service areas. Skifield development has been restricted and developments are prohibited above 1,500m in the Tongariro and Ngauruhoe area, and above 2,250m on Ruapehu Sport hunting of introduced red deer, goats and pigs is permitted under license and programmes to eradicate lodgepole pine, heather and broom are undertaken. The relative paucity of wildlife stems from the nationwide problem of introduced species. Furthermore, native flora have been reduced by exotic herbivores such as red deer and possum. Invasive lodgepole pine threatened to convert native communities into forest and has been a particular problem in the eastern Rangipo desert area.

The park receives up to 800,000 visitors annually, mostly during the ski season.

#### 5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST

The Tongariro National Park Nomination, as presented by the Government of New Zealand, provides the following justification for designation as a World Heritage property:

a) Natural property

- (i) Earth's Evolutionary History. The park lies at the south-western terminus of a Pacific chain of volcanoes aligned along a major tectonic plate boundary.

(ii) Ongoing geological processes. The park's volcanoes contain a complete range of volcanic features. The related ecological succession of plant communities is of special scientific interest.

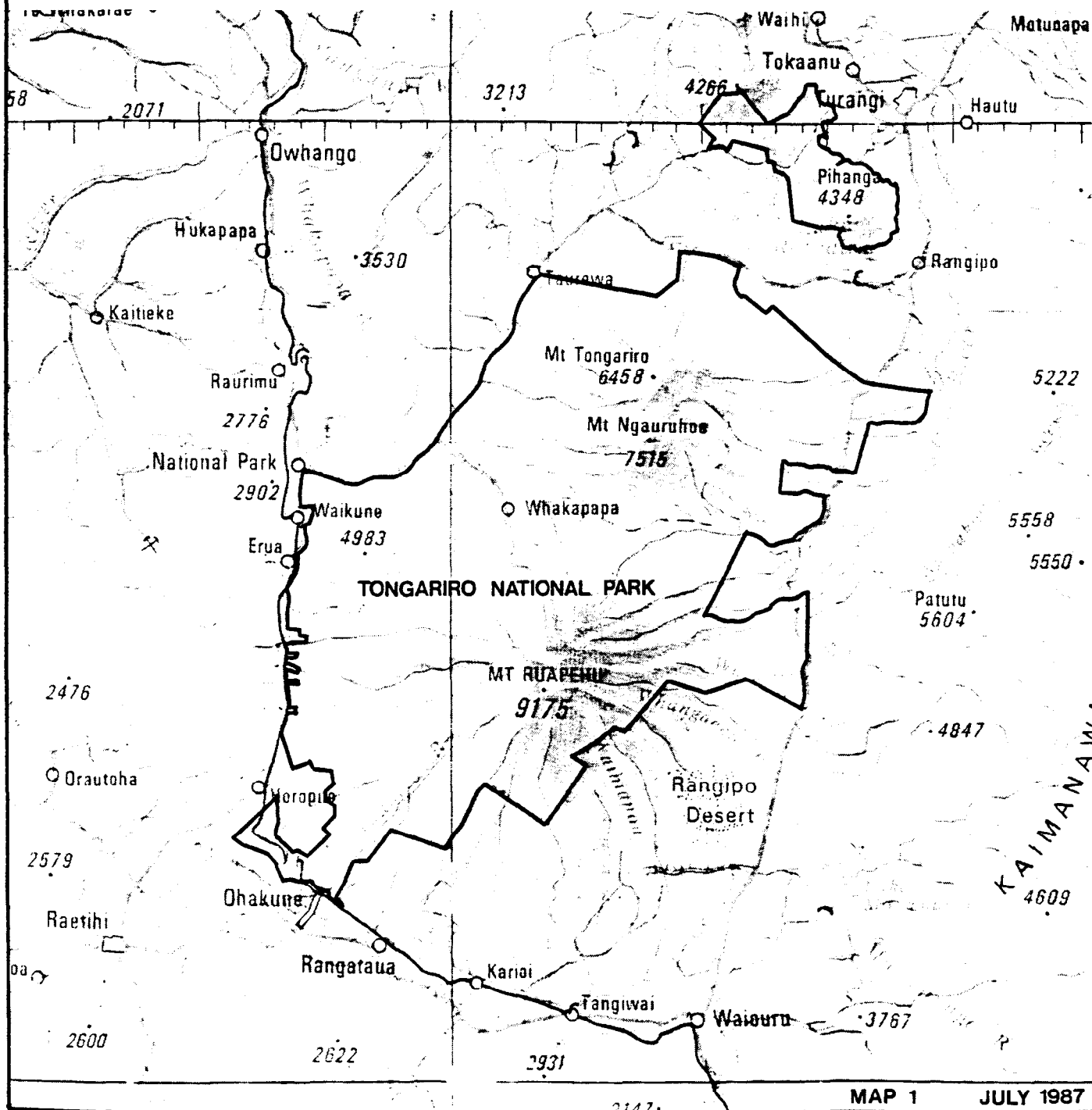
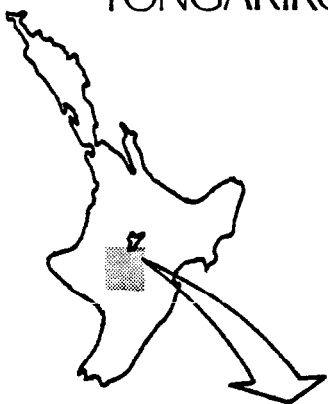
(iii) Superlative natural phenomena and natural beauty. The main volcanic peaks are outstanding scenic features of the island.

b) Cultural property

Criteria for cultural property are being assessed by ICOMOS.

# TONGARIRO NATIONAL PARK MANAGEMENT PLAN

## LOCALITY PLAN TONGARIRO NATIONAL PARK



MAP 1 JULY 1987

WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION

421 TONGARIRO NATIONAL PARK (NEW ZEALAND)

1. DOCUMENTATION

- (i) IUCN Data Sheet
- (ii) Consultations: D. Pitt, C. Burns, J.W. Cole, D. Given, R. Milne, H. Eidsvik, G. McSweeney, P.H.C. Lucas, K. O'Connor, B. Jefferies, D. Thom, B. Houghton, New Zealand Government Officials.
- (iii) Additional literature consulted: Tongariro National Park Management Plan 1990. Department of Conservation 3 Vols.
- (iv) Site visits: January 1986, August 1987, March 1990 (J. Thorsell).

2. COMPARISON WITH OTHER AREAS

Within the Neozelandia Biogeographical Province there are 145 protected areas, including several areas which comprise the SW New Zealand World Heritage nomination. These are on the South island and their features are not comparable with Tongariro which is exclusively a volcanic landscape on the North Island. Within New Zealand, Tongariro stands out as the protected area with the greatest diversity of volcanic features.

Within the South Pacific region Tongariro is the south west terminus of the Pacific "ring of fire", a series of volcanoes that extends virtually around the Pacific Ocean. These include Fujiyama in Japan, Krakatau in Indonesia, the Kermadec Islands and Mt. St. Helens in the USA. The distinctions of Tongariro are that it is fully protected, it is one of the most active, it is especially high in scenic values and it displays an exceptionally wide range of volcanic features. Distinctions can be made with the World Heritage site on the island of Hawaii which is a shield volcano (rather than one occurring at the edge of a continental plate), is much larger in size, more continuously active and the site of a more active research programme.

There are numerous other parks in the world with volcanic features, including Timanfaya in Spain, Kilimanjaro in Tanzania, Sangay in Ecuador, Katmai in Alaska and the Hawaiian Volcanoes. There are also 500-600 active volcanoes worldwide including 11 in the Philippines and 77 in Indonesia, but it is difficult to make "value" comparisons among these as all have a certain uniqueness. Certainly Tongariro's species composition and Maori cultural aspects add distinctive elements not found elsewhere (for instance in the Hawaiian Volcanoes).

### 3. INTEGRITY

Within New Zealand's National Park there are high standards of legislation, staffing and management planning. The park is well protected and managed and enjoys a high level of public support. By legislation, the Ngati Tuwharetoa tribe is guaranteed participation in policymaking and management planning. There are serious problems with introduced plants (exotic heather and contorta pine) and lesser problems with introduced animals and control programmes attempting to deal with these have been cut back due to reduced budgets. The man-made developments in the park (skifields and attendant facilities) are restricted to a specified area amounting to almost 10% of Mt. Ruapehu or 3% of the entire park. The revised management plan addresses the issue of ski area expansion and rehabilitation of other disturbed areas.

### 4. ADDITIONAL COMMENTS

The park has important historical and cultural values which complement the natural features although the latter appear more visible and dominant and the centennial of the park in 1987 saw this reinforced with Maori ceremonial and dedication of cultural exhibits in the park's new visitor centre. Built in traditional Maori style, this reflects management's efforts to reinforce the cultural dimensions of the park. The evaluation by ICOMOS on the cultural component will outline these values and provide additional rationale for assessing the site. It is recognised, however, that results of the World Heritage Committee's 1987 request for a theme study on the cultural values of the Pacific are not yet available.

### 5. EVALUATION

With its volcanic cones, lakes and glacier, Tongariro is certainly the most spectacular volcanic site in the Southwest Pacific. Its scenic aspects merit its inclusion on the World Heritage List on Criteria (iii) exceptional natural beauty. It also meets criteria (ii) as an outstanding site for on-going geological processes. Tongariro is important to several branches of the physical sciences (e.g. seismology, geology, geochemistry, and pedology) as sites for teaching and research. It is also important for botanists and zoologists as a habitat for threatened and rare species and for study of the effects of invasive plants and animals. The Maori cultural aspects add further to its significance and reinforce its natural values.

On volcanological grounds, Tongariro's case for World Heritage status is based on three main features. First, it is the most frequently active composite volcano in the world. This activity allows observation of volcanic processes in action and the park is thus an ideal natural laboratory. Second, the crater lake on Ruapehu is unique due to its high frequency of eruption and its glacial setting. It is one of two crater lakes (together with Kelut in Java) regarded as classic case studies of interaction of magma and lake water which often produce lahars (fluid mixtures of volcanic debris and water).

Finally, Tongariro contains deposits from the most powerful volcanic eruption ever known at nearby Lake Taupo. The park protects these deposits for scientific research on this dramatic event of 1800 years ago.

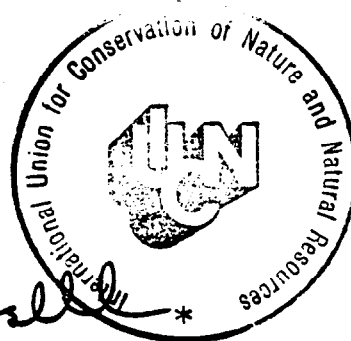
During a field mission to the area in August 1987 by several members of CNPPA, strong concern was expressed on two aspects of management of the area that relate to conditions of integrity:

- a) The extent of the ski development on Mt. Ruapehu, the current plans for expansion, and the impact of these developments on cultural values and "image" of the park. This is compounded by new proposals for slope grooming and snowmaking which would have substantial impacts on scenic values and stream hydrology. It has been suggested that the ski fields of Tongariro would be very susceptible to effects of global warming which would require an upward movement of skiing activity.
- b) The extent to which the cultural values of the park are given prominence in the new management plan and the level of involvement by the local Maori people.

In the preparation of the new management plan for the park, both these issues have been resolved in a manner that protects the natural values of the park and enhances the cultural and spiritual values associated with the Maori people. Skifield development is constrained within specific zones which have detailed plans and measures to place limits on their expansion and operation. A management goal to promote appreciation of cultural values has been added and extensive discussions with the Maori Trust Board have resulted in a plan that better reflects their concerns and traditions.

#### 6. RECOMMENDATIONS

The new management plan for Tongariro adequately covers the concerns of the Bureau expressed in 1987. The park should now be inscribed on the World Heritage List. The Committee may wish to commend the New Zealand authorities for recognising the need to limit inappropriate recreational development and their efforts to strengthen the appreciation of the cultural values of Tongariro in the new management plan.



## NEW ZEALAND-Tongariro National Park

NEW ZEALAND

NAME Tongariro National Park

IUCN MANAGEMENT CATEGORY II (National Park)  
X (World Heritage; criteria ii and iii)

BIOGEOGRAPHICAL PROVINCE 7.01.02 (Neozealandia)

GEOGRAPHICAL LOCATION Situated in the Tongariro and Wanganui regions in the middle of North Island, on the central North Island volcanic plateau. Lake Taupo lies a few kilometres to the north-east and the nearest towns are Turangi, Waiouru and Ohakune. Auckland is some 330km to the north-east and Wellington is about 320km to the south-west, by road, respectively. The boundary encircles the Ruapehu, Ngauruhoe and Tongariro mountain massif at an altitude of 500-1,550m. The north island main trunk railway to the east and the National Park-Rangipo road to the north and north-east delimit the park. An outlier, 3km north of the main park area and separated from it by Lake Rotoaira, includes Lake Rotopounamu, Mount Pihanga and Mount Kakaramea. 38°58'-39°25'S, 175°22'-175°48'E

DATE AND HISTORY OF ESTABLISHMENT Established on 23 September 1887 by deed of gift when the Paramount Chief Te Heuheu Tukino of the Ngati Tuwharetoa people gave 2,630ha of the central volcano area to the government. The summits of Tongariro, Ngauruhoe and Ruapehu were constituted as the nation's first National Park in October 1894 and gazetted in 1907 with an area of 25,213ha. By 1922, when the Tongariro National Park Act was passed, additional land had increased the area to 58,680ha. In 1975 the outlying Pihanga Scenic Reserve (5,129ha) was added, and several other additions from 1925 to 1980 have increased the extent of the park. The current enabling legislation is the National Park Act 1980 (Johnson, 1976; Debreceeny, 1981; Atkinson, 1981; DLS, 1986).

AREA 79,596ha

LAND TENURE Government

ALTITUDE The park rises from 500m to the summit of Mount Ruapehu, at 2,797m, the highest mountain in North Island.

PHYSICAL FEATURES The park lies at the southern end of a discontinuous 2,500km chain of volcanoes which extends north-east into the Pacific Ocean. This chain corresponds with the destructive, orogenous subduction of the Pacific Oceanic plate beneath the Indian-Australian continental plate. The volcanoes in the park, which are predominantly andesitic in composition, fall into two groups on the basis of location, activity and size. Kakaramea, Tihia and Pihanga volcanoes and their associated vents, domes, cones and craters form the northern group. These lie on a 10km north-west to south-east axis and have not been active for between 20,000 and 230,000 years. Glacial activity 100,000-14,000 years ago has rounded the profiles

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of this group. The active group extends about 20km along a south-west to north-east axis, with a width of some 10km and comprises **Tongariro** (1,968m), **Ngauruhoe** (2,290m) and **Ruapehu** (2,797m) volcanoes, the three great volcanic mountains of central North Island. The **Tongariro** complex comprises recent cones, craters, explosion pits, lava flows and lakes superimposed on older volcanic features (Williams, 1985). Two kilometres to the south lies Mount Ngauruhoe, a 2,290m composite andesite cone of interleaved pyroclastic material and lava. Fumaroles in the summit crater frequently discharge hot gas and steam, and the cone, which may be as little as 2,500 years old, is still building. Violent ash eruptions usually occur at nine year intervals whilst more progressive 'strombolian' lava fountaining occurred in 1954, creating a 60m high cone on the western side of the original 400m-diameter multiple crater. Seven explosion craters, formed by violent contact between rising magma and groundwater, lie directly between Mount Ngauruhoe and the southern Mount Ruapehu massif. The largest two now constitute the Upper and Lower Tama lakes. The south-east of the park is dominated by Mount Ruapehu, which rises to a 350ha complex of ridges, peaks, cones and active and inactive vents. Volcanic activity commenced approximately 500,000 years ago and tephra deposits indicate a peak of activity 10,000-14,000 years ago (Williams, 1985; Debreceeny, 1981). The current active vent lies beneath Crater Lake at an elevation of 2550m on Mount Ruapehu. This has a diameter of 500m, a depth of more than 180m and a temperature of 20-40°C. The water has a pH of 0.8-1.5 and is rich in dissolved minerals; consequently the upper reaches of the Whangaehu outflow are devoid of fish and most invertebrates. Minor hydrothermal eruptions in the lake are not uncommon, whilst more major events such as those in June 1969 and April 1975, may lead to destructive mudflows (Williams, 1985).

In addition to these major features, the park contains other extinct volcanoes, lava and glacial deposits and a variety of springs. Freeze-thaw and freeze-heave action and major radial drainage systems feeding the **Tongariro**, **Wanganui** and **Whangaehu** rivers has led to rapid erosion of the unconsolidated ash and rock of **Tongariro** and **Ruapehu** mountains. Extensive glaciation up to 14,700 years ago eroded both **Tongariro** and **Ruapehu** and glacial valleys with terminal and lateral moraine formations are present. Glaciers are currently restricted to Mount Ruapehu and after several decades of retreat all are less than 1km in length. The steep upper slopes of the major volcanoes comprise lava flows interbedded with ash and coarser volcanic debris, whilst on gentler slopes both lava and mudflows are covered by ash. Marine mudstone and sandstone of Miocene-Pliocene origin form two hilly areas in the west. Rhyolitic pumice deposits, a legacy of the massive Taupo eruption about 1,800 years ago, occur in the northern and eastern two-thirds of the park at depths frequently in excess of 30cm. The eruption destroyed much of the forest cover in the park. Dessicating westerly and southerly winds have inhibited vegetation development to the east of Mount Ruapehu and a largely barren desert-like environment of dark reddish-brown sand and ash has formed (Johnson, 1976). Soils are generally weathered andesitic ash, being dark sandy loams and loamy sands to the west; drainage is frequently poor. Above 1,100m ash, gravel and unconsolidated stonefields are predominant. With the exception of some recent alluvial flats, soil fertility throughout the park is low (Atkinson,

1981).

**CLIMATE** The north-east to south-west orientation of the mountains results in most precipitation from the prevailing westerly winds falling on the windward side of the park. The north and west has 1800-3500mm annual rainfall, whilst in the south and east there may only be 1100mm per annum. Above 1,200m altitude annual precipitation probably exceeds 3500mm. The 1931-1960 mean annual temperature at 600m was 9.6°C-10.1°C and 7.1°C at 1,100m. Absolute minimum and maximum temperatures recorded are -10°C and 25°C, respectively. Ground frosts occur throughout the year, particularly in winter, and above 2,000m there are permanent snowfields and ice (Atkinson, 1981; Debreceeny, 1981).

**VEGETATION** Vegetation in the park is influenced by altitude, occurrence of Taupo pumice, burning, drainage and erosion (Atkinson, 1981) as well as substrate instability, grazing by herbivores and rainfall distribution. Habitats are diverse, ranging from remnants of rain forest to nearly barren icefields. From the lowest altitudes to 1,000m in the west and north, about

3,000ha of once nation-wide mixed Podocarp-broadleaf rain forest occurs. This is dominated by Podocarpus hallii, P. dacrydioides, Weinmannia racemosa, Libocedrus bidwillii and there are numerous epiphytic ferns, orchids and fungi. At higher altitudes beech forest occurs with red beech Nothofagus fusca, silver beech N. menziesii and mountain beech N. solandri var cliffortioides in pure stands totalling over 5,000ha, or with L. bidwillii from 750m to 1,530m and covering 12,730ha. Widespread death of mature beech has occurred on Ruapehu, possibly due to the pathogenic fungus Sporothrix sp., spread by the pinhole beetle Platypus sp. but regeneration is occurring. Scrublands featuring Leptospermum ericoides, L. scoparium, Phyllocladus aspleniifolius, Dracophyllum longifolium, Rhacomitrium lanuginosum introduced heather Calluna vulgaris, dwarf beech, podocarps and others, in a variety of associations, cover some 9,500ha. Tussock shrubland and tussockland cover extensive areas in the north-west and around the Mount Ruapehu massif at about 1,200-1,500m. Dominant species include Chionochloa rubra, inaka Dracophyllum longifolium, D. recurvum, Empodisma minus, Schoenus pauciflorus, heather and the grasses Festuca novaezealandiae and Poa colensoi. These formations cover some 15,000ha and are generally the highest communities with complete ground cover. The highest levels in the park are dominated by gravelfields and stonefields which are very unstable and characterised by cycles of vegetation build-up and breakdown. Typical species, covering about 16,500ha are D. recurvum, Podocarpus nivalis, Gaultheria colensoi, Rytidosperma setifolium, P. colensoi and Raoulia albosericea, some of which occur in the Rangipo desert. An additional 10,350ha, from 1,700m to 2,020m, supports isolated individuals of parahebes Parahebe sp., gentian Gentiana gellidifolia, buttercup and others although above 2,000m the only obvious plants are crustose lichens. A number of other formations exist, although often limited in area, including shrub, grass, bracken, sedge, rush and moss communities (Atkinson, 1981). A species list and vegetation map is given in Atkinson (1981).

**FAUNA** The vertebrate fauna is restricted mainly to birds although native

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mammals are represented by short-tailed bat Mystacina tuberculata and long-tailed bat Chalinolobus tuberculatus. More than 56 bird species have been recorded in the park including brown kiwi Apteryx australis, kaka Nestor meridionalis, blue duck Hymenolaimus malacorhynchus and North Island fern bird Bowdleria punctata vealeae. All the above species are considered by New Zealand authorities to be within IUCN's vulnerable category (DLS, 1986; Johnson, 1976). Banded dotterel Charadrius bicinctus and New Zealand falcon Falco novaezeelandiae are also present. The native fauna, however, has been seriously depleted by species introduced prior to 1922. These include rat Rattus rattus, stoat Mustela erminea and cat Felis catus as predators, and herbivores such as rabbit Oryctolagus cuniculus, hare Lepus sp., brush-tailed possum Trichosurus vulpecula, and red deer Cervus elaphus. Although much effort has been devoted to eradicating exotics, they continue to pose a threat to native flora and fauna (Atkinson, 1981; Johnson, 1976).

CULTURAL HERITAGE The area has been occupied by Maoris since they first arrived from Polynesia and ethnic mythology identifies the mountains in the park with 'tupuna' or god-like ancestors. Until the land was given to the nation in 1887, the area was occupied by the Tu Wharetoa tribe. Early European attempts to settle in the area and introduce sheep farming commenced in 1856. However, due to economic and agricultural difficulties, these activities ceased by the 1920s (Debreceeny, 1981).

LOCAL HUMAN POPULATION With the exception of Whakapapa village, which largely comprises tourist facilities, there are no permanent settlements within the park. The village is the subject of Volume Three of the current management plan (DoC, 1990c).

VISITORS AND VISITOR FACILITIES The annual number of visits to the park increased from an estimated 90,000 in 1960 to over 500,000 in 1975 and 800,000 more recently (DoC, 1990a). Overseas visitors contribute only 3% to the number of visitors, and there are two distinct peak seasons: ski-ing from July to late October and a mid-December to mid-February summer vacation period. Accommodation is available at Whakapapa, Iwikau and Turoa villages and at camp sites in the park. Rural highways entirely surround the park and a number of roads and tracks enter it. Foot trails give access to several areas, including the Mount Tongariro complex, and encircle both Ngauruhoe and Ruapehu massifs. Major recreational activities include walking, climbing, hunting, fishing, and ski-ing, for which more than a dozen chairlifts and a number of mountain huts are provided. In excess of 300,000 people per annum use the Whakapapa skifield (Williams, 1985). Visitors to the Whakapapa ski-field spent \$7.7 million within the region during the 11 week 1985 ski season, and the park in general is a significant contribution to the local economy. The park headquarters at Whakapapa has an information centre and guided walks are given (Johnson, 1976; Debreceeny, 1981).

SCIENTIFIC RESEARCH AND FACILITIES The first comprehensive botanical survey was carried out in 1908 (Cockayne, 1908). A more recent survey was conducted between 1960 and 1966 (Atkinson, 1981) and a popular account of the plant ecology of the park has been published (Gabites, 1986). Research

has also been undertaken on climate, fauna, ecology, landscape development and the role of pathogenic fungi in the dieback of beech Nothofagus spp. The Department of Scientific and Industrial Research, which has an observatory at Whakapapa Village, conducts regular geophysical, deformational and chemical studies on the volcanoes. In addition, seismic and magnetic activity and atmospheric shock waves are monitored continuously for eruption prediction. A summary of volcanic observations is compiled annually by the New Zealand Geological Survey and published in the New Zealand Volcanological Record (Williams, 1985). Bibliographies are given in Debreceeny, (1981), Atkinson (1981), TNPB (1986), Williams (1985) and more comprehensively in Turnbull (1979).

CONSERVATION VALUE The park is of significance to the central North Island as an ecological, geological, recreational and economic resource. At the national level, ecological and recreational values are very important, while the economic values are of significance in the region and the Tongariro locality (DoC, 1990a). The park meets criteria (ii) for inclusion on the World Heritage List as an outstanding site for on-going geological processes, and criteria (iii) on the basis of exceptional natural beauty (IUCN Technical Evaluation).

CONSERVATION MANAGEMENT The 1977 management plan, which has been revised, was prepared by the Tongariro National Parks and Reserves Board and approved by the National Parks and Reserves Authority. The revised management plan (DoC, 1990a, b and c), comprising three volumes, states the following two goals: to preserve and protect for present and future generations the outstanding natural scenery, the scientifically important features and the indigenous natural resources which all contribute to make Tongariro National Park a place of national and international significance; and to promote an understanding of and appreciation for nature and natural evolutionary processes and the cultural and historic values of Tongariro National Park, as well as providing opportunities for visitors to enjoy the park in a manner consistent with national park principles. Six subsidiary objectives are stated. First, to manage the park so that the present comprehensive range of indigenous ecosystems and natural processes continues. Second, to recognise and maintain the cultural, spiritual and inspirational heritage of the mountains in the park, and to recognise the spiritual and cultural significance of the park to the Maori people and to consult with and give full consideration to the views of the appropriate iwi authorities. Third, to encourage such public use and enjoyment of the park as is consistent with the preservation of the natural features and historic values of the park. Fourth, to enhance, through the provision of facilities and services for the benefit of park visitors, an appreciation and awareness of park values and of environmental and historical conservation and cultural values. Fifth, to ensure that conflicts between competing uses of the natural features and facilities of the park are minimised and to concentrate development as far as possible either outside the park or in the proposed amenities areas. Sixth, to provide opportunities to meet recreation needs by carefully controlled development consistent with national park principles. Detailed management policies cover a wide range of topics in the broad categories of preservation, management, public use and development. Volume Two of the

management plan covers ski-field management (DoC, 1990b) and Volume Three covers the management of Whakapapa village (DoC, 1990c).

The 1980 National Parks Act provides much of the protective, legal and administrative mechanisms for the park, although other statutes, and therefore a number of agencies, totalling 23, have an impact on the park. The Regional Conservator of the Department of Conservation has primary responsibility for the park. The Department is required to administer and manage the park in accordance with the current management plan, any bylaws for the park, the provisions of the National Parks and Reserves Authority's General Policy for national parks and the National Parks Act 1980. The management plan was prepared by the Tongariro-Taupo National Parks and Reserves Board following public input and approved by the National Parks and Reserves Authority (DoC, 1990a). Maori interests are represented by the Paramount Chief of the Tu Wharetoa tribe who has a permanent seat on the Tongariro/Taupo National Parks and Reserves Board.

The park is zoned into natural environment, two wilderness zones, three service areas and some 18 sites of unique biological or geological interest (TNPB, 1979). Ski-field development has been restricted by zoning the alpine regions of Mount Ruapehu and the summits of Mounts Tongariro and Ngauruhoe as 'pristine areas'. Developments are prohibited above 1,500m in the Tongariro and Ngauruhoe area, and generally above 2,250m on Ruapehu. The boundaries of the Whakapapa and Turoa ski-fields currently attain 2,325m and 2,280m, respectively. An increase in the upper limit of the Whakapapa fields to 2,365m may be permitted if a full and favourable environmental impact assessment is carried out. However, in general, the pristine areas will be managed to avoid development and to conserve natural, cultural and historic values. Licensed sports hunting of deer and possums is permitted and programmes to eradicate lodgepole pine are undertaken (DoC, 1990a; Johnson, 1976; Debreceeny, 1981).

MANAGEMENT CONSTRAINTS Extermination of introduced flora and fauna is a requirement of the National Parks Act 1980 (Section 4(2)(b)). However, given, limited resources, control rather than eradication is the current management approach (DoC, 1990a). The relative paucity of vertebrates stems from the nation-wide problem of introduced species. Furthermore, native flora have been reduced or eliminated by exotic herbivores such as red deer and possum (Atkinson, 1981). Invasive lodgepole pine Pinus contorta threatened to convert native communities into forest and was a particular problem in the eastern Rangipo desert area, but management measures have controlled and in some areas eradicated the pine. Nevertheless, the presence of seed sources in neighbouring commercial lodgepole pine plantations continues to pose a threat to the park. Exotic heather has also become established in the park and is a potential threat presently under study (Johnson, 1976; Atkinson, 1981). Volcanic activity, and especially mudslides, can endanger both wildlife and visitors and the park has witnessed major natural disasters (Williams, 1985). Concern over the impact of ski-field development and associated infrastructure have been addressed in the management plan which constrains ski fields within specific zones and has detailed policies covering their operation (DoC, 1990c).

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STAFF Twelve rangers, 50 waged workers and 5 administrative staff, supplemented by seasonal workers and other departmental staff, with a total of more than 110 during peak seasons

BUDGET The park accounts for about 80% of the Department of Conservation's Turangi district budget. In 1987/88 the district had a Government grant of NZ\$2.3 million and also recovered NZ\$800,000 in fees etc. from users. In 1988/89 the district received a grant of only NZ\$900,000 and was expected to recover NZ\$1.2 million from fees etc. Budget provisions for 1989/90 are not known.

#### LOCAL ADDRESSES

Regional Conservator, Department of Conservation, Turangi  
National Parks and Reserves Authority, PO Box 2593, Wellington  
Tongariro-Taupo National Parks and Reserves Board, PO Box 5014, Wellington

#### REFERENCES

- Atkinson, I.A.E. (1981). Vegetation map of Tongariro National Park, North Island, New Zealand. Scale 1:50,000. Wellington, New Zealand  
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DATE April 1987, revised March 1989, October 1990

DOCUMENT 0206W

Infobase produced by WCMC, January 1992

**Identification**

<u>Nomination</u>	Tongariro National Park
<u>Location</u>	Tongariro and Wanganui Regions, North Island
<u>State Party</u>	New Zealand (Aotearoa)
<u>Date</u>	26 July 1993

**Justification by State Party**

The following attributes of the Tongariro National Park demonstrate its required integrity as a universally outstanding example of a culturally associative landscape:

- The power of the unbroken associations of the Ngati Tuwharetoa iwi (Maori tribe) with the mountains since the landing of the Arawa canoe: the strong association is both a physical (Pacific "Ring of Fire") and a cultural (Ngatoroirangi) connection to their Pacific origins in the Hawaikis. The cultural links are clearly demonstrated in the oral history which is still a pervasive force for Ngati Tuwharetoa. The peaks are spoken of with the same reverence and feeling as tribal ancestors, ensuring that the connection is one of spirituality as well as culture.
- The linkage of cultural identity with the mountains: Tongariro, Ngati Tuwharetoa, and Te Heuheu are inextricably linked with the tribal pepeha (statement of connection to a tribe and an area) recited at any occasion hosted by the Ngati Tuwharetoa iwi.
- The cultural significance of the gift: Horonuku's gift in 1887 formed the nucleus of the first national park in New Zealand, and only the fourth in the world. Significantly, this gift was the first from an indigenous people. The spirit of this gift fostered the formation of the national park network in New Zealand, and thus has safeguarded some of the most outstanding landscapes in the world from development.
- The high recognition, throughout New Zealand, of the rich cultural tapestry woven between Ngati Tuwharetoa and the Park.

The outstanding natural values have already been recognized by World Heritage listing. The associative cultural values for Ngati Tuwharetoa and Te Atihaunui a Paparangi are inseparable from the natural qualities.



## History and Description

### History

The Maori are a Polynesian people who reached Aotearoa (New Zealand) before AD 1300 (and possibly as early as AD 600-800). They came as settlers in large double-hulled canoes - men, women, and children, with their plants and domestic animals. One of the most important was the Arawa canoe, which made its first landfall at Whangaparaoa on North Island's East Cape and then travelled to Maketu in the Bay of Plenty.

The descendants of that canoe still hold authority over the land as far south as the Tongariro National Park. The people of the Park - Ngati Tuwharetoa - identify with Ngatoroirangi, the navigator of the Arawa canoe and legendary bringer of fire to Tongariro.

Mananui To Heuheu, paramount chief of Ngati Tuwharetoa, was one of the few Maori chiefs who refused to sign the Treaty of Waitangi in 1840 and thereby cede sovereignty to the British Crown. His son Horonuku, who succeeded Mananui in 1846 when he was buried by an avalanche on the mountain and who became known as Te Heuheu Tukino in 1862, came under severe pressure from land-hungry European settlers. When faced with the dilemma of having to divide his land following a dispute with the Maniapoto iwi or lose it to the Land Court, he took the advice of his son-in-law Lawrence Grace to make it "a tapu place of the Crown, a sacred place under the mana of the Queen". With the approval of the Tuwharetoa chiefs the land was handed over to the Crown as a gift in September 1887.

The original deed of gift made an area of 2640 ha consisting of three small circles around the main peaks into the first national park in New Zealand, and the fourth in the world. This was too small for effective management and over the years that followed large-scale purchases of land were made by the Crown, so that when the Tongariro National Park Act was passed in 1894 its area had increased to some 25,000 ha. A survey report in 1904 recommended that the area should be more than doubled, and today the Park's boundaries enclose over 79,000 ha.

### Oral history

Maori culture has a rich oral history in which the connections between man and the landscape play a central role. The formation of the land, of the mountains' violent love for Pihanga (a "female" volcano), and of how fire came to the central North Island are the themes of some of the best known Maori stories. In Maori mythology the first children of Papatuanuku (Earth Mother) and Ranginui (Sky Father) were the spectacular mountains of Aotearoa, and thus linked closely with the last of their offspring, human beings.

The legendary ancestor of Ngati Tuwharetoa, Ngatoroirangi, was priest, navigator of the Arawa great canoe, and explorer. His first expedition took him to the top of Mount Tauhara from where he was able to see the snowclad summit of Tongariro, which

he resolved to climb and claim for his people. That expedition is chronicled in a celebrated epic. When he finally reached the summit of Tongariro, nearly overcome with cold and exhaustion, Ngatoroirangi called upon his ancestral spirits and upon his sisters in far-distant Hawaiki to send him fire. They heard his appeal and with the fire-gods Pupu and Te Hoata sent the fire from Hawaiki to revive him. Its fiery course is marked by mud-pools, geysers, steam-pits, and hot streams stretching across Aotearoa from the original landfall in the Bay of Plenty and culminating in the volcanoes of Tongariro and Ngauruhoe.

For the Ngati Tuwharetoa iwi this is a living landscape with its own mauri (life-force). With its active and dormant volcanoes and thermal pools it is, moreover, a direct genealogical link with their historical homeland in Hawaiki and with their landing place in the Bay of Plenty.

### Description

The heart of the 79,000 ha Tongariro National Park and its cultural focus is admirably described in his 1907 survey report by Leonard Cockayne:

The great volcanoes, Ruapehu, Tongariro and Ngauruhoe differed much in character. Ruapehu was a magnificent mountain mass, with glaciers filling the gullies. Its crater, a mile in diameter, was filled with crevassed ice and contained a hot lake... Ngauruhoe was a perfect cone in shape, and was quite without vegetation from base to summit. The crater contained towards its centre a mud volcano, which not very long ago covered the sides of the mountain for a thousand feet with hot mud... Tongariro was not one single volcano, but consists of a number of craters, some long since inactive and some still quite ready to eject ashes, whilst steam and sulphurous vapour were continually given off from them... Surely such a park should be one of the most prized possessions in our country.

## **Management and Protection**

### Legal status

The entire Tongariro National Park is owned by the Crown (ie the Government and people of New Zealand). It is designated a National Park under the terms of the National Parks Act 1980. The Park is public land and is freely accessible to the public, subject to any restrictions which may be required to ensure that it is maintained in its natural state.

### Management

The national Department of Conservation is responsible for overall management of the Park's natural and historic resources. Management decisions are made according to statutory responsibilities, with input from the New Zealand Conservation Authority and the Tongariro-Taupo Conservation Board. Direct administration

of the Park is carried out by the Regional Conservancy, based in Turangi.

The Tongariro-Taupo Conservation Board was formed in 1990 as part of a nation-wide network providing for citizen input to conservation management and advice. Its twelve members include five Maori, one of whom is Sir Hepi Te Heuheu, lineal descendant of Te Heuheu Tukino.

The National Parks Act 1980 requires the production of a ten-year management plan for each Park. The Tongariro plan provides for the protection in perpetuity of the Park's intrinsic worth and for public access and enjoyment. Cultural integrity is preserved in the large degree of unmodified areas.

### **Conservation and authenticity**

Since its creation in 1887 the Tongariro National Park has been sympathetically managed, and as a result the natural landscape is largely untouched. The extent of the ski-fields is rigorously controlled at 3% of the total area and they do not rise above a level at which the cultural values might be jeopardized. The displays at the Whakapapa Village Visitors Centre, with the planning of which the two iwi, Ngati Tuwharetoa and Atihauni a Paparangi, were closely associated, explains the cultural and natural significance of the Park and helps to ensure respect for its integrity and conservation.

### **Evaluation**

#### Qualities

The cultural qualities of Tongariro are intimately linked with its natural qualities, which were recognized by its inscription on the World Heritage List in 1990 as a natural property under criteria ii and iii.

In the case of Tongariro the natural landscape plays a fundamental role through oral tradition in defining and confirming the cultural identity of the Maori people: the two are indissolubly linked. A basic sense of continuity through tupuna (ancestors) is manifested in the form of profound reverence for the peaks. The natural beauty of Tongariro is the spiritual and historical centre of Maori culture.

#### Additional comments

Tongariro is the first property to be nominated for consideration under the revised guidelines relating to cultural landscapes. It is relevant to mention here that it was one of the key case-studies considered by the expert group on cultural landscapes that met at La Petite Pierre in October 1992, and that it was taken as a model for defining the category of associative cultural landscape, the inclusion of which was "justifiable by virtue of the powerful religious, artistic or cultural associ-

ations of the natural element rather than material cultural evidence, which may be insignificant or even absent".

### **Recommendation**

That this property be inscribed on the World Heritage List on the basis of criterion vi:

- Criterion vi The mountains that lie at the heart of the Tongariro National Park are of great cultural and religious significance to the Maori people and are potent symbols of the fundamental spiritual connections between this human community and its natural environment.

ICOMOS, October 1993

DESIGNATION POUR LA LISTE DU PATRIMOINE MONDIAL  
RESUME PREPARE PAR L'UICN

421: PARC NATIONAL DE TONGARIRO (NOUVELLE-ZELANDE)

Résumé préparé par l'UICN (août 1990) d'après la désignation d'origine soumise par le gouvernement de la Nouvelle-Zélande. L'original et tous les documents présentés à l'appui de cette désignation seront disponibles pour consultation aux réunions du bureau et du comité.

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1. SITUATION

Situé au milieu de l'île du Nord, sur le plateau volcanique central. La limite du parc encercle les massifs montagneux de Ruapehu, Ngauruhoe et Tongariro, entre 500m et 1550m d'altitude. En dehors du parc principal, à 3 km au nord, et séparée de lui par le lac Rotoaira, se trouve une région protégée annexe comprenant le lac Rotopounamu, le mont Pihanga et le mont Kakaramea. La région a une superficie de 79 596 ha.

2. DONNEES JURIDIQUES

Le noyau du parc fut créé le 23 septembre 1887 lorsque le chef du peuple Ngati Tuwharetoa, Te Heuheu Tukino, fit don de 2630 ha de la région du volcan central au gouvernement. La région devint officiellement le premier parc national du pays en 1894, avec une superficie de 25 213 ha. En 1922, au moment du vote de la loi sur le Parc national de Tongariro, sa superficie passa à 58 680 ha. En 1975, la réserve voisine de Pihanga (5129 ha) y fut ajoutée, et d'autres additions augmentèrent encore la superficie du parc en 1953, puis en 1962. Le parc relève actuellement de la loi de 1980 sur les Parcs nationaux (National Park Act).

3. IDENTIFICATION

Le parc se situe à l'extrémité sud d'une chaîne discontinue de volcans, longue de 2500 km, s'étendant au nord-est jusqu'au Pacifique. Les volcans du parc, de composition essentiellement andésitique, sont classés en deux groupes selon l'emplacement, l'activité et la taille. Kakaramea, Tihia et Pihanga, ainsi que les cheminées, dômes, cônes et cratères, forment le groupe nord. Ils se trouvent sur une ligne de 10 km, orientée du nord-ouest au sud-est, et sont inactifs depuis 20 000 à 230 000 ans. Le groupe des volcans en activité s'étend sur une vingtaine de kilomètres, sur un axe de direction sud-ouest, nord-est, d'une largeur de 10 km; il comprend trois volcans, le Tongariro, le Ngauruhoe et le Ruapehu. Le complexe du Tongariro présente des traits récents - cônes, cratères, puits d'explosion, coulées de lave et lacs - qui viennent se surposer à d'autres plus anciens. Outre ces traits géographiques importants, le parc contient d'autres volcans éteints, des dépôts de lave ou glaciaires, et des sources. La longue glaciation d'il y a 14 700 ans a érodé le Tongariro et le Ruapehu, qui présentent des vallées glaciaires avec des moraines latérales et frontales. Des glaciers subsistent sur le mont Ruapehu, mais, en recul depuis plusieurs décennies, ils n'ont plus qu'un kilomètre de long.

Les biotopes sont très divers, allant de lambeaux de forêts humides à des champs de glace nus. A l'ouest et au nord, jusqu'à 1000 m d'altitude, on trouve encore près de 3000 ha de forêt humide mixte de podocarpes à larges feuilles, jadis largement répandues. A une altitude supérieure, on trouve des forêts de hêtres. La brousse recouvre quelque 9500 ha. Des formations de touffes herbeuses couvrent de vastes régions dans le nord-ouest et autour du mont Ruapehu, à une altitude de 1200 à 1500 m. Aux altitudes supérieures, le paysage est dominé par des champs de pierre et de gravier. La faune est essentiellement avienne, mais l'on trouve également la chauve-souris à queue courte et la chauve-souris à queue longue. Plus de 56 espèces d'oiseaux ont été dénombrées dans le parc, dont le kiwi brun.

Les Maoris sont installés dans la région depuis leur arrivée de Polynésie; dans leur mythologie, les montagnes du parc sont les "tupuna", ancêtres élevés au rang de dieux. Jusqu'à ce qu'il en fut fait don à la nation, en 1887, la région était habitée par la tribu des Tuwharetoa.

#### 4. ETAT DE PRESERVATION/CONSERVATION

Le parc est apprécié pour ses paysages, son importance culturelle, sa diversité écologique en tant qu'aire de reproduction de plusieurs espèces menacées et pour les loisirs. Le parc est géré, selon le plan de gestion de 1990, par le Conseil des réserves et des parcs nationaux de Tongariro. La loi de 1980 sur les parcs nationaux prévoit tous les mécanismes administratifs, juridiques et de protection pour le parc. Le parc comporte deux zones de nature sauvage, deux zones à l'état originel et trois aires d'agrément. Le développement du domaine skiable a été limité et la mise en place d'infrastructures est interdite au-dessus de 1500 mètres, dans les zones de Tongariro et Ngauruhoe, et généralement au-dessus de 2250 mètres sur le Ruapehu. La chasse au cerf et à l'opossum est autorisée et des programmes d'éradication des pins, de la bruyère et des genêts sont en cours. La relative pauvreté de la faune est la conséquence d'un problème d'ampleur nationale - les espèces introduites. De plus, la flore indigène a été réduite ou éliminée par des herbivores introduits, tels que les cerfs, les chèvres et les porcs. Le pin, très envahissant, menace de transformer des communautés indigènes en forêts, et cela pose un problème dans le désert de Rangipo, à l'est.

Environ 800 000 visiteurs fréquentent le parc chaque année, surtout pendant la saison de ski.

#### 5. RAISONS JUSTIFIANT LA DESIGNATION POUR LA LISTE DU PATRIMOINE MONDIAL

Pour justifier la désignation du Parc national de Tongariro en tant que bien du patrimoine mondial, le Gouvernement néo-zélandais a donné les raisons suivantes:

##### a) Bien naturel

- (i) Témoigne de l'évolution géologique de la Terre. Les volcans du parc forment l'extrémité sud-ouest de la chaîne des volcans du Pacifique, axée sur une importante ligne de plaques tectoniques.

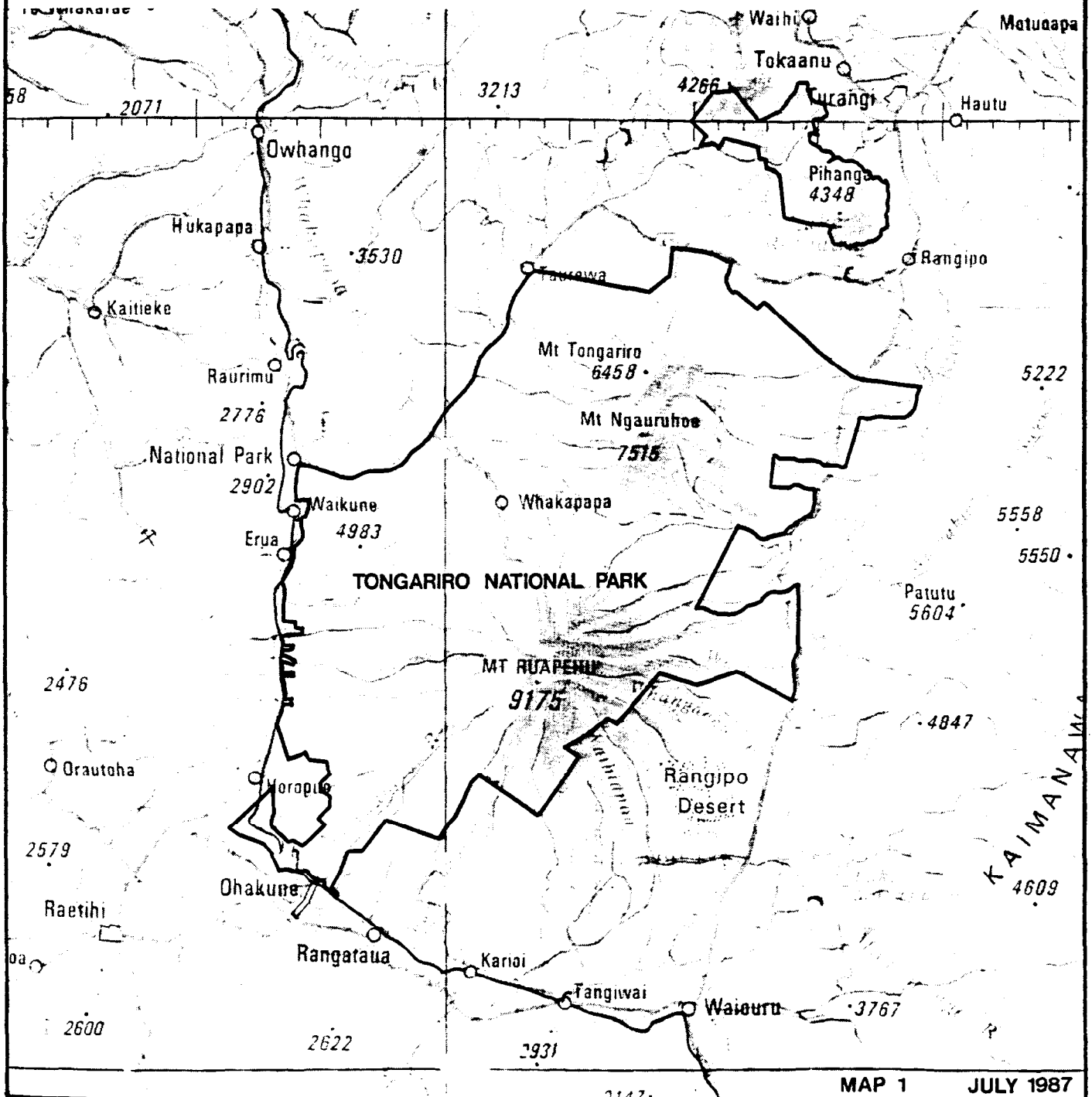
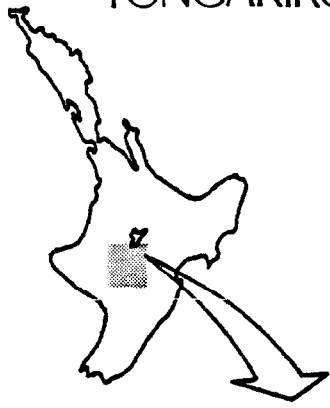
- (ii) Processus géologiques en cours. Les volcans du parc offrent une gamme complète de traits volcaniques. La succession écologique de groupements végétaux présente un intérêt particulier pour la science.
- (iii) Beauté exceptionnelle des paysages et phénomènes naturels remarquables. Les sommets des volcans offrent un panorama grandiose.

b) Bien culturel

Les critères sont évalués par l'ICOMOS.

# TONGARIRO NATIONAL PARK MANAGEMENT PLAN

## LOCALITY PLAN TONGARIRO NATIONAL PARK



MAP 1 JULY 1987



## DESIGNATION POUR LE PATRIMOINE MONDIAL - EVALUATION TECHNIQUE DE L'UICN

### 421 PARC NATIONAL DE TONGARIRO (NOUVELLE-ZELANDE)

#### 1. DOCUMENTATION

- (i) Fiches de données de l'UICN
- (ii) Consultations: D. Pitt, C. Burns, J.W. Cole, D. Given, R. Milne, H. Eidsvik, G. McSweeney, P.H.C. Lucas, K. O'Connor, B. Jefferies, D. Thom, B. Houghton, fonctionnaires gouvernementaux néo-zélandais.
- (iii) Littérature consultée: Tongariro N.P. Management Plan 1990. Département of Conservation, 3 vols.
- (iv) Visite du site: janvier 1986, août 1987

#### 2. COMPARAISON AVEC D'AUTRES AIRES

La province biogéographique néo-zélandaise comporte 145 aires protégées dont certaines sont comprises dans le bien du Sud-Ouest néozélandais désigné au patrimoine mondial. Ces parcs sont situés sur l'île du Sud ("île de jade"); on ne peut les comparer avec Tongariro, situé sur l'île du Nord ("île fumante"), qui a un paysage exclusivement volcanique. Tongariro se distingue comme la région protégée de Nouvelle-Zélande ayant la plus grande diversité de traits volcaniques.

Tongariro se trouve à l'extrémité sud-ouest de la "ceinture de feu" du Pacifique - série de volcans qui fait pratiquement le tour de l'océan Pacifique, et qui inclut le Fuji Yama (Japon), le Krakatoa (Indonésie), les îles Kermadec (Nouvelle-Zélande) et le mont St Helens (Etats-Unis). Le Tongariro se distingue en ce qu'il est intégralement protégé, qu'il est l'un des plus actifs, et qu'il présente une grande diversité de traits volcaniques dans un paysage exceptionnel. On peut établir une distinction entre le bien du patrimoine mondial situé sur l'île Hawaï, qui est un volcan bouclier (plutôt qu'un volcan situé au bord d'un plateau continental). Il est nettement plus grand et plus régulièrement en activité, et fait l'objet d'un programme de recherche plus actif.

Il y a quantité d'autres parcs volcaniques dans le monde, notamment les parcs nationaux de Timanfaya (Espagne), du Kilimandjaro (Tanzanie), de Sangay (Equateur) et de Katmai (Alaska) et des Volcans de Hawaï. Il existe 500 à 600 volcans en activité dans le monde, dont 11 aux Philippines et 77 en Indonésie, mais il est difficile d'en comparer la "valeur", chacun possédant quelque chose d'unique. Il est certain que la variété des espèces que l'on rencontre à Tongariro, et la culture maori sont des éléments distinctifs particuliers que l'on ne retrouve pas ailleurs (volcans de Hawaï, par exemple).

#### 3. INTEGRITE

La qualité de la législation, du personnel et de la gestion des parcs nationaux a un très haut niveau en Nouvelle-Zélande. Le parc est bien

protégé et bien géré; il jouit de la faveur du public. Par législation, les Ngati Tuwharetoa sont assurés de participer aux prises de décision et à la planification de l'aménagement. Il y a de graves problèmes posés par les plantes introduites (bruyères), pins Contorta), et de moins graves posés par les animaux introduits et les programmes mis en oeuvre pour tenter de les résoudre ont été fortement réduits en raison de restrictions budgétaires. La mise en valeur du parc (domaine skiable et locaux destinés aux gardiens) est limitée à une zone précise qui représente environ 10% du mont Ruapehu, ou 3% de la superficie totale du parc. Le plan de gestion révisé traite le problème de l'expansion du domaine skiable et de la restauration d'autres régions perturbées.

#### 4. COMMENTAIRES ADDITIONNELS

Le parc présente un grand intérêt historique et culturel qui vient compléter sa valeur naturelle, bien que celle-ci semble dominer. Le centenaire du parc, en 1987, a renforcé l'intérêt historique et culturel par des cérémonies maori et la présentation d'expositions culturelles au nouveau centre d'accueil. Construit dans le style maori traditionnel, il reflète les efforts déployés par la direction dans le sens d'un renforcement de la dimension culturelle du parc. L'évaluation préparée par l'ICOMOS soulignera cet intérêt et fournira de nouvelles bases d'évaluation du site. Il a cependant été reconnu que les résultats de l'étude thématique sur les biens culturels du Pacifique, demandée par le Comité du patrimoine mondial en 1987, ne sont pas encore connus.

#### 5. EVALUATION

Avec ses cônes volcaniques, ses lacs et ses glaciers, Tongariro est sans conteste le site volcanique le plus spectaculaire du Pacifique Sud-Ouest. Son paysage le rend digne de figurer sur la Liste du Patrimoine mondial, sur la base du Critère (iii) - beauté naturelle exceptionnelle. Il remplit également le Critère (ii) - de site remarquable pour ses processus géologiques en cours. Tongariro est un site important pour diverses disciplines scientifiques (sismologie, géologie, géochimie, pédologie), ainsi que pour la recherche et l'enseignement. Il est important pour les botanistes et les zoologues, en tant qu'habitat d'espèces rares ou menacées et pour l'étude de l'impact des plantes et des animaux envahisseurs. Les aspects culturels liés à la présence des Maoris ajoutent encore à son importance et renforcent sa valeur exceptionnelle.

Du point de vue volcanique, la désignation de Tongariro au patrimoine mondial est justifiée par trois facteurs. Premièrement, c'est le volcan composite le plus actif du monde et cette activité permet d'observer des processus volcaniques en action. Le parc est donc un laboratoire naturel idéal. Deuxièmement, le lac de cratère sur le Ruapehu est unique, en raison de la fréquence élevée des éruptions et de l'environnement glaciaire. C'est l'un des deux lacs de cratère (avec Kelut, à Java) considérés comme des sites d'étude classiques de l'interaction entre le magma et l'eau lacustre produisant souvent des coulées de boue (mixture fluide de débris volcaniques et d'eau). Enfin, Tongariro contient des dépôts de la plus forte explosion volcanique qui se soit jamais produite, au lac Taupo tout proche. Ces vestiges d'un événement survenu il y a 1800 ans sont préservés dans le parc et servent à la recherche scientifique.

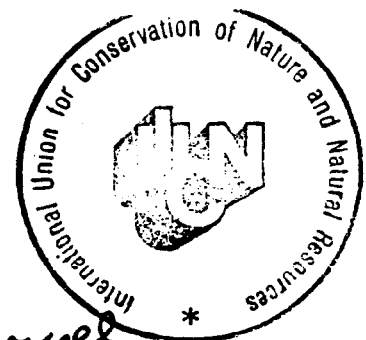
Au cours d'une mission sur le terrain en août 1987, à laquelle participaient plusieurs membres de la CPNAP, de vives inquiétudes ont été exprimées par rapport à deux aspects de la gestion du site, liés à son intégrité:

- a) L'étendue de l'aménagement du domaine skiable sur le mont Ruapehu, les plans d'expansion prévus dans ce domaine et la répercussion de ce développement sur les valeurs culturelles et "l'image" du parc. Ce développement comporte de nouvelles propositions d'entretien des pistes et de production de neige artificielle, qui auraient un impact considérable sur le paysage et sur l'hydrologie fluviale. Il a été suggéré que le domaine skiable de Tongariro serait très vulnérable aux effets du réchauffement climatique mondial, ce qui exigerait un déplacement du domaine skiable vers des altitudes plus élevées.
- b) La place prédominante accordée aux valeurs culturelles dans le nouveau plan de gestion et le niveau de participation de la population maori locale.

Au cours de l'élaboration du nouveau plan de gestion du parc, ces deux questions ont été résolues de façon à protéger les valeurs naturelles du parc et à rehausser les valeurs culturelles et spirituelles du peuple maori. Le développement des pistes skiabiles est confiné à des zones spécifiques pour lesquelles on a dressé des plans détaillés et pris des mesures restrictives quant à l'expansion des aménagements et au fonctionnement. Un objectif de gestion a été ajouté qui consiste à promouvoir une meilleure appréciation des valeurs culturelles. Des discussions approfondies avec le Conseil des Maoris ont débouché sur la rédaction d'un plan qui reflète mieux les préoccupations et les traditions de ce peuple.

#### 6. RECOMMANDATIONS

Le nouveau plan de gestion de Tongariro tient compte des préoccupations exprimées par le Bureau en 1987. Le parc devrait maintenant être inscrit sur la Liste du patrimoine mondial. Le Comité souhaitera peut-être féliciter les autorités de Nouvelle-Zélande qui ont reconnu la nécessité de limiter des aménagements touristiques inappropriés et fait l'effort d'accorder une place plus large aux valeurs culturelles de Tongariro, dans le nouveau plan de gestion.



**Identification**

<u>Bien proposé</u>	Parc national de Tongariro
<u>Lieu</u>	Régions de Tongariro et de Wanganui, Ile du Nord
<u>Etat partie</u>	Nouvelle-Zélande (Aotearoa)
<u>Date</u>	26 juillet 1993

**Justification émanant de l'Etat partie**

Les caractéristiques suivantes du parc national de Tongariro prouvent qu'il est doté de l'intégrité nécessaire lui permettant d'être reconnu comme un exemple exceptionnel de paysage culturel intégré :

- La force des associations permanentes des Ngati Tuwharetoa Iwi (tribu maorie) avec les montagnes depuis le jour où le canoë Arawa a accosté ; ces solides associations sont à la fois un lien physique (l'Anneau de feu Pacifique) et un lien culturel (Ngatoroirangi) avec leurs origines Pacifiques-Hawaikis. Les liens culturels apparaissent clairement dans l'histoire orale qui reste pour les Ngati Tuwharetoa une force pénétrante. Les hommes parlent des sommets avec le même respect et le même attachement que leurs ancêtres tribaux, ce qui prouve que le lien est autant spirituel que culturel.
- La relation d'identité culturelle avec les montagnes: Tongariro, Ngati Tuwharetoa et Te Heuheu ont un lien inextricable avec le pepeha tribal (déclaration d'attachement entre la tribu et la région) récité en toutes les occasions organisées par les Tuwharetoa Iwi.
- La signification culturelle du cadeau : le cadeau d'Horonuku en 1887 a été le centre du premier parc national de Nouvelle-Zélande et le quatrième du monde. Symboliquement, ce cadeau a été le premier concédé par un peuple indigène. Ce cadeau a favorisé la formation du réseau de parcs nationaux en Nouvelle-Zélande et a donc protégé certains des plus beaux paysages du monde.
- La reconnaissance à travers toute la Nouvelle-Zélande du riche tapis culturel tissé entre les Ngati Tuwharetoa et le parc.

Les remarquables qualités naturelles ont déjà été reconnues par la Liste du Patrimoine mondial. Les valeurs pluri-culturelles pour les Ngati Tuwharetoa et Te Atihaunui a Paparangi sont inséparables des qualités naturelles.

## Histoire et Description

### Histoire

Les Maoris sont des Polynésiens qui ont atteint Aotearoa (Nouvelle-Zélande) bien avant le quatorzième siècle, sans doute entre le 7ème et le 9ème siècles. Ils sont arrivés dans des canoës à double coque pour s'installer avec femmes, enfants ainsi que plantes et animaux domestiques. L'un des plus gros était le canoë Arawa qui est arrivé la première fois à Whangaparaoa au cap Est de l'île du Nord, puis qui a poursuivi sa route jusqu'à Maketu dans la Baie de Plenty.

Les descendants des colons de l'Arawa ont toujours autorité sur cette région qui s'étend au sud jusqu'au parc national de Tongariro. Le peuple du parc - Ngati Tuwharetoa - s'identifie à Ngatoroirangi, navigateur de l'Arawa et pourvoyeur légendaire du feu à Tongariro.

Mananui To Heuheu, chef suprême des Ngati Tuwharetoa, a été l'un des rares chefs à avoir refusé de signer le traité de Waitangi en 1840 et donc de se soumettre à la souveraineté de la couronne britannique. Son fils, Horonuku, lui a succédé en 1846 après que Mananui ait été enseveli par une avalanche dans les montagnes, a pris le nom de Te Heuheu Tukino en 1862 et s'est trouvé face à de très fortes pressions de colons hongrois. Confronté à ce cruel dilemme soit de diviser son territoire à la suite d'un litige l'opposant aux Maniapoto Iwi ou de le perdre, il demanda conseil à son beau-fils Lawrence Grace afin que ses terres soient "le lieu Tapu de la couronne, lieu sacré sous la mana de la reine". Avec l'approbation des chefs Tuwharetoa, le territoire fut offert à la couronne tel un cadeau en septembre 1887.

L'acte de donation faisait état d'une superficie de 2640 hectares constitués de trois petits cercles entourant les principaux sommets du premier parc national de Nouvelle-Zélande - qui fut le quatrième parc national du monde. Ces territoires étaient trop petits pour permettre une gestion efficace et au cours des années qui suivirent, la couronne entrepris des acquisitions à grande échelle des terres voisines jusqu'à ce qu'au moment de l'adoption de la loi régissant le parc national de Tongariro en 1894, la zone concernée ait une surface de 25.000 hectares. Un rapport de 1904 recommandait que la superficie du parc fut doublée. Aujourd'hui, le parc couvre environ 79.000 hectares.

### Histoire orale

La culture maorie a une très riche histoire orale dans laquelle les liens entre l'homme et le paysage joue un rôle central. La formation de la terre, l'amour violent des montagnes pour Pihanga (la femme volcan) et l'introduction du feu dans le centre de l'île du Nord sont les thèmes de quelques-unes des histoires maories les plus connues. Dans la mythologie maorie, les premiers enfants de Papatuanuku (mère-terre) et de Ranginui (père-ciel) sont les montagnes d'Aotearoa, alors que les derniers sont les hommes, ce qui explique les liens qui unissent les uns

et les autres.

Ngatoroirangi, ancêtre légendaire des Ngati Tuwharetoa, était prêtre ; il était également navigateur du célèbre canoë Arawa et explorateur. Sa première expédition le conduisit au sommet du mont Tauhara d'où il aperçut le sommet du Tongariro qu'il décida alors d'atteindre pour l'offrir à son peuple. Cette expédition est racontée dans un récit épique très connu. Quand il eut finalement atteint le sommet, épuisé et transi de froid, Ngatoroirangi demanda l'aide de ses ancêtres et de ses soeurs lointaines à Hawaiki de lui envoyer le feu. Elles entendirent sa requête et aidées des Dieux du feu Pupu et Te Hoata, elles lui envoyèrent depuis Hawaiki le feu pour qu'il survive. Son périlleux voyage est ponctué de mares de boue, de geysers, de puits de vapeur et de torrents d'eau brûlante parcourant Aotearoa depuis les volcans de Tongariro et Ngauruhoe jusqu'à la Baie de Plenty, lieu où les premiers colons avaient débarqué.

Pour les Ngati Tuwharetoa Iwi, ce paysage est vivant, il est doté de sa propre force de vie (mauri). Avec ses volcans éteints ou en activité, ses lacs d'eau thermale, il est un lien généalogique direct entre Hawaiki, terre d'origine des Ngati Tuwharetoa et la Baie de Plenty, leur point d'arrivée.

### Description

Le centre des 79.000 hectares qui constituent le parc national de Tongariro et son centre culturel est admirablement décrit par Léonard Cockayne dans le rapport qu'il réalisa en 1907:

"Les grands volcans Ruapehu, Tongariro et Ngauruhoe sont très différents les uns des autres. Ruapehu est une masse montagneuse superbe avec des glaciers se prolongeant en ravines. Son cratère qui mesure près de 1,5 km de diamètre est rempli de crevasses de glace encerclant un lac d'eau chaude... Ngauruhoe a la forme d'un cône parfait sans presque de végétation du pied au sommet. Au centre de son cratère se trouve un volcan de boue qui il y a peu de temps s'est déversé en recouvrant de boue brûlante les pentes de la montagne sur près de 300 mètres... Tongariro n'est pas un seul volcan, il est constitué d'un grand nombre de cratères dont certains sont inactifs depuis longtemps et d'autres émettent en permanence des vapeurs sulfureuses et sont prêts à cracher des cendres... un tel parc se devrait d'être l'une des possessions les plus précieuses de notre pays".

### **Gestion et Protection**

#### Statut juridique

L'ensemble du parc national de Tongariro appartient à la couronne (gouvernement et peuple de Nouvelle-Zélande). Par la loi de 1980 régissant les parcs nationaux, il a été décrété parc national. Ce parc est public et librement accessible à tous, avec cependant les réserves qui s'imposent pour qu'il puisse être conservé dans son état naturel.

## Gestion

Le Ministère de la Conservation est responsable de la gestion globale des ressources naturelles et historiques du parc. Les décisions relatives à sa gestion sont prises selon les responsabilités attribuées réglementairement, avec consultation du New Zealand Conservation Authority (Agence néo-zélandaise pour la Conservation) et le Comité de Conservation de Tongariro-Taupo. L'administration directe du Parc est assurée par le Regional Conservancy (Conservatoire régional) basé à Turangi.

Le Comité de Conservation de Tongariro Taupo a été constitué en 1990 ; il fait partie d'un réseau de dimension nationale qui permet aux citoyens de participer à la gestion et d'émettre des avis en matière de conservation. Il est composé de douze membres dont cinq Maoris. L'un des membres Maori était Sir Hepi Te Heuheu, descendant de Te Heuheu Tukino.

La loi sur les parcs nationaux de 1980 exige un programme de gestion décennal pour chacun des parcs. Le programme de Tongariro prévoit la protection à perpétuité de la valeur intrinsèque du parc tout en maintenant l'accès public pour le plaisir de tous. L'intégrité culturelle est généreusement préservée dans les régions qui restent intouchées.

## **Conservation et authenticité**

Depuis sa création en 1887, le parc national de Tongariro a été géré avec bienveillance, ce qui a majoritairement épargné son paysage naturel. La superficie des pentes skiables est limitée à 3% de la surface totale et elles ne s'élèvent pas là où elles risqueraient de menacer les valeurs culturelles. L'exposition du Centre d'Accueil du village de Whakapapa, dont la conception a été réalisée en étroite collaboration avec les deux Iwi, Ngati Tuwharetoa et Atihuani a Paparangi, explique la signification culturelle et naturelle du parc et aide à assurer le respect de son intégrité et de sa conservation.

## **Evaluation**

### Caractéristiques

Les qualités culturelles de Tongariro sont intimement liées à ses qualités naturelles, qui ont été reconnues lors de son inscription sur la Liste du Patrimoine mondial en 1990 comme bien naturel sur la base des critères ii et iii.

Dans le cas de Tongariro, le paysage joue un rôle fondamental en raison de la tradition orale qui définit et confirme l'identité culturelle du peuple maori : paysage et peuple sont intimement liés. Un sens fondamental de continuité avec les ancêtres se manifeste sous la forme d'un profond respect pour les sommets. La beauté naturelle de Tongariro est au centre spirituel et historique de la culture maorie.

## Commentaires supplémentaires

Tongariro est le premier site dont l'inscription sur la Liste du Patrimoine mondial est demandée sur la base des nouvelles orientations relatives au concept de paysage culturel. Il est important de préciser que ce site a été l'un des paysages-clés qui ont été pris en compte par les experts travaillant sur les paysages culturels et qui se sont rencontrés à la Petite Pierre en octobre 1992 et qu'en outre, il a servi de modèle à la définition de paysage culturel intégré dont l'inclusion était "justifiée par les puissantes associations religieuses, artistiques et culturelles des éléments naturels et non pas seulement par des éléments culturels matériels qui peuvent être sans intérêt ou même absents".

### **Recommandation**

Que ce site soit inscrit sur la Liste du Patrimoine mondial sur la base du critère vi :

- Critère vi Les montagnes qui se dressent au centre du parc national de Tongariro ont une énorme signification culturelle et religieuse pour le peuple maori et sont de puissants symboles des liens spirituels entre cette communauté humaine et son environnement naturel.

ICOMOS, octobre 1993