

## CHAPTER 3

# NGAHERE – THE FOREST ECONOMY

### 3.1 THE LOWLAND SWAMP – FORESTS

Before colonial settlement, agriculture had played a small part in Maori economy compared with the harvests from forests and fisheries. Maori settlements and cultivated gardens were concentrated at river mouths, estuaries, and lagoons – these are locations ecologically diverse and rich in wildlife resources.<sup>1</sup> In response to New Zealand’s ecological diversity, each hapu had developed a local economy. On the vast strands and mudflat harbours of Muriwhenua, Ngati Kuri were skilled in the technology of trapping migratory kuaka (godwit). In the South Island, Tikao thought, ‘rats and woodhens were more hunted . . . and the tui, pigeon and kaka in the North Island.’<sup>2</sup>

Park has proposed that swamp-forests occupying lowland plains were the key to life-support systems of the whenua.<sup>3</sup> Lowland forests created the conditions of light, water temperature, nutrients, spawning grounds, stable stream beds, and protective cover that sustained freshwater fish as they migrated from the sea into the upper reaches of streams. Swamplands supported cabbage trees, flax, and eels, which were staples of some South Island hapu.<sup>4</sup>

Dominating the swamp-forests, before clearance and drainage for agriculture, was the kahikatea. Park describes kahikatea as the fruit basket of the forest; mature trees produced abundant crops of berries harvested by birds, rats, reptiles, and humans.<sup>5</sup> Waikaka (spring eels, mudfish), a prized delicacy of Maori for presentation at feasts, hibernated during summer drought in cavities beneath the roots.<sup>6</sup>

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1. G Park, *Nga Uruora/Groves of Life: Ecology and History in a New Zealand Landscape*, Wellington, Victoria University Press, 1995, p 54
  2. H Beattie, *Tikao Talks: Traditions and Tales told by Teone Taare Tikao to Herries Beattie*, Wellington, Reed, 1939 (Penguin, 1990), p 136. In the South Island also, ‘Owing to the vast number of birds and the small population these birds did not need to be hunted with the elaborate preparations used in the northern island.’
  3. Park, p 13
  4. Nineteenth-century lists of South Island mahinga kai (food-gathering places) refer most often to eels, fern roots, and cabbage trees as food sources (R M McDowall, *New Zealand Freshwater Fishes: A Natural History and Guide*, Auckland, Heinemann Reed and MAF publishing, 1990, p 408, citing A J Anderson’s evidence presented at the Waitangi Tribunal hearing, Tuahiwi Marae, 1988).
  5. Park, pp 36, 206. Maori kahika is derived from \*kafika, the tropical Pacific malay apple, *Syzygium malaccense*, a tree of fruitful abundance.
  6. W J Phillipps, *The Fishes of New Zealand*, New Plymouth, Avery, 1940; McDowall, *Natural History*, pp 143, 416

Tracts of swamp, with pools enclosed by flax and raupo, occupied gaps in the kahikatea forests. Inanga in vast numbers, shortfin eels, and giant kokopu migrated into these territories. The great fisheries harvests of swamp-plain rivers such as the Manawatu, Waikato, and Waihou were derived from the vast area of lowland swamp-forest watered by these rivers.<sup>7</sup>

Lowland forests contained berry-bearing groves which supported the birds Maori most prized. Kahikatea, matai, maire tawake, hinau, porokaiwhiri, totara, rimu, and puriri provided a year-round supply of berries for pigeons (kereru) and parrots (kaka, kakariki, kakapo) which were the quarry of hunting, snaring, trapping, and decoy techniques. In Maori usage, the berry of a tree may have its own name;<sup>8</sup> a trapping technique may have its own vocabulary.<sup>9</sup> The flesh of berry-eating birds is particularly sweet, and it is the berry-eating kereru and kaka which North Island hapu caught with the greatest variety of trapping techniques. Maori also gather the berries of the kahikatea, matai, rimu, and many other trees, the fruiting heads of kiekie and many other plants. Forest berries are a nutritional fallback for most birds and reptiles, and for kiore.

The kereru is the last remaining species in the New Zealand fauna to survive while solely depending on a year-round supply of berries. The parrots (kaka, kakapo) are also conspicuous consumers. The mohua group (whitehead, yellowhead, brown creeper) supplement their diet with berries; kiwi, weka, pukeko, and takahe are opportunistic scroungers. Maori hunt all birds whose flesh is palatable. Kokako, although a berry-feeder, is unpalatable, along with the bittern. Pigeons, solely dependent on berries, are prized amongst forest products, especially when the fat is scented from eating miro berries.<sup>10</sup>

The lowland forests also provided warmth, maintaining large populations of birds through the winter. Pigeons habitually fly daily from the mountain ranges down to the lowland forests to feed, and remain seasonally in the lowland forests to nest and winter over.

Forest floors supported a rich terrestrial fauna of insects and invertebrates, providing a food source for birds, reptiles, fish, and humans; the inundation of forest floors with river silt and leaf litter provided fertile soils for agriculture.

From the late eighteenth century, Maori interests in maintaining the traditional forest economy were challenged by the opportunities of a world market, as some hapu recognised the value of forest timbers to British maritime interests. In 1801 William Wilson, captain of the London Missionary Society ship *Duff*, notated a chart of the Waihou River mouth, where the Hauraki plains meet the Firth of Thames:

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7. R M McDowall, *The New Zealand Whitebait Book*, Wellington, Reed, 1984, p 122

8. For example, koroi is the berry of kahikatea, *Dacrycarpus dacrydioides*; horeto is the ripe fruit of poroporo, *Solanum aviculare*; tawhara is the edible flower bract of kiekie, *Freycinetia baueriana banksii*; and so on. J Beever, *A Dictionary of Maori Plant Names*, Auckland, Auckland Botanical Society, 1987.

9. The techniques are illustrated in J White, *The Ancient History of the Maori*, 7 vols, Wellington, Government Printer, 1887–1891.

10. M Orbell, *The Natural World of the Maori*, Auckland, Collins, 1985, p 23; J W Lock, personal communication

As the object of ships going to the River Thames [Waihou] is to procure Spars, the best season is from the beginning of November . . . Short timber may be got from the Hehe a cheif on the Eastern [bank]<sup>11</sup>

In 1840, many hapu, while prosperously engaged in a dual economy, maintained their interests in the self-sustaining harvests of the lowland forests. By now, however, the silt-rich plains were the prime lands intended by Pakeha for an agricultural economy.<sup>12</sup> The forests were harvested by Maori until their productivity was lost through land sales, confiscations, denials of chosen reserves, subdivision into small blocks,<sup>13</sup> saw milling, illegal grazing and timber cutting, land-clearance, swamp-drainage, and the inroads of introduced species. The stands of ragged kahikatea, unfenced, trampled by stock on the plains of Hauraki, are the remnant of Maori interests in a forest economy.

### 3.2 CRITIQUE OF COLONIAL IMPACT

In 1840, awareness of the need to secure forest protection was global. From 1600 commentary on the destructive impact of European economic activity on colonised people and lands had reached London from settlers, governors, natural philosophers, scientists, and explorative thinkers who had participated in European colonial expansion, and observed deforestation and land degradation at first hand. In New Zealand ‘the early colonial conservationists . . . were able to foresee, with remarkable precision, the apparently unmanageable environmental problems of today’.<sup>14</sup> The colonies were centres of environmental discourse.<sup>15</sup>

Extensive descriptions of the damaging ecological effects of deforestation and European plantation agriculture in the Canary Islands and Madeira had existed from around 1500,<sup>16</sup> and in the West Indies from 1560. Some of the worst consequences of early colonial deforestation were documented in the island colonies of St Helena during 1760 to 1794, and Mauritius during 1722 to 1790.<sup>17</sup>

11. Reproduced in Park, p 57

12. Park, pp 94, 98

13. The policy of creating individual titles to land resulted in small stands of forest and fragmented ecosystems. Small forest stands support many fewer species than large stands. ‘In New Zealand the number of bird species that can survive in a forest decreases as the size of that forest is reduced . . . We can expect to lose about 10 percent of our forest bird species for every halving of forest area’. K R Hackwell, D G Dawson, ‘Designing Forest Reserves’, *Forest and Bird*, vol 13, no 8, p 8).

14. M M Roche, *Forest Policy in New Zealand*, Palmerston North, Dunmore Press, 1987, p 12. For example, Alexander von Humboldt in 1808 put forward a new ecological concept of the subordination of man to other forces in the natural world, and of the ecological threat posed by the unrestrained activities of man, which was published in London in an English translation in 1849 (A Humbolt, *Ansichten der Natur*, Berlin, 1808; A Humboldt, *Aspects of Nature*, trans. Mrs Sabine, 8 vols, London, 1849). Giving priority of the welfare of the natural world is currently advocated in some third world and ecological discourses, see R E Grumbine, ‘What is Ecosystem Management?’, in *Conservation Biology*, vol 8, no 1, 1994, pp 27–38.

15. R H Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600–1860*, Cambridge University Press, pp 2–3

16. R Bryans, *Madeira, Pearl of Atlantic*, London, 1959

17. Grove, pp 1–6, 474–476

From 1650 a coherent, organised, and wide-ranging critique had attributed environmental degradation to the economic demands of colonial rule. The Dutch, English, and French East India trading companies, and later the New Zealand Company,<sup>18</sup> employed medical surgeons and botanists, ‘highly educated and often independent thinking colonial employees’, who became ‘an essential part of the administrative and hierarchical machinery of the new trading companies’ and who were at the same time ‘committed professional scientists and environmental commentators’.<sup>19</sup> Groves comments that the large-scale environmental modification promoted by colonial enterprise invited analytical thinking about the processes of ecological change, about the role of colonial rule, and about new forms of land use, and after 1750 climatic theories gave a scientifically reasoned force to conservation:

By the end of the eighteenth century . . . new environmental theories, along with an ever-growing flood of information about the natural history and ethnology of the newly colonised lands, were quickly diffused through the meetings and publications of a whole set of ‘academies’ and scientific societies.<sup>20</sup>

Amongst these societies was the London Society for the Encouragement of Arts, Manufactures and Commerce, later the Royal Society of Arts, which engaged in vigorous conservationist lobbying.<sup>21</sup> London also was the location of the Colonial Office, which from 1763 administered St Vincent, and from 1840, New Zealand.<sup>22</sup>

### 3.3 WHAT THE CROWN KNEW IN 1840

In 1760, Vattel’s *Law of Nations* was translated into English. This tract legitimated colonial annexation and the acquisition of sovereignty, by reference to the exercise of forest clearance and cultivation. Vattel’s thesis was that as human population

18. The operators of the New Zealand Company were also participants in the wider colonial enterprise. Russell Ellice, for example, was a merchant in the East India trade, a foundation member of the New Zealand Company in 1825, a director of the New Zealand Company in 1839, and chairman of the East India Company in 1853.

19. Grove, p 7. Ernst Dieffenbach, naturalist to the New Zealand Company, and Ferdinand Hochstetter, geologist to the Auckland province, recorded observations on colonial impact in New Zealand (E Dieffenbach, *Travels in New Zealand*, London, Murray, 1843; F Hochstetter, *New Zealand, Its Physical Geography, Geology and Natural History*, Stuttgart, Cotta, 1867). Alfred Thomson (Surgeon-General of the 58th Regiment) and Edward Shortland (member of the Royal College of Physicians, and Native Secretary) included medical section in their ethnographic observations. E Shortland, *Traditions and Superstitions of the New Zealanders*, London, 1856; A S Thomson, *The Story of New Zealand: Past and Present – Savage and Civilised*, London, 1859.

20. Grove, p 8

21. Grove, p 11

22. In 1763 two Lords Commissioners for Trade were members of the London Society of Arts, and theories of the climatic consequences of deforestation can be recognised, incorporated into colonial land settlement and forest policy (Grove, p 274). London continued to be a centre of incoming reports. In 1852 Scottish scientists working for the East India Company published a ‘Report of a Committee Appointed by the British Association to Consider the Probable Effects . . . of the Destruction of Tropical Forests’. The report ‘took a global approach, drawing on evidence and scientific papers from all over the world’ (Grove, p 11).

increased, those who did not cultivate the land had no right to retain control of the land:

The cultivation of the earth . . . forms the resource and the most solid fund of riches and commerce . . . the sovereign ought not to allow either communities or private persons to occupy large tracts of land in order to have it uncultivated. These rights of common, which deprive the proprietor of the free liberty of disposing of his lands . . . are contrary to the welfare of the state . . . at present, when the human race is so multiplied it could not subsist, if all nations resolved to live in that manner.<sup>23</sup>

At the same time, however, ideas of the impact of modern economic activity, of species extinction, and of climatic consequences of deforestation, were being exchanged between colonial botanists and colonial administrators. A common matrix of ideas seems to have been applied first in the Caribbean colony and then in New Zealand.

Britain annexed the Eastern Caribbean islands (St Vincent, Tobago, Dominica, and Grenada) in 1763, and by 1764 programmes of forest protection were quickly being put into effect, though without reference to indigenous Carib interests in the forest. An ordinance of 1765 stated that woodlands should be preserved ‘as shall seem necessary for the constitution and repair of fortifications and public buildings and to prevent that drought which in these climates is the usual consequence of a total removal of woods’ and granted that ‘the native Caribbees of St Vincent are to remain undisturbed in the possession of their cottages and goods’ and receive ‘full rights as British subjects’.<sup>24</sup> At the same time the 1764 land proclamation had made no provision for Carib modes of forest use nor for their common ownership of land; the land was to be surveyed, redistributed, and sold.<sup>25</sup>

The chief settlement commissioner believed that if the indigenous Caribs were ‘assured of the enjoyment of their lands, freedom, favour and protection’ they would cooperate with British colonial settlement.<sup>26</sup> Towards forests, however, he promoted a subversive policy: he accorded priority to sugar production on cultivable lowland and shifted forest reserves to ‘hilly areas’. He shared the settlers’ hostility to indigenous forest, which he described as ‘hot and reeking’ and amongst ‘the chief obstructions to the [speedy settlement of the colony]’.<sup>27</sup> From the Treaty of 1840 to the New Zealand Forests Act 1874, New Zealand’s colonial administrators and settlers echoed the same themes.

By 1850 ‘the problem of tropical deforestation was conceived of as a problem existing on a global scale and as a phenomenon demanding urgent and concerted state intervention’.<sup>28</sup> During the 1870s, ideas of timber famine, and of the influence of forests on climate, soil erosion, and flood protection appeared in New Zealand

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23. E de Vattel, *The Law of Nations, or Principles of Natural Law, Applied to the Conduct And Affairs of Nations and Sovereigns: A Work Tending To Display The True Interest of Powers*, London, 1760, p 37

24. PRO, CO 106/9, cited by Grove, pp 271–272

25. Grove, pp 286, 287, 290, 291

26. Grove, p 285

27. Grove, p 273

28. Grove, pp 1, 5, 6

parliamentary debates leading up to the Forests Act 1874. Charles O'Neill expressed concern for a future timber famine, and quoted from G P Marsh; Donald McLean referred to problems of flooding and of reduced rainfall caused by deforestation; while Julius Vogel supported his advocacy of the New Zealand Forests Act with examples from British, French, Indian, Australian, and American developments.<sup>29</sup>

At the time of the forest debates New Zealand's Governor was Sir James Fergusson, who had served in India; Grove comments that India eventually provided a pattern for colonial state conservation in South-East Asia, Australasia, Africa, and North America.<sup>30</sup> Fergusson supplied Vogel with international papers on the sustained use of forestry, and in 1874 Donald McLean recommended that the New Zealand Government appoint a professional forester 'who had served some time in the Forest Department in India'. In 1875 an Indian forester, Captain Inches Campbell Walker, was appointed New Zealand Conservator of Forests.<sup>31</sup>

New Zealand legislators, however, gave forest conservation their own reading. While McLean spoke of conservancy of forests and rivers, his memorandum emphasised rivers as transport routes;<sup>32</sup> Vogel advocated management of indigenous forest in order to discharge the colony's public debt;<sup>33</sup> opponents of the Bill considered the presence of indigenous forest an obstacle to settlement, organised state forestry was resisted, and Campbell Walker was not voted a salary.<sup>34</sup>

In essence, New Zealand legislators intended to exploit indigenous forests for revenue from sawmilling, while converting the landscape to an agricultural and pastoral economy. Land for Pakeha settlement would be met by clearing indigenous forest. Timber famine would be averted by afforestation with exotic species.<sup>35</sup> New Zealand's indigenous forests were to be a single, valuable crop.<sup>36</sup>

Thus, during the nineteenth century there were disparities between the scope of French social and environmental reforms in Mauritius, the involvement of British scientists in forest-conservancy in India, and the lack of action by the British Crown in its colonies. Grove notes that in Mauritius, the scientific voice was anti-capitalist, and the elite valued the environment, that is, the intellectual forces behind state action in Mauritius saw forest protection as an essential component of radical social reform.<sup>37</sup> In New Zealand, governing and statutory bodies (central government, provincial governments, waste land boards, acclimatisation societies, vermin control boards, county councils, roads boards, regional councils, and so on) have

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29. G P Marsh, *Man and Nature*, New York, Charles Scribner, 1864; Roche, *Forest Policy*, pp 71–80; J Vogel, 14 July 1874, NZPD, 1874, vol 16, pp 79–84

30. Grove, pp 11–12

31. Roche, *Forest Policy*, pp 76, 80–81, citing Cabinet memorandum, 3 March 1874, F10/1

32. Roche, *Forest policy*, p 75, citing Appointment of Conservator of Forests, 11 March 1874, F10/1, at New Zealand National Archives

33. NZPD, 1874, vol 16, p 75; G Wynn, 'Pioneers, Politicians and the Conservation of Forests in Early New Zealand', in *Journal of Historical Geography*, vol 5 no 2, pp 1–18; Roche, *Forest Policy*, p 77

34. Roche, *Forest Policy*, pp 88, 90

35. Roche, *Forest Policy*, pp 73–79, 95–96

36. Roche, p 23

37. Grove, pp 9–10, 476–477

largely been composed of merchants and land-holders whose interests lie with an acclimatised economy, and who have been allowed relative autonomy.<sup>38</sup> During the New Zealand Forests Act debate in the 1870s, Campbell Walker argued that such control was against the trend of overseas experience, that local bodies were ignorant of forestry practices, and further that they were hampered by a limited viewpoint and fluctuating membership;<sup>39</sup> Walker was not retained as Forest Conservator. In 1996, Regional Councils still grant resource permits for forestry and mining practices.

### 3.4 NEW ZEALAND'S FOREST POLICY

In 1840 more than 50 percent of New Zealand was forest-covered. Roche recounts that the British Royal Navy made proposals for forest management in March 1840, immediately after the signing of the Treaty. In 1820 the Royal Navy had found New Zealand kauri too expensive, but now Captain Sir William Symonds advised the Admiralty that kauri had become available on 'reasonable terms', and advocated reservation of suitable areas of forest before the lands were settled. However, Crown policy was that land clearance for agriculture took priority over forest, and the Admiralty encountered opposition from the British Colonial Land and Emigration Office, which directed that the requirements of the Royal Navy would conflict with those of the settlers:

to reserve the forest is to reserve the land, with whatever object it is made Crown Reserves of land in a new Colony are in our opinion impediments to the progress of settlement and hurtful to the interests of settlement.<sup>40</sup>

In 1841 Governor Hobson was advised by the Colonial Lands and Emigration Office to issue timber licences for cutting kauri on Crown wastelands, and to appoint a Conservator of Kauri Forests. When this did not happen, the Crown managed indigenous forests through timber licensing and timber reserves.<sup>41</sup>

Along with Crown regulation of indigenous forests for timber cutting, sawmilling, settlement, and agricultural clearance, settler actions towards the forest included wasteful use, burning, grazing, and illegal cutting on Maori lands,

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38. In 1856, control of the disposal of public lands was handed over from the General Assembly to the Provincial Assemblies. Patterson's reconstruction of the members elected to the Wellington Provincial Assembly in 1853 presents an alliance between pastoral farmers with large landholdings, big merchants, and flockmasters (B Patterson, 'Would King Isaac the First Lose his head?', in *New Zealand Studies*, vol 6, no 1, 1996, pp 5, 13).

39. Campbell Walker, *AJHR*, 1877, C3, p 50; Roche, *Forest Policy*, pp 87–89

40. Roche, *Forest Policy*, p 21, quoting Colonial Land and Emigration Office to Colonial Office, 7 January 1841, No 8, Enclosure 2 G 1/1. Roche notes: 'An alternative strategy was proposed whereby the Crown would have the right to cut kauri on unoccupied land and have a pre-emptive right to purchase kauri on freehold lands at fixed prices. This was a compromise suggestion to sustain the availability of timber supplies and speed the clearance of forest land for settlement'.

41. The Forest Conservator was to have been Captain W C Symonds, but he died in 1841 and no appointment was made (Roche, *Forest Policy*, pp 19–22).

particularly in the Auckland province: ‘Control over the use of forest resources on Crown Lands was lacking and in consequence wasteful and illegal use abounded’.<sup>42</sup> In November 1841, Governor Hobson addressed the destruction of kauri forests by gazetting his intention to preserve areas of kauri forest for naval use, and to prosecute misuse of the forest. Roche notes that Hobson had no means of policing the regulations.<sup>43</sup>

Forested land was categorised as ‘waste land’, which the Crown intended to be subdivided, freeholded, and transposed into profitable production for a market economy. Timber licences were issued for the cutting of forest on Crown land (for sawmilling, hand sawing, fencing, firewood, charcoal). The income from timber licences did no more than equate with the cost of administration; Roche comments that the objective of the timber licence regulations was to protect the rights of sawmillers who had invested capital in technology (saw pits, tramways, and so on). The timber licence regulations were paired with ‘depasturing’ licences for grazing rights to Crown lands.<sup>44</sup> The Crown treated the forest as a valuable single crop, as an immediate economic resource, and as a hindrance to land settlement and to agricultural production. After one hundred years of kauri extraction, 1790 to 1890, kauri production declined and did not recover.<sup>45</sup> Roche concluded it was not a Crown objective to conserve the forest resource. Nor, it must be concluded, was it a Crown objective to protect Maori interests in the forest as an ever-renewing resource.<sup>46</sup>

From 1840 to 1870 the Crown pursued several agendas: to supply the British navy with timber for ship building and spars; to make available indigenous forests to sawmillers and timber cutters; to secure revenue from timber exports, and to remove indigenous forest so that Pakeha could rapidly settle and establish an agricultural economy.

### 3.5 FOREST MANAGEMENT ON MAORI LANDS

During the 1860s and 1870s relentlessly indiscriminate use of forest lands, invalid licences and transgressions of the conditions under which timber licences were issued, wasteful cutting, illegal cutting on Crown land, and illegal cutting on Maori land became matters of public notice.<sup>47</sup> Roche has reconstructed events in the Auckland province:

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42. Roche, *Forest Policy*, p 37

43. Roche, *Forest Policy*, pp 21, 22, 27

44. Crown Lands Ordinance 1849; Waste Land Act 1854 (Roche, *Forest Policy*, p 23).

45. Roche, *Forest Policy*, pp 23, 27, 29

46. Roche comments that the Crown’s relative disinterest in indigenous forest management from 1840 is reflected in the paucity of references to timber licensing in Parliament (Roche, *Forest Policy*, pp 23, 24).

47. Roche, *Forest Policy*, p 30. For example, in 1875, as the Crown negotiated with Coromandel Maori for the purchase of gold prospecting rights, a report from the land surveyor and purchasing agent James McKay alerted Governor Grey to illegal cutting by miners of forest on Maori land (Roche, *History of Forestry*, pp 60–61, citing AJHR 1875, C3, p 2).

Although the Auckland provincial administration was more careful in its handling of timber licensing, illegal cutting on Maori land continued. By December 1873 the situation was sufficiently serious for the Superintendent to place a notice in the gazette to the effect that ‘all persons are warned not to damage, cut, fell, remove any timber or underwood of any kind whatsoever growing standing or lying upon the said lands of the Province of Auckland’.<sup>48</sup> Prosecution under the *Crown Lands Act, 1862* was threatened which amounted to a £40 fine per acre of illegally cut over lands with a maximum of £2 per tree where the diameter exceeded 30 inches. Another notice was issued the same day warning the public not ‘cut, fell or remove or contract’ for any timber on Maori lands where the land title had not been determined by the Maori Land Court or on lands which the government was engaged in purchasing. Provincial and later central government interest in forest management on Maori lands was essentially a North Island question during the nineteenth and twentieth centuries.

The Crown exercised a pre-emptive right to purchase Maori lands from 1840 to 1844 and 1847 to 1862. However, although the authorities would not issue licences to cut timber on Maori land or areas under disputed purchase neither does it appear that they would forbid what in effect was the free use of the forest resources. For example, the *NZ Government Gazette of New Ulster*<sup>49</sup> in 1847 indicated that W. Hart’s application for a timber cutting licence for Muddy Creek in Manukau was recognised as being on Maori land but that the Government would not interfere as long as there was no complaint from Maori owners. In the longer term it is evident that Maori land owners were troubled by illegal timber cutting in their lands. Some idea of the magnitude and extent of felling may be gained from the grievances laid before the Provincial Superintendent during the 1870s. While complaints were received from throughout the Province, they were concentrated in Northland, coincident with the kauri timber industry . . .

The Provincial Superintendent’s attempts to stop illegal felling by forbidding all Europeans from cutting timber on Maori land was greeted with a mixed reaction. Te Haeru wrote to the Superintendent in 1874 that ‘with us alone is the control of our lands’.<sup>50</sup> This summarised the concern of many Maori with more Pakeha Government pronouncements over how landowners might use their lands. Other Maoris had entered into agreements with timber cutters which they were reluctant to break and not only for business reasons: Kikipa wrote that he ‘would not depart from any arrangement, nor will I alter my previous thought until the termination of the period agreed upon’.<sup>51</sup> However, in other instances the Superintendent’s proclamation was favourably received. Te Matetahi supported the move and drew attention to the ‘cultivations of the natives . . . destroyed and fences broken by the timber (cutter)’.<sup>52</sup> Subsequently, there occurred in some areas, a withdrawal of Maori land and labour from the timber trade.<sup>53</sup>

Many European settlers responded negatively to the proclamation. They argued that a basic requirement was being denied to them.<sup>54</sup>

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48. *New Zealand Gazette*, 8 December 1873, 5, p 301

49. *New Zealand Government Gazette of New Ulster* vol 7, no 23, 1847, p 125

50. Auckland Province, Superintendent’s inward correspondence, 225/74

51. Auckland Province, Superintendent’s inward correspondence, 272/74

52. Auckland Province, Superintendent’s inward correspondence, 315/74

53. P W Hohepa, *A Maori Community in Northland*, Wellington, Reed, 1974, pp 39–42

**3.6 THE NEW ZEALAND FORESTS ACT 1874**

Up to 1840 traders had harvested the more easily accessible natural resources such as whale and seal fisheries, flax and timber, and after 1840 the expectation remained that the Crown could legitimately harvest the material productions of the land to obtain revenue.<sup>55</sup> From 1820 New Zealand's indigenous forests were successively worked through, first for spars, then for sawn timber, then for minor products: palings, fence posts, railway rails, and firewood.<sup>56</sup> By the 1860s, the Crown's policy of harvesting natural resources had created a landscape of wasteful timber cutting, fire, flooding, and deforestation,<sup>57</sup> and in the late 1860s Parliament took stock of its forestry management practices: 'there was a general consensus amongst the Provincial Superintendents that both licences and timber reserves were wasteful and an ill advised means of forest management'.<sup>58</sup> The Superintendent of Canterbury Province reported that timber licences 'give men the right to go anywhere through the forest and to cut and destroy any quantity of timber . . . They have no permanent interest in the soil they look only to the present and often destroy as much valuable timber as they bring onto the market'.<sup>59</sup>

There was also recognition that indigenous forests were rapidly disappearing. In 1870 Thomas Potts, politician and naturalist, foresaw the 'almost entire destruction of many interesting and valuable species'.<sup>60</sup> In 1874 Otago forest rangers argued that forest resources were not 'super-abundant' and urged 'the community to have existing forests protected from the reckless extravagance which is prevalent in the Province'.<sup>61</sup> In the Waikato Josiah Firth commented, 'the almost total destruction of forests of the North Island is but a question of time, unless stringent measures are taken to conserve them'.<sup>62</sup> The need for forest management precipitated the New Zealand Forests Bill 1874.

During the purchase of Maori lands, central government had acquired large tracts of forest. The abandoned Conservation of Forests Bill 1873 and the New Zealand Forests Bill 1874 'sought to achieve efficient exploitation of forest resources'<sup>63</sup> in the interests of the Crown. Julius Vogel opened the 1874 debate by listing the reasons for forest conservation:

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54. Roche, *Forest Policy*, pp 30–32. Further descriptions of illegal cutting on Maori land, and Maori participation in the timber trade are in M M Roche, *History of New Zealand Forestry*, [Wellington] New Zealand Forestry Corporation and GP Books, 1990, pp 53–54, 57, 61–62
55. Roche, *History of Forestry*, p 46
56. Exports of sawn timber peaked in 1843. In 1853 the value of exported timber peaked at 93,488 pounds (Roche, *History of Forestry*, pp 47, 48, 57).
57. Roche, *Forest Policy*, p 76
58. Roche, *Forest Policy*, p 38, citing AJHR, 1869, D22
59. Roche, *Forest Policy*, p 39, citing AJHR, 1869, D22, p 9
60. T H Potts and W Gray, 'On the Cultivation of Some Species of Native Trees and Shrubs', in *Transactions of the New Zealand Institute*, vol 3, 1870, p 181 (Roche, *Forest Policy*, p 45)
61. Roche, *Forest Policy*, p 38, citing AJHR, 1874, H5, p 18
62. J C Firth, 'Forest Culture in New Zealand', in *Transactions of the New Zealand Institute*, vol 7, 1874, p 183 (Roche, *Forest Policy*, p 55)
63. Roche, *History of Forestry*, p 84

The Bill . . . embodies a definite proposal for the establishment and management of State Forests. . . . how very large was the demand for timber which arose from our railway works and our telegraph construction and maintenance; how very great were the injuries caused by floods, and how much deterioration our climate was liable to sustain, from the destruction of forests.<sup>64</sup>

Throughout the debates there is no evidence that the Crown had regard for Maori interests, such as protecting mature, berry-rich stands from milling and burning. Since the Crown was to retain a portion of its land purchases, it could fairly have made provision for Maori interests in undisturbed forest (medicinal plants, mature berry-bearing trees, spawning grounds, and so on). Since the Crown utilised state forests to provide itself with railway sleepers and with revenue from timber licences, and to provide settlers with wood for housing, fencing, firewood, and revenue from milling, from Maori perspectives this could fairly have meant reserving forest for a sustained harvest of its natural products (birds, fish, fibre, canoe and carving timbers).

Instead, Vogel advocated exotic tree-planting to compensate for the loss of indigenous forest:

I have as yet omitted mention of one large advantage derivable from tree-planting – the shelter it affords to land, enabling [agri]culture to be carried on . . . all the differences between the civilised uses of a country possessing a sufficiency of timber at its disposal, and a country which is wanting in one of the greatest essentials for the comfort of mankind . . . we must not suppose that ‘forest’ is a convertible term for ‘supply of useful timber’. Indigenous forests may be comparatively worthless in that respect; and it has not in any case been found that forests, when untended and uncared for, are anything like as useful or as prolific as forests that have been carefully cultivated.<sup>65</sup>

Global discourse on the loss of indigenous forests had been marked by concern for timber famine, flooding, soil erosion, and climatic effects, in concert with concern for the prosperity of colonial society. In New Zealand the debate was between politicians concerned that forest conservation would hinder land settlement, and politicians concerned that prosperity of the colonial economy would be hindered by timber shortages, flooding, and soil erosion. When the New Zealand Forests Act was debated in 1873 and 1874, the Crown’s response to deforestation did not countenance protecting long-term Maori interests in their harvests of forest flora and fauna; forests remained the resource of sawmillers and timber cutters.<sup>66</sup>

Thus, while Maori insisted on their right to participate in the timber trade as they chose, the Crown involved itself in policies vis-a-vis the indigenous forests which realised its own and settler short-term interests.

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64. J Vogel, 14 July 1874, NZPD, 1874, vol 16, p 79

65. J Vogel, 14 July 1874, NZPD, 1874, vol 16, p 84

66. Roche, *Forest Policy*, p 80

### 3.7 JUSTIFYING ACCLIMATISATION

As farmers replaced indigenous forest with grasslands, they provided for shelter belts, fuel, and future timber supplies by planting introduced species. Just as the Crown had encouraged the clearance of native forest from 1841, from 1871 it encouraged the planting of exotic species, through tax exemptions, land grants, supplying nursery trees, and statutes.<sup>67</sup> From the 1870s, Monterey pine (*Pinus radiata*) and eucalyptus were favoured.<sup>68</sup> The settlers were building a new homeland, though not, Roche notes, necessarily a replica of Britain, as the exotic species were derived from Europe, Australia, and North America.

Crown and settler inclination to replace the indigenous forest with a new landscape found justification in a scientific idea disseminated globally along with the critique of colonial impact, that stronger invading species inevitably displace weaker indigenous stock.<sup>69</sup> Through recourse to this theory, New Zealand legislators avoided addressing the unsustainability of the Crown's forestry practices. During the debates in the House, John Sheehan justified his opposition to indigenous forest conservation:

any attempt to preserve native timber in New Zealand will result in failure . . . the same mysterious law . . . by which the brown race sooner or later, passes from the face of the earth – applies to native timber. Wherever grass, clover, and European plants and animals find their way into the bush, the forest begins to decay away, and soon assumes a ragged and desolate condition.<sup>70</sup>

New Zealand surveyors also had observed the die-back of the outer edges of forest stands; they however understood, with original insight, that indigenous forest does not withstand fragmentation by land clearances:

There is something about our forests, especially the outer edge, that makes them very charming. Nature has provided a more hardy class of trees and shrubs on the outskirts to act as a protection to the more delicate ones within. It may be noticed readily by any one who attempts to preserve small portions of the standing bush, that after a time the edges begin to dwindle, and will in the course of a few years become blasted by the wind and other atmospheric influence.<sup>71</sup>

The conflict between forest management and land settlement reached a peak in the 1980s.<sup>72</sup> In 1896 a timber conference was held in Wellington to address concerns about an inevitable timber famine. The working parties responded to

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67. Canterbury Planting of Trees Ordinance 1858; Canterbury Forest Trees Bill 1871; Forest Trees Planting Encouragement Act 1871; Otago Waste Lands Act 1872 (Roche, *Forest Policy*, pp 49–50).

68. Roche, *Forest Policy*, pp 47–48

69. Through readings of Charles Darwin, *The Origin of Species By Means of Natural Selection*, London, 1859; J D Hooker, 'Notes on the Replacement of Species in the Colonies and Elsewhere', in *Natural History Review*, vol 4, 1864, pp 123–127; J D Hooker, 'On the Struggle for Existence Amongst Plants', in *Popular Science Review*, vol VI, 1867, pp 131–139 (Roche, *Forest Policy*, pp 44–45).

70. Roche, *Forest Policy*, p 79, citing NZPD, 1874, vol 16, p 351

71. Edwin Stanley Brookes, *Frontier Life: Taranaki, New Zealand*, Auckland, Brett, 1892, p 173

72. Roche, *History of Forestry*, p 95

overharvesting of the indigenous forests, by arguing that indigenous species were slow-growing, and advocating tree planting with exotic species to create a new forest resource.<sup>73</sup> Still Maori interests in the forest flora and fauna were not debated.

As Roche notes, the forest flora of New Zealand requires growing conditions which are different from the arboricultural and silvicultural techniques appropriate to European trees. By the 1870s several people had established how to propagate native trees successfully. Potts and Gray published ‘On the Cultivation of Some Species of Native Trees and Shrubs’ in *Transactions of the New Zealand Institute* in 1870, while Hay published ‘On the Cultivation of Native Trees’ in *Transactions of the New Zealand Institute* in 1872. Roche makes a pertinent comment: Potts and Hay, recognising that indigenous trees could be propagated when the shade and moisture of their forest habitat were replicated, did not use the ‘inevitable displacement’ arguments of some of their contemporaries.<sup>74</sup> Potts was a member of Parliament, and made his views well known in parliamentary debates. Had there been the will to protect Maori interests in a sustainable forest economy, the Crown could have called on literature, forestry expertise, and original thinking that was immediately at hand.

### 3.8 CONCLUSION

Land settlement pressure continued into the twentieth century. From 1890 to 1919, 623,257 acres of state forest lands were revoked for settlement and cleared of indigenous forest.<sup>75</sup> By 1919 60,000 acres had been reforested with introduced trees, mainly by wealthy landowners, many of whom received government grants of land for doing so.<sup>76</sup>

Fifty years after the signing of the Treaty of Waitangi, the parliamentary debate was over and done with. Those who advocated Pakeha settlement appealed to global discourse on the ‘inevitable displacement’ of indigenous peoples and plants and achieved the alienation of forest lands for agriculture. Those who advocated forestry, appealed to global discourse on the connection between forests, climate, flooding, and soil erosion, and achieved afforestation with exotic species. Both sides promoted the progress of the colonial economy. It was an entirely Pakeha debate. A sophisticated body of knowledge, developed over centuries of interaction with the forest, was ignored: the knowledge of Maori hapu.

From 1600 to 1860, case studies of colonially induced ecological change had been published, attempts to counteract the process had been tried, conservationist attitudes had been formed, and sophisticated insight into mechanisms of ecological change had been arrived at. Programmes for environmental control had been

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73. Roche, *Forest Policy*, p 59

74. Roche, *Forest Policy*, p 45

75. Roche, *Forest Policy*, pp 96–99. In one year, 1897, 20,000 acres of forest was cleared on former Crown lands, particularly in Wellington and Taranaki.

76. Roche, *Forest Policy*, p 57

developed in colonies administered by the Colonial Office, on St Helena and the East Caribbean islands; in Mauritius, new social polity and new forms of land use had been developed; the state of India's forests had been a matter for frequent and detailed strategic discussions in London.<sup>77</sup> In New Zealand, however, the Crown had exercised its pre-emptive right to purchase Maori land, as an opportunity to divest Maori of a sustainable forest economy.

In summary, forest policy was not developed in consultation with Maori, and hapu interests in sustained forest harvests were not protected. At 1840 the Crown had already formed its agenda: land for settlement, timber supplies for export, and revenue for the colony would be secured by milling the forests as a single crop, whether or not Maori participated and benefited.

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77. Grove, pp 393, 474–478