

Table III, which follows, summarizes the new areas proclaimed under the Forests Act during the year, and requires little or no explanation. The total in this respect shows a considerable reduction over last year's total—55,253 acres.

TABLE 3.

SUMMARY OF AREAS ADDED TO PERMANENT AND PROVISIONAL STATE FORESTS, 1ST APRIL, 1935, TO 31ST MARCH, 1936.

Region.	Permanent State Forest.		Provisional State Forest.		Total.
	Ordinary.	National Endowment.	Ordinary.	National Endowment.	
	Acres.	Acres.	Acres.	Acres.	Acres.
Auckland	420	..	2,993	..	3,413
Rotorua	1,343	18	2,869	..	4,230
Wellington	660	..	842	..	1,502
Nelson	..	..	805	80	885
Westland	6,004	20	..	1,446	7,470
Canterbury	66	..	..	..	66
Southland	10,247	..	1,607	..	11,854
Totals	18,740	38	9,116	1,526	29,420

2. PROTECTION FORESTS.

Judging by the numerous paragraphs, articles, and letters which have appeared in the press over the past twelve months, it would appear that the public is at last beginning to realize the great part played by our hill-country forests in tempering climatic conditions, regulating stream-flow, conserving water-supply, preventing rapid run-off, erosion, landslides, &c., and the great importance to our national welfare of preserving such forests in their virgin state. The influence which forests exercise upon climate has been the subject of research and investigation the world over for many years past, and even at the present day sharp differences of opinion exist amongst experts on this debateable subject. It may therefore be of interest to the lay reader to quote briefly from the findings of a Committee set up by the Fourth British Empire Forestry Conference which assembled at Durban, South Africa, on 2nd September, 1935.

The Committee in question, comprising ten of the leading foresters of the Empire, were asked to report on "Forests in Relation to Climate, Water Conservation, and Erosion," and, in their report, dealt with the subject under the three separate heads mentioned.

Under the subheading "Temperature" the Committee made the following statement:—

"The physiological and physical processes attendant upon plant-growth reduce the temperature of the air—firstly, because plants transpire water, and secondly, because the sun's heat is absorbed in the process of evaporation. By reason of its composition the living plant substance cannot become heated to the same extent as bare rock or soil. Moreover, the ground under plants cannot become greatly heated by the sun's rays owing to the interception of the latter by the canopy of vegetation. It follows that the effect of forests during the growing-season is to lower the temperature of the air in and above them and, by reducing the absorption of heat by the earth's surface, to lower the soil temperature and correspondingly reduce evaporation. Observations have also shown that forests not only moderate the extremes of heat in summer, but that as a general rule they also modify the extremes of cold in winter. Keeping in mind the fact that it is at the maximum and minimum extremes of temperature that the more serious damage from heat and cold occur it is patent that, apart from any benefits which may accrue from forests in other directions, their effects upon the temperature of a region are highly beneficial to man and beast."

In summing up under "Climate" the Committee said, *inter alia*,—

"Climate has without doubt seriously deteriorated over large portions of the earth by reason of the destruction of the forest. While afforestation may have only slight bearing on the climatic conditions of a country, the progressive destruction and degradation of vast areas of natural forest result in increasing aridity, the dessication of the soil, and the impoverishment of mankind."