40 C.—8.

I noticed in the forests visited that the young trees were healthy and of strong growth. Judging, then, from the character of these, I am sure that if planted close—in rows, say, 8 ft. apart "nurses," very fine plantations could be formed within a few years. Close planting would provide the shelter or cover which is so absolutely essential to the production of well-grown specimens of New Zealand forest flora.

In forming plantations of kauri it would not be necessary to clear the existing bush, because the undergrowth could be utilised as "nurses" until the young kauri-trees were of sufficient size to form their own cover. Overhead cover or shade is another indispensable condition of forest growth that must be looked to, and this is particularly the case with reference to New Zealand timber. Successful kauri, and, indeed, all New Zealand tree cultivation, depends upon strict attention to this primary condition as to "shade" being observed; as the removal of overhead cover (as gaps and clearings are made whenever a forest is opened up by sawmiller, sleeper-hewer, or others) is the real cause of that lack of self-regenerating or recuperating power which is leading to the decadence of New Zealand forests. Shade is absolutely necessary to the growth and propagation of young trees, so that when, as at present, the forests are opened up to an undue extent and the young

trees deprived of shade, natural reproduction ceases.

Nature's teaching, then, in this respect must be borne in mind when the culture of young kauri-trees is undertaken, and, as Nature has been teaching the people of New Zealand this and other lessons for forty years or more, they have only to open their eyes and they will see how these lessons bear out the opinions of the experienced forest scientists whom various Governments have in the past wisely consulted, but whose suggestions they have unwisely disregarded. They will see in the landslips of the Buller, the floods of Napier, and in many other instances the effects of that reckless denudation of forest country which is so strongly condemned. They will recognise that following the ravages of destroying agents the extinction of the forests is so imminent that the Government is appealed to to save the people from themselves, and I trust that my plain speaking and vigorous denunciation of the existing state of affairs will not be permitted to sink into oblivion without effect, as has been the case with the comments of my predecessors, since actual experience

has proved the correctness of the conclusions we have unanimously arrived at.

The kauri-forest question is an exceedingly lively one for any Government to enter upon, since interests are involved. One of the principal industries of the colony is threatened with vast interests are involved. extinction, and it is not, then, too much to ask the earnest attention of the Ministry and the Legislature to so important a subject, and the promulgation of such a measure as will check the reckless vandalism which has been rampant for so many years, and has worked havoc in so many instances; damage to the Town of Napier to the extent of £100,000 through the flooding of the Clive and other rivers being a case in point, since this heavy loss is directly traceable to the denudation of the valleys through which these streams run. In such fashion Nature has avenged in many places the disregard of her laws by early settlers, and sheep-graziers will possibly recognise now that wholesale destruction of timber, which has so seriously injured their fellow-citizens in the case of Napier, must produce like results elsewhere under similar conditions. As in this case the many have been injured to benefit a few individuals, so with the kauri—an industry that gives profitable employment to thousands is being sacrificed for the mere temporary advantage, or simply convenience, of a few gum-seekers and sawmill employés.

It is then surely worth while to change all this, to conserve the valuable kauri which is still available to supply commercial demands, and to assist in maintaining a supply, and further, to take vigorous steps to insure the propagation and protection of young trees in order to provide for the permanence of the industry. There are thousands of acres of gum-lands about Auckland and on Coromandel Peninsula upon which plantations of kauri could be formed. When, too, the existing crop has been removed from the Waitekauri Bush, plantations of young trees could be formed there, which, if enclosed, and carefully tended for a time, would grow and develop well. I mention these places specially, because the gum-digger has already removed from them all the deposits of gum, hence the plantations would not be liable to injury through his presence and operations. All the gum-lands, however, will again grow kauri if replanted under the conditions previously

described.

The Government should at once: (1) Make permanent State forests on Crown lands upon which kauri is found; (2) in suitable places, accessible by water, reserve worked-out Crown gumlands for plantations of kauri; (3) protect by a repressive Fire Act all the kauri forests of the North Island.

The permanent reservation of all kauri-lands, is, however, a matter of the first and gravest importance, since no time should be lost in adopting a strict system of conservation if it is desired that the kauri timber industry shall continue—as it should—for all time a prolific source of revenue to New Zealand.

In support of my arguments and suggestions, I may here quote from the report of Captain Campbell Walker (1877), and, comparing the conditions therein described as obtaining at that time twenty years ago—with those of to-day, we can recognise how little, if any, improvement has been made in dealing with the kauri forests. Captain Campbell Walker says:—

"There remains but little doubt that the sawmillers, hand-sawyers, and splitters have made the most they could out of the forests for their own advantage, and doubtless also that of the purchaser. They have very naturally cut out the best of the timber, and left the rest standing; paid little or no attention to the exclusion of fire from their own or neighbouring blocks of forestin short, conducted their operations on the simplest and most remunerative plan for themselves, but most wasteful and detrimental to the public estate. I do not in any way wonder at or blame them. On the contrary, I think they deserve the highest praise for their energy and enterprise, and the manner in which they have and are supplying the markets.

"The methods of felling, logging, and exploitation or removal from the forest, from the

appliances made use of in handling the gigantic kauri-trees of the Auckland district to the smaller