ABSTRACT OF THE ANNUAL REPORT OF THE DIRECTOR OF FORESTRY, NEW ZEALAND STATE FOREST SERVICE,
For the Year Ended 31st March, 1935.

This report is prefaced by a statement on forest policy portions of which, on account of their general interest, are recorded verbatim.

Exotic Forests. "The cessation of State exotic planting on a large scale now appears advisable. The country already possesses sufficient planted areas to supplement the indigenous forests and to ensure an adequate supply of timber, etc., for the next century. The extension of the exotic forests for the export of timber and other products cannot be justified on economic grounds. The post-war fears of a world timber famine have been definitely proved as groundless, and the following advantages enjoyed by the North European countries which dominate the international wood-goods trade cannot be lightly ignored:

1. The wages of both skilled and common labour being only from one-quarter to one-half of those in New Zealand, manufacturing as well as forest costs are very much lower, those for forest establishment and maintenance being less than one-tenth of those in New Zealand owing to natural regeneration and absence of forest weeds and pests.

2. Lower unit capital investments for all types of wood-converting and power plants and cheaper engineering and chemical supplies than in New Zealand result from low wages and manufacture of machinery and supplies either in their own or immediately adjacent countries. Hydro-electric power is also generated at less than half the cost in New Zealand.

3. Not only is inland transport by river-floating, etc., the cheapest in the world, but foreign freight-rates to the world's markets, including Australia, are for all classes of wood-goods lower than from New Zealand.

The Government exotic forest activities must therefore be concentrated upon the consolidation of those areas already planted. The large-scale planting of previous years has disclosed the limitations and weaknesses of various species, and experimental planting of new species is fundamental to the provision of possible alternatives should any further weaknesses develop at a later stage in the establishment of exotic forests. For similar reasons, experimental planting of exotics in cut-over forests is also contemplated. . . . . . The area of new planted exotic forests—viz., 12,211 acres—is the smallest for nearly a decade, and gives point to the fact mentioned in recent reports that the Service will shortly cease large-scale tree-planting operations. . . . . . The total area of the State exotic forests is now, in round figures, 406,200 acres."

Management of Indigenous Forests. "In accordance with the national policy of managing the indigenous forests to secure their maximum production of timber, the Government has approved of plans for perpetuating the kauri (Agathis australis) forests and for regulating the supply of kauri timber to the local and export markets. Both the remaining virgin stands and the cut-over areas carrying regeneration and advance growth are being brought under forest Working Plans which govern both the extraction of logs and the silvicultural treatment required to maintain the forest in a state of maximum productivity. The first forest to be so treated is the Omahuta State Forest, not far removed from Russell, and permanent extraction routes are now being constructed therein. Dead and over-mature trees will be extracted along with those large healthy trees which can be removed without endangering the subsequent regeneration of the area; and logs disposed of on the extraction routes. A minimum diameter-cutting limit of 27in. breast high has been imposed for virgin stands, which means that, generally speaking, only in the young forests where thinning is required will smaller trees be removed. The more recent examinations and inspections of the kauri forests indicate beyond all possible doubt this theory not merely of preserving forests most zealously guards in its forests as national monuments, but also of maintaining in their entirety the kauri forests in the full vigour of their growth to yield an everlasting supply of this world-famous wood."

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"Reconnaissances in the rimu (Dacrydium cupressinum) pole-type forests of Westland are also being made to locate suitable demonstration-forest units which may be placed under Working Plans, as in the case of the kauri forests, and so managed as to maintain mills in permanent production. A similar search for demonstration units is being conducted in the silver-beech (Nothofagus Menziesii) forests of Southland, and it is anticipated that within two years Working Plans for both rimu and silver-beech forests will be in active operation."

Protection Forests. "Though to-day the national forestry effort owes its public support largely to the fears engendered by regional timber shortages, nevertheless it derives its greatest importance from the contribution of the forests to the well-being of the agricultural community. Immeasurable as it may be in tangible money terms, the influence of the forests upon streamflow and soil stability, etc., is none the less real. To the average man in the street spasmodic floods here and there are naturally regrettable, but just as definitely they are accepted as natural phenomena, if not as acts of God, certainly as nothing of import to concern the public mind. The same apathy characterizes every other phase of forest devastation and abuse. The attitude of even direct sufferers is little better, a state of mind, perhaps, resulting largely from an unfortunate element of instability in land-ownership. It is only a minority of the farming community which continues in sufficiently long occupation of any one area to appreciate fully the slow but sure effects of forest-devastation, to watch landslides develop one by one, to find springs ceasing and reducing their flow, and to see the rivers aggrading their beds and wandering across the rich bottom lands, carrying the best soil out to sea. All are long-time effects, and it is the exception rather than the rule to connect such occurrences directly with the odd scrub and forest fire, the ravaging deer, and other agencies of forest-destruction. These forest abuses continue to take an ever-increasing toll of practically every county in the Dominion, yet the limitations of the individual mind render it difficult to bring into public focus the cumulative effects of these individual experiences. Viewed in their proper perspective, however, the effects of forest-devastation constitute the largest single item of waste in the agricultural effort of the community and merit considerably more attention both from the public and more particularly from those directly affected."

During the year under review 850,000 acres of State forests have been added to the area permanently dedicated for protection against unfavourable climatic conditions, erosion and draught.

Utilization. An appreciable increase in the production of sawn timber during the year under review is recorded; this is accounted for by the active demand for rimu both on the Australian and domestic markets. The total export 35 million feet board measure for 1934 equalled the exports during the boom period 1927-29. The shortage of seasoned timber at the beginning of the year, together with the building subsidy scheme of the Unemployment Board, resulted in a marked stimulus to the building industry throughout the Dominion. Imports amounted to 17 million feet board measure, of which 10 million was Australian hardwoods.

"No other feature of forestry work is so susceptible to exaggeration as the intensely practical problem of utilizing the growth of the indigenous and exotic forests. One writer estimates that the Dominion will have an exportable surplus of 500,000,000 ft. board measure of exotic timber within ten years. Another estimates that the insignis pine forests alone will yield annually 1,200,000,000 ft. board measure of sawn timber. All these are fantastic calculations which do not take into account the already-failed areas of this species and the not unlikely failures of still other species, against which the Government has endeavoured to protect the general success of its own operations by the use of a wide diversity of species, most of them much slower growing than the insignis pine. If, eventually, the whole of the planted areas of the Dominion produce an average mean annual growth of 100 cubic feet of wood per acre, the country will have achieved a result which has not been duplicated with exotics elsewhere in the world. As indicated in previous reports, it is not anticipated that any difficulty will attend the utilization of such exotic soft-woods as may be successfully grown. Even in the face of
a poor utilization technique the demand exceeds the supply, and must continue
to do so for many years. Actually, as the suitability of the exotic timbers for
house-framing, sarking, sheathing, and sub-flooring, etc., becomes appreciated the
markets will expand rapidly and absorb large quantities of wood at present ob­
tained solely from the indigenous forests."

In the Rotorua region minor utilization thinnings were carried out, a ready
market being found for firewood, power poles, and mine props (*Eucalyptus spp,
and *Pinus austriaca). At the Dusky State Forest (Southland) "heavy thinning
and extraction for milling purposes was completed over an area of 73 acres. The
average degree of thinning was 54% of the average stand, 1,300 trees per acre
being reduced to approximately 600; these thinnings are being utilized for
boxmaking by a sawmilling Company and 81,289 cubic feet of pine timber were
extracted during the year under review; from the same plantation 102 cords of
firewood were sold to the Railway Department."

The proper-seasoning of timber is recognised as the most important practical
problem of the timber trade. Particular attention has been paid to rimu and silver­
beech and it has been demonstrated that whereas rimu may be kiln dried "green
off the saw," silver-beech requires to be air-dried to 35 per cent. moisture content
before being subjected to kiln drying. Satisfactory results have been obtained
from the creosoting of larch and pine, treated 13 years ago, and it is proposed to
creosote 1,000 fencing posts from plantation thinnings.

The Mining Amendment Act, 1934, provided for compensation for damages
resulting from mining activities in State Forests; in view of this enactment it is
of interest to record that applications for mining privileges in State Forests have
increased from 700 in 1933 to 1,149 in 1934. This increased activity is attributed
to the subsidy granted to miners by the Unemployment Board and to the high
price of gold.

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