

The kauri is practically all gone, and a great proportion of what is left is State-owned. The quantities of totara and matai are not considerable, and are chiefly concentrated in the central part of the North Island. The normal life of the white-pine resources is not more than twelve years. Rimu to-day is the principal economic softwood timber, but this timber must gradually give way, in forty years, to plantation and hardwood timbers. The total quantity of economically available softwoods, after deducting all areas of inaccessible, protection, and climatic forests is 25,000,000,000 ft. board measure. The hardwoods will only function in the national timber problem as a subsidiary source of supply because of their general distribution in the mountain and plateau regions, and because owing to their normal refractory qualities they do not lend themselves readily to industrial, constructional, and building uses. (Over 90 per cent. of New Zealand's demand, as of all civilized countries, is for softwood.)

Forest plantations, carrying in the main immature growing forests, to the extent of 141,250 acres (State-owned 62,945 acres, balance held privately and by local bodies) yield at the present time only small (though gradually increasing) supplies.

*Annual Consumption of Wood for all Purposes for a Current Average Year.*

(In Cubic Feet of Finished Produce.)

| Classification.     | Building Trade. | Industrial Consumption. | Railway Requirements. | Agricultural or Rural Consumption. | Total.     | Percentage of Total Consumption. |
|---------------------|-----------------|-------------------------|-----------------------|------------------------------------|------------|----------------------------------|
|                     | Cub. Ft.        | Cub. Ft.                | Cub. Ft.              | Cub. Ft.                           | Cub. Ft.   |                                  |
| Sawn timber ..      | 11,200,000      | 6,600,000               | 1,700,000             | 7,500,000                          | 27,000,000 | 33.2                             |
| Fencing and farm .. | ..              | ..                      | ..                    | 16,100,000                         | 16,100,000 | 19.8                             |
| Firewood ..         | ..              | ..                      | ..                    | 29,000,000                         | 29,000,000 | 35.7                             |
| Mining, &c. ..      | ..              | 7,000,000               | ..                    | ..                                 | 7,000,000  | 8.6                              |
| Miscellaneous ..    | ..              | 2,200,000               | ..                    | ..                                 | 2,200,000  | 2.7                              |
| Totals ..           | 11,200,000      | 15,800,000              | 1,700,000             | 52,600,000                         | 81,300,000 | 100.0                            |

With the present population at 1,350,000 the general annual *per capita* consumption of sawn timber alone based on the foregoing table of average conditions is 240 ft. board measure. (It is interesting to note that the Australian unit consumption is only 153 ft b.m., and that over 42 per cent. of the southern continent's requirements are imported, against the importation by New Zealand of only 19½ per cent. of her needs.)

A serious forecast, therefore, of future national timber requirements based on the normal trend of population increase, and on the development and expansion of intensive agriculture and of secondary industry, over a period of years, indicates that the gross national consumption of sawn forest produce (the index factor) by the year 1965 will be 675,000,000 ft. b.m. per annum (other products in proportion). Our virgin softwood resources will be economically exhausted by the period 1965-70.

Is it possible to provide internally for our annual needs, so vital to New Zealand's orderly progress and future prosperity thereafter? Yes, by the application of the tried and proper methods of forest-culture. The State plantations will require to be of such dimensions as to take over the major burden of supplying the raw material at that time. At present there are 63,000 acres of State plantations. *It is recommended that this acreage be increased to 300,000, formation to be completed by the year 1935.*

The forest capital of these plantations and of other forests will, by the year 1965, yield an annual crop of 700 million feet b.m., as follows:—

| Source of Supply.                                        | Annual Timber Yield.<br>Feet b.m. |
|----------------------------------------------------------|-----------------------------------|
| State plantations .. .. .                                | 450,000,000                       |
| Indigenous forests .. .. .                               | 50,000,000                        |
| Local body, proprietary, and private plantations .. .. . | 150,000,000                       |
| Importations .. .. .                                     | 50,000,000                        |
| Total .. .. .                                            | 700,000,000                       |

With a consumption in the year 1965 of 675 million feet b.m., there is thus a safety margin of supply of 25 million feet b.m. The total outturn from the managed forests will, however, gradually increase from that date onwards to 1,000 million feet b.m. per year. The total cost of establishing the 237,000 acres of State plantations during the period 1925-35 should be not more than £1,250,000, and this sum should be all secured from contemporary and current State Forest Service receipts. The annual harvest from the State plantations for the year 1965 should return £1,125,000 per annum, gradually increasing to £1,500,000 (a conservative estimate), a sum which will aid very materially in reducing the Dominion's general taxation.