

## 4. FOREST RECONNAISSANCE, INVENTORY, DEMARCATION, AND SURVEYS.

Fieldwork in connection with the revised inventory of forests of the Dominion received attention in all forest-conservation regions during the year, and covered a total area of 1,025,000 acres of State and provisional State forests. The major portion of this area is situated in the Westland Region, the Conservator of Forests reporting that 50 per cent. of the State Forest areas having been dealt with.

There are approximately 12,592,000 acres of native forest areas to be dealt with, of which 7,195,000 acres are State and provisional State forests. These figures will indicate the magnitude of the undertaking to compile an inventory of the Dominion's forest resources. In Regions other than Westland the progress recorded can be regarded as satisfactory, especially in view of the abnormal projects carried out during the period in connection with the exotic plantations.

The attention of field officers had to be concentrated on this latter work, consequently forest inventory operations were at a minimum. Moreover, the work was further retarded by the unseasonal weather during the early summer.

An analysis of the present data discloses, as was anticipated, that the extensive areas of State forests in the high country contain large areas of protection forest and open areas and comparatively small areas containing merchantable timber. An example is a State forest of 65,000 acres situated on the eastern slopes of the Ruahine Ranges which is classified as follows:—

	Acres.
Protection forest area .. .. .	54,096
Open fern and manuka country .. .. .	8,839
Merchantable forest .. .. .	2,065
Total .. .. .	65,000

It will therefore be apparent that in the interests of the timber industry and future developments an accurate knowledge of available timber-supplies is a matter of great importance.

Incidental to afforestation operations, topographical surveys covered 43,295 acres, while 49,600 acres were subdivided into blocks and compartments together with the necessary firebreaks and access roads.

In accordance with the pronounced policy in respect to land-utilization, close contact has been maintained with the Departments of Lands and Survey and Agriculture in respect to areas proposed to be utilized for afforestation. Joint inspections have been made of various areas, totalling approximately 133,000 acres, and with the exception of a few small areas comprising 586 acres the examining Committee decided that the land was of low agricultural value and should be utilized for afforestation purposes.

## 5. FOREST-PROTECTION.

*Fire Districts.*

Fire districts constituted under the Forests Act, 1921-22, and its amendment now number thirty-eight, and cover an area of nearly 2,000,000 acres. Of this number four districts were constituted at the requests of local bodies and two to meet the needs of private afforestation companies. It will thus be seen that the value of fire districts as a means of regulating and controlling forest-fires and preventing indiscriminate burning is recognized outside the Forest Service.

This is further borne out by the fact that from time to time requests have been made to the Department from private owners of flax areas grown for commercial purposes to have these constituted fire districts. At present there is no statutory authority to do this, but the question of extending existing legislation in the direction indicated is receiving consideration.

## 6. FOREST-FIRES.

Again it is pleasing to report that, owing to a very favourable season, the fire-hazard was low, and with the exception of two fires, one at Kaingaroa (Rotorua Region), where 132 acres of two-year-old trees were destroyed, and the other at Longwood (Southland Region), where 252 acres of young trees were likewise burned. The damage caused to State indigenous forests was practically negligible. As usual a number of settlers' burning-off fires got out of control, but these were in every instance extinguished without serious damage to green bush. Realizing as it does that the forest has no greater enemy than fire, the Service, during the summer months, leaves no stone unturned to safeguard the great national asset with which it is entrusted, and although the wet summer of 1929-30 largely accounted for the favourable fire-hazard and the consequent immunity from fire damage so far as the forests were concerned, yet numerous small fires did occur, and had they not been detected and extinguished in their incipient stages by vigilant fire patrolmen, more serious results would undoubtedly have occurred. In one case of lighting a fire without a permit in a fire district in Wellington Region the offender was convicted and substantially fined.

The Cheney spark-nullifier has been a contributing factor in minimizing fires from tramway locomotives, log-haulers, &c. This device is being used by all sawmill-operators in State forests.

The reports of the various Conservators of Forests show that the number of fires in State forests was twenty-eight, while the total area burnt was 1,642 acres, the major portion of which was bracken and scrub country and cut-over bush land.