

Of this area, 6,237,667 acres, being 67·87 per cent. of the total State forest area, are permanently reserved (see Appendix I).

28. *Changes in Status*.—Only a small area was affected under this heading, consisting mainly of 423 acres withdrawn from reservation for settlement purposes in the Taranaki district and 332 acres for scenic purposes in the Hawke's Bay district.

CHAPTER IV.—FOREST MANAGEMENT

29. *Surveys*.—In the demarcation of sawmill areas, boundary surveys were carried out on 172 areas, totalling 17,877 acres, and timber-reconnaissance surveys were completed over 8 areas, containing 21,194 acres. Topographical surveys of exotic forests covered 382 acres and forest-type surveys 172 acres.

The use of aerial photographs has been considerably extended, especially in connection with the national forest survey, resulting in an appreciable increase in the orders for photographs placed with the contractor for this work. With the termination of the war it has been possible to complete the photography of some of the long-outstanding contracts, but owing to the limited season for the satisfactory photographing of forested areas, and also to other factors, the progress made has not been as great as could be desired. During the year 9 mosaic copies and 1,690 prints were added to the library, and 30 mosaic copies were supplied to the conservancy offices for their use. The Forest Service library of aerial photographs now contains 42 mosaics covering 1,400 square miles.

30. *Mapping*.—The continued shortage of experienced survey draughtsmen has prevented much being done towards overtaking the accumulation of work or in the preparation of new record maps. Work for the year was therefore mainly confined to the recording of operations and the preparation of plans and maps for current work. Two stock maps were redrawn, and 1 communications and 11 operational maps were prepared. Thirteen forest atlas sheets were renewed, 30 new plans were recorded, and additions were made to 29 stock and operational maps. Eight maps of the Rotorua-Taupo area were prepared for use by the aerial fire patrol.

31. *Forest Management Staff*.—Two professional officers returned from military service with forestry companies overseas and were posted to special duties, one to take charge of the national forest survey and the other to forest pathology. An M.Sc. graduate in pure science also returned from service with a forestry company, and, with experience of the survey of the woodland resources of Great Britain, was appointed to the professional staff and posted to duty with the national forest survey. Duties connected with timber control, post-war timber requirements, rehabilitation, recruitment, and training once more absorbed a large part of the time of the professional officers; but, despite this, good progress was made with growing-stock assessments, and volume and yield tables were compiled for unthinned insignis pine in the Rotorua district.

32. *Forest Working Plans*.—The five year period of the working plan for the kauri-working circle expired on 31st March, 1946. Of a prescribed allowable felling of 680,000 cubic feet of standing dead kauri, only 180,000 cubic feet were actually cut, the corresponding figures relating to living kauri being 1,220,000 cubic feet and 1,020,000 cubic feet respectively. The allowable cut for normal, peacetime uses amounted to 520,000 cubic feet, and this volume was actually taken, though largely used in connection with the war. The additional allowable cut for war-timber requirements was 700,000 cubic feet, and of this 500,000 cubic feet was actually removed.

In the years 1942–43 and 1943–44, both crucial years in the Pacific war theatre, it became imperative that overcutting of kauri be sanctioned for war requirements, and in those two years the planned cut was exceeded by 225,000 cubic feet. The quantity of living kauri extracted in 1945–46 dropped to the low figure of under 50,000 cubic feet, while that of dead or dry kauri rose to nearly 70,000 cubic feet.