

And, under "Erosion," they commenced their report thus:—

"It is unnecessary for us to recapitulate all that has been stated on this aspect of the subject during the debate. It is admitted by all authorities on erosion that one of the greatest calamities which have overtaken mankind has been the destruction of the forest and the consequent erosion of the land surface. This has already destroyed the fertility of many lands, and is at the present day exercising a powerful influence on the destiny of the peoples.

"Erosion results from the misuse of the surface-covering of the earth, whether it be by the destruction of the forest which covered it, by the misuse of arable or pasture land, by bad methods of cultivation, by burning, or by overgrazing."

One is tempted to quote further extracts from this very interesting report, but enough has been said to show that this Dominion must be unceasing in its efforts to protect and conserve its remaining protection forests; if fires—the worst enemy of the forest—and herbivorous animals—the second worst danger—be kept out, nature may be relied on to do the rest. Failure to take adequate and prompt measures to combat these two enemies can have only one result; the history of many of the older countries of the world will be repeated here—the turning of many thousands of acres of smiling country into arid desert wastes. In concluding this portion of the report it seems appropriate that one should quote the resolution adopted by the Conference under the heading "Forest Influences." It reads as follows:—

"The Conference approves the report of the Committee on Forests in Relation to Climate, Water Conservation, and Erosion (Appendix No. III).

"In view of the important and beneficial influence of forests on water conservation, on soil erosion, and on the maintenance of equable climatic conditions, the Conference urges on the Governments of the Empire the necessity of maintaining under forest cover catchment areas and lands particularly liable to erosion or dessication.

"The Conference also urges the importance of scientific investigation of all aspects of the subject, both in South Africa and in other parts of the Empire, and recommends that a copy of the Committee's report and its enclosures be submitted for the special consideration of the Government of the Union of South Africa."

3. FOREST RECONNAISSANCE, TIMBER CRUISING, SURVEYING, ETC.

Indigenous Forests.

Forest Reconnaissance and Forest Inventory.—Field work was carried out as follows:—

- (1) In the kauri areas of Herekino and Omahuta State Forests.
- (2) In Westland 10,000 acres were explored.
- (3) In Southland areas totalling 8,741 acres, containing 49,000,000 board feet, were examined.
- (4) In Rotorua Region 4,000 acres of timber were explored in order to obtain valuations for the Native Land Court.

Demarcation.—A statutory survey was made of some 3,952 acres, having fifteen miles of boundary-lines in the Rotorua Region.

Statutory surveys were also made of three small areas in the Auckland Region.

Forest Roads.—A total of 272 chains of roads were constructed in the indigenous forests.

Timber Cruising.—In State and provisional State forests 12,900 acres containing 113,180,000 board feet were cruised. Cruises of 5,640 acres, containing 37,600,000 board feet, were made for other Government Departments, and 1,586 acres carrying 9,130,000 board feet were cruised for private owners.

Topographical Surveys.—Special topographical surveys comprising some 8,000 acres were made in Omahuta and Herekino forests. The object of these surveys apart from determining contours, creeks, &c., was to fix the positions of forest types in the kauri forests in order to facilitate the preparation of forest working plans for the permanent management of these forests.

Exotic Plantations.

Topographical Surveys.—Some 11,000 acres were topographically surveyed in Rotorua and Nelson Regions.

Road Construction.—Approximately twenty-one miles of roads were constructed. These roads will serve as future extraction routes for forest produce.

Preliminary Management Surveys of Exotic Forests.—Owing to the pressure of other urgent field work, no further progress has been made, but sixty field plans of Balmoral and Hanmer Plantations have been prepared in order that officers can proceed with the field inspection when a suitable opportunity occurs.