

MINISTER'S STATEMENT.

THE fact that the promotion, co-ordination, and active prosecution of scientific research in relation to the industrial and social needs of the community has been undertaken as a State activity in every progressive country is a sufficient indication of its importance in national progress. The term "scientific research" covers an indefinitely wide sphere of activity, and it is well to emphasize the nature and scope of the work of the Department of Scientific and Industrial Research in New Zealand and its importance in relation to development of national resources—not excluding the people themselves for, as one authority has said, "Wherever and whenever new science touches society it creates a disturbance which has hitherto been mostly accepted as inevitable, but is often a high price to pay for progress."

The activities of the Department are divided broadly into two sections—viz., the provision of essential scientific services to the Government, and the fostering of scientific research in relation to the needs of special branches of industry.

In the former section are included the Dominion Laboratory, Meteorological Office, Geological Survey, Soil Survey Division, and the Plant Research Bureau with its several Divisions. The Dominion Laboratory includes among its many scientific services to the community and the Government the examination of many hundreds of milk samples in the course of each year to ensure that the desirable standard of the purity of the milk-supplies is maintained; the analysis of many and various samples of food and drugs to preserve the already high standard of quality of these commodities; the examination of diverse materials for the Police Department; and the regular examination of materials purchased by Government Departments to ensure that they comply with specifications. Recently much work has been done for the Housing Department in connection with the examination of a wide range of building materials, with the result that valuable advice has been given as to the durability and general standard of quality of the materials used. In addition to this indispensable service work, the Dominion Laboratory is also carrying out industrial research work particularly in relation to the phormium, kauri-gum, and fruit industries. For example, experiments on the gas storage of New Zealand apples with a view to improving their keeping-qualities have shown definite application of this method, and an investigation of the curing of lemons which is almost completed has produced results of real value to the industry in indicating the methods by which optimum results may be obtained.

The work of the Meteorological Branch has recently increased very greatly in scope and importance, as a result of the rapid expansion of commercial aviation within New Zealand, and the development of trans-oceanic air services. The provision of frequent and accurate weather forecasts is indispensable for the safe running of air services, and the efficiency of the organization which has been built up in New Zealand within a very short period compares very favourably with similar organizations overseas.

The Government's proposals in regard to the establishment of an iron and steel industry, and the recent activity of oil-prospecting, have brought into relief the importance of accurate data on geological structure and mineral resources of the Dominion which is being collected by the Geological Survey Branch of the Department. The geophysical surveys carried out by the Department during the past few years, the results of which are in final stages in the press, have also provided data which have considerable value in connection with prospecting for oil, gold, and other minerals. The important point is that the study of our natural resources must be carried out thoroughly and accurately so that data are available as a secure foundation upon which we can take action and conserve our resources wisely as necessity arises, and with as little lag as possible behind world developments.

Soil survey is recognized the world over as basic in regard to land development and utilization, and this need was recognized and met by the formation of a Soil Survey Division of the Department, which has already mapped a large area of New Zealand soils. During the past year an extensive programme of work was carried out in Hawke's Bay, North Auckland, Blenheim, West Coast, and Banks' Peninsula, the results of which will be published shortly. The problem of soil erosion and land deterioration in New Zealand has recently come into prominence, and in this connection the Soil Survey Division has contributed important data collected in the course of soil surveys in various districts of New Zealand, together with recommendations for remedial measures based on close observation of the conditions in affected areas.