

not lost, as it is at present, through being allowed to flow over the denuded surface into the sea, but was received by the country, in all its abundance, into her bosom, where she stored it in her impervious potters earth, and so was able to discharge the drainage of the heights into the bottoms in the form of springs and rivers with an abundant volume and wide territorial distribution."

#### *Soil Erosion in the Very Recent Past*

In N.Z. in the late 1940's, some officers of the Soil Bureau made a reconnaissance survey of the extent and degree of soil erosion in the High Country of the South Island and a soil erosion survey was made of the southern half of the North Island.

New Zealand is a land of 66 million acres—44 million acres are used for agricultural purposes, and 22 million acres comprise indigenous forests (11.5 million acres), National Parks and Reserves (5.2 million acres) and a large unspecified area comprising mountain tops, lakes, rivers, towns, boroughs and roads (5.3 million acres).

In the southern half of the North Island the area surveyed was 15,250,000 acres. Little erosion was found on 5,648,000 acres or 37% of the area surveyed, on 4,270,000 acres or 28% of the area soil erosion was of sufficient degree to warrant the application of soil conservation practices to check the gradual loss of soil and the remaining 5,332,000 acres or 35% was mostly in forest, much of which was potentially erodable soils.

In the South Island high country 10,393,500 acres were surveyed. There was no erosion to slight erosion on 3,413,900 acres, or about 33% of the area, on a little over 50% of the area, 5,203,000 acres, moderate to extreme erosion had occurred and bare rock and scree covered 1,776,300 acres, or almost 17% of the area surveyed.

In general, too much forest has been cleared, and the problems of soil erosion have been created as a result of the great decrease of protective forest and grass-land cover on the steepplands in the upper reaches of the rivers.

In 1941, the Soil Conservation and Rivers Control Act was passed in N.Z. The purpose was to make provision for the conservation of the soil resources and for the prevention of damage by erosion and to make better provision with respect to the protection of property from damage by floods.

This Act provided for the setting up of a Council which is the parent administrative authority in Wellington and decides on policy and the allocation of taxpayers' money to the different works throughout the country. The Act also provides for Catchment Boards, which are the soil conservation authorities in the different catchment districts. A Catchment Board consists of not less than 8 and not more than 15 members in which the number of elective members shall exceed the number of non-elective members. The administration of this Act is of particular interest in that the local Catchment Board comprises appointed members from State Departments and the other members are elected triennially by the local ratepayers in a district. The districts of the 13 Catchment Boards cover about 60% of N.Z. Within these districts Catchment Boards are the organisations authorised and charged by the people to make provision for the conservation of the soil.

In addition there are the Waikato Valley Authority and the Waitaki, the Northland and Eastern Bay of Plenty Commissions which have duties and responsibilities similar to Catchment Boards.

The method of defining districts by river catchment boundaries so that a whole river system is within the district of one administrative authority is an admirable one. Great credit is due to the men of 1941 who had the vision to