

The flooding of the adjacent lands is due to the fact that at certain points on the river the present channel, unassisted by levees on the river-banks, is of insufficient sectional area and slope to discharge the flood-waters. The erosion of the banks is due to their very friable nature, and to the removal of the protective covering of natural vegetation, as already referred to.

REFERENCE No. 2.

To ascertain the nature and extent of the damage done to the lands adjacent to the said river, and what area of land is affected by such floods or erosion, or both, and whether it is practicable at reasonable expense to prevent such flooding or erosion, or both, either wholly or partially.

In the case of the Aparima River, in common with that of other rivers, the damage is of a manifold nature :—

(a.) The actual erosion of the banks, causing a direct loss of land. On the Aparima it appears that this is the worst form of damage.

(b.) The overflowing of the banks, causing damage to the improvements on the land and the crops being grown thereon. Apparently such floods as have occurred in the past have not taken place usually at such a stage in the growth of crops as to lead to great loss, and the flood-waters do not lie on the ground for a length of time sufficient to kill vegetation. The general consensus of evidence was to the effect that the settlers did not object very much to the overflowing of their farm lands by flood-waters. The same view, however, was not held by householders in the town of Otautau regarding flood-waters overflowing the town.

(c.) The roads in the flooded area are liable to have a certain amount of the metal washed off them. This is not a very serious item, for according to the County Engineer £100 would cover all the damage from this source during the last nine years.

(d.) The railway-line has been submerged occasionally, and portions of the ballast washed off. The Railway Department has also found it necessary to increase the number of flood-openings. Apparently the Department is not at all exercised over the position at the present time.

The damage in the town of Otautau consists chiefly of injury to floors and foundations of buildings, and also to carpets and household goods which are not removed above the level of the floods. There is also the interruption of business, and the inconvenience and hardship to the residents and shopkeepers, who are compelled to remove their goods and merchandise to the habitations of more fortunate neighbours or into the upper stories of their own dwellings.

Loss by erosion : It was stated in evidence that several hundreds of acres of land had been lost by erosion. Without detailed survey it is impossible to ascertain the exact amount, but your Commissioners are inclined to the belief that 500 acres represents the full amount of land lost by erosion. Mr. George Seatter has lost 140 acres out of a holding of 254 acres ; Mr. W. Brown has lost considerably over 100 acres out of a holding of 190 acres ; while other settlers have lost smaller areas.

With reference to the question as to whether it is possible to prevent the flooding of the Aparima River and the erosion of its banks at reasonable expense, your Commissioners are of the opinion that on many portions of the river the flooding is not of sufficient importance to justify, from an economic point of view, the erection of any protective works, and that the erosion of the river-banks should be dealt with by the individual farmers on their own river-frontages. This has been done successfully by some of the settlers at reasonable cost, and there is no reason why the other farmers should not do likewise.

It will be necessary, however, for any works to be under the control of a proper authority, in order that the protective works may not take such a form as will tend to detrimentally affect other farmers.

There may be exceptional cases, however, where it would be advisable that the controlling authority should carry out the river-bank protective work in order to