

Avarua Water-supply.

At Avatiu 1,000 ft. of 2 in. pipes were laid, the 1 in. pipes taken up, and several more houses connected. For this year a filter-bed is required, and the intake placed higher up the creek, so as to be above any cultivation near the creek; also the pipes connected from foot of Residency Hill to main-road pipe, so as to give a better water-supply at the eastern end of the settlement.

Arcorangi Water-supply.

A small concrete dam was made on the creek and 2 in. pipes laid through the settlement, a distance of about $1\frac{1}{2}$ miles. About seventy houses were connected with the main pipe. The fall from intake to main road at the middle of the settlement is 183 ft., which works out at about 1,200 gallons per hour. This, with some care, should be ample for a population of about four hundred.

Ngatangia Water-supply.

During this year it is proposed to lay on the water to the settlement of Ngatangia, for which purpose it is proposed to place a sum of £750 on the estimates.

Tanks.

It is proposed to build tanks in every island in the Group where there are no permanent streams, and for this purpose a proper framing has been obtained from New Zealand. Each tank will be of reinforced concrete, and will be 10 ft. in diameter, 10 ft. high to springing of dome, inside measurement, and will hold 5,000 gallons. The top of each tank should be at least 6 ft. above ground-level on low-lying islands, so as to protect the fresh water should a sea go over the island. It is proposed to place a sum of £600 this year on the estimates for tanks in the Northern Islands.

Government Public Works Store.

A Government store was built at Rarotonga, 30 ft. by 20 ft., with two floors. The cost exceeded the estimate, as it was counted on getting the material from the old hospital, but this was not allowed. All the material from the old hospital was destroyed by fire for sanitary purposes.

Aitutaki Shed and Tram-line.

A shed 64 ft. by 30 ft. has been erected at Aitutaki, with tramway-lines down the wharf, and six trucks have been furnished. The fruit for export will all now be stacked in the shed for inspection before shipment.

Mangaia Reef Passage.

A passage was blasted out of the solid coral rock, about 450 ft. long and of an average width of 25 ft. and a depth of about 3 ft. A bar was left at the entrance. Blasting was also done outside the main reef on the outer part where the sea breaks first. This work is not yet completed, but I believe has been of great service so far as it has been done. The bar still requires cutting down, the inside deepened and the outside opened out more.

Roads and Bridges.

At the beginning of the year the Natives turned out and made a fairly good job of the roads in Rarotonga. Since then very little has been done. I would suggest that the whole of the people be called out every three months to mend the roads. Formerly the Natives used to work on the roads the first Monday in each month. At the same time, I hope a sum will be placed on the estimates this year for the upkeep of roads and bridges. One small bridge was built; there is still one to do to complete the bridging of the main road round the island.

Atiu Landing.

The southern landing opened out by H.M.S. "Clio" in 1904 is only workable, I believe, in very fine weather. The landing mostly used is to the north of this one about 90 yards. It seems to me that the reason the northern landing is the better of the two is that the deep water comes right up to the edge of the reef, and therefore the sea does not break until it gets to the main reef, while in the southern one there is a patch of coral outside the main reef which causes the sea to break before reaching the main reef. The southern landing is the more conveniently placed, as it is opposite a sandy beach on the land taken by the Government for a landing-place. There are three ways in which the landing might be improved: First, by opening out the present cut made by the "Clio" to the beach; second, by making a road round to the northern landing and having wires to carry the fruit from cliff to edge of reef; third, by making a road round to the northern landing, cutting down the cliff, say, 16 ft., at seaside and sloping up to form a road, and the material blasted out to make a wharf out towards the edge of the main reef, on which might be laid portable tram-lines.

During the day I was at Atiu it was very fine weather. I had not a chance of seeing the southern landing in bad weather, but from what I could gather, as it is at present, it is very bad, and cannot be used when there is anything of a sea on. If the outer patch were blown away I have no doubt that the landing would be greatly improved. Also, as the bar on the outer edge has been cut away, the opening made would have to be enlarged to be of much use, and the passage cut right up to the beach, and the stone blasted out thrown up on each side to form a breakwater, as has been done at Mangaia. The distance from the present cut to the beach is about 60 yards. It is difficult to estimate what the passage would really cost, as there is the outer patch to remove, but I believe for £400 the passage could