

*Hospital Nurse's Quarters.*

During the year quarters were erected for the hospital nurse and fitted with conveniences for cooking for the Hospital patients.

*Ngatangia Water-supply.*

A water-supply for the settlement of Ngatangia was laid down during the year, and some forty-five houses were connected by service-pipes. The main pipe from intake on the creek to main road at settlement is 3 in. in diameter, being from intake to main road at settlement 7,850 ft., with a fall of 222 ft. The pipe will give about 3,900 gallons per hour, with a pressure of 96 lb. per square inch. The main along the main road each way is 2 in. in diameter.

*Avarua Water-supply.*

The main pipe is 6 in. in diameter, of spiral steel, manufactured by Messrs. Mephan, Ferguson, and Co., New Zealand. The length of the main pipe at present is 6,347 ft., having a fall of 133 ft. from present intake to the main road at Government Buildings near the beach, and there has a pressure of about 58 lb. per square inch. It is now proposed to take the water from further up the creek, about 1,000 ft. in length, which would increase the head to about 170 ft. and have a filter-bed something after the one at Papeete, Tahiti. Or it may be considered better this year to go, instead of 1,000 ft., say about 2,000 ft. further up the creek, and increase the head to at least 200 ft. and do without the filter-bed for some time yet, and increase the mains along the main road to 3 in. (as much as funds will allow), and use the present 2 in. mains for the water-supplies of the settlements of Muri and Matavera. I would prefer this. At any rate, I consider that a sum of £500 should be placed on the estimates to improve the Avarua water-supply.

*Island of Takutea.*

The Island of Takutea is Government property, and lies about twelve miles to the north-west of Atiu. It is 302 acres in area to high-water mark, of which some 227 acres are fit for and have been planted with coconuts at 25 ft. apart, sixty-nine plants to the acre (15,663)—say 15,000 coconut-palms. The planting was completed some three years ago. The coconuts are very much in need of the scrub being cut down, and I submit that a sum of £200 be placed on the estimates to put the island in proper order. The island, as was proposed some years ago, might be turned into a settlement for prisoners of long terms of sentence, and they then could keep the place in order. In a few years this island, if looked after, will become a valuable property and form a good source of revenue, as it should produce at least 100 tons of copra per annum.

*Drainage of Maraerenga Swamp.*

I have taken levels of the swamp and find that an outlet can be got where the swamp formerly drained out into the creek on the eastern side of the Government Buildings. The swamp at present receives the drainage from a watershed of roughly 200 acres with practically no outlet, carried into the swamp by three watercourses. The most eastern watercourse has an opening into the sea, and if cleared and deepened would run part of the water at present coming into the swamp directly into the sea. The other two must come through the proposed drain to be cut to drain the swamp. The lowest level of the swamp is 3 ft. above high-tide level. The main drain, some 60 chains long, and cross-drains with four new culverts and one new small bridge on main road, would cost at least, £1,000. And I submit that a sum of £500 be placed on this year's estimates to do part of the work.

I also submit that the Government should acquire the swamp area, which is about 20 acres, and when drained might be turned into an experimental farm.

*Other Necessary Public Works.*

A proper prison is necessary. Another shed is necessary at Aitutaki, to be partly closed in, to form a bond for inward cargo. Shipping facilities are required in the outlying islands in the way of sheds and roads connecting the landings.

I have, &c.,

The Resident Commissioner.

H. M. CONNALL,  
Engineer, Public Works.

SIR,—

Rarotonga, 13th April, 1912.

I have the honour to present my second annual report on the fruit industry of the Cook Islands for the year ending 31st March, 1912.

My remarks will mainly be directed to the industry in Rarotonga. I have been unable to visit any outside islands during the year under review, as my presence was necessary in Rarotonga to deal with the fruit by the Wellington steamer, which departs for New Zealand while the Auckland steamer is traversing the Group. At the present moment there appears to be no prospect of a change in the steamer's time-table, which would permit me to give attention to the industry in the outlying islands this coming year.