

of plant now on hand is reasonably sufficient for the scale of operations in progress, but it will be necessary to ensure that replacement is effected as circumstances require. In past years obsolete and depreciated plant has been kept in use too long, presumably because of a desire to conserve capital outlay; but it is a false economy to continue the operation of equipment which is incapable of giving efficient service. It has been my constant aim to replace, as soon as the necessity arose, any item of plant which had outlived its real usefulness, and the wisdom of this course is shown by the low-cost operation and high output of the mechanical equipment employed on public works to-day. It is only by this method that full advantage can be taken of the continued developments which are taking place year by year in the technical design and increased efficiency of manufacturing enterprises throughout the world.

The types of machinery which have been obtained have been selected because of their general utility value for New Zealand conditions. For example, mechanized units which have been acquired primarily for earth-moving in connection with the construction of roads, railways, aerodromes, and irrigation projects can also be operated successfully in the interests of defence, if necessary, or in the clearing of land for settlement purposes. In the event of a national emergency, therefore, the Department's mechanical equipment would be readily available to undertake promptly any special works which might be required.

An illustration, in a minor way, of the value of suitable mechanical equipment in a time of urgent need was given in my last report in reference to the use of departmental plant for restoring communications immediately after the extraordinary flooding which occurred in the Hawke's Bay district in April, 1938.

I have felt it my duty to afford honourable members and the public generally the opportunity of seeing for themselves just what results can be accomplished by the successful operation of efficient mechanical plant. With this objective, I have during the past year made special arrangements on several occasions to demonstrate various machines operating under normal working-conditions. The reconstruction of the Ngahauranga Gorge section of highway near Wellington to the standard which has been adopted could not have been undertaken at justifiable cost without the use of mechanical plant, and that work is typical of many other constructional schemes in progress.

The efficiency of mechanized equipment depends very largely indeed upon adequate and continuous maintenance. In this connection the Department has established up-to-date servicing and repair depots throughout the country where any item of plant can be overhauled and reconditioned. An important feature has been the training of New Zealand operators for the various machines, and also the training of mechanics who attend to the servicing of the plant, both in the field and at the depots. An indication of the very satisfactory work being done at these repair-shops is seen in the fact that in many cases spare parts are being made in New Zealand at prices which compare favourably with imported spares. In addition, the time factor is of great importance, and the capacity to manufacture essential spares assists considerably towards the full-time operation of equipment.

HARBOUR-WORKS.

At Little Wanganui the construction of a new wharf has been deferred pending developments at Karamea Harbour. The present wharf has been built up to extend storage space for timber. At Westport the proposal formulated some years ago to increase the tidal capacity by dredging 3,000,000 cubic yards of material from the lagoon has received the approval of the Government. Tenders for a shallow-draught suction dredge have now been received and are under consideration. During the past year groyne construction and improvements have been effected at Organ's Island, and the breakwaters have received attention. Stone for both of these works was obtained from a suitable quarry at Cape Foulwind.

At Waikawa, Southland, a slipway and winch for the use of local fishermen have been constructed.