

In Mysore there is the very successful government undertaking on the Cauvery River. As now extended the power-house has a capacity of over 22,000 e.h.p. The power is transmitted some 90 miles to the Kolar gold-fields and to Bangalore and Mysore, respectively 57 and 37 miles distant.

The provinces of Bengal and Madras do not appear to show any great possibilities in the matter of hydraulic power. The question of utilizing the lake at Periyar for power purposes is, however, now being investigated.

In the Native State of Kashmir an installation on the Jhelum River at Mohora is designed to develop 20,000 h.p., and transmits its power to Baramula and Srinagar.

In general the hydraulic possibilities of India appear to be very great. The country possesses in abundance the minerals necessary for metallurgical development, the climate and land for the cultivation of cotton, flax, jute, and many other commodities, and an enormous population which, if trained, would provide abundant skilled labor. It is certain, too, that once it is determined by experimental trial for what crops and soils nitrogenous fertilizers can be used with profit to the cultivators, the demand for these, provided they can be produced at sufficiently low rates, will be enormous.

The possibilities are so great and the available information so meagre that the question of the thorough investigation of the possible sources of water-power in the Indian Empire would appear to warrant immediate attention.

Ceylon

In Ceylon, the amount of power should be considerable, but as yet the committee has been able to obtain little definite information as to its probable magnitude. Mr. H. T. S. Ward, M.Inst.C.E., estimates that at least 68,000 continuous h.p. is available even in the dry season at the falls of the Mahaweliganga and about one-half as much from the River Walawe Ganga. These are said to be very conservative estimates. The water rights belong to the Ceylon government. There are a number of rain-gauge stations on the 712 square miles of catchment area feeding the Mahaweliganga. Rainfall records for these are available from periods varying from 5 to 45 years. The mean rainfall is 115 inches per annum.

Burma

A fair amount of information is available as to the great rivers of Burma, the Irrawaddy, and its tributary, the Chindwin. Their sources are situated in the mountainous country south of Tibet. The catchment basin has an area of about 160,000 square miles, over which the mean annual rainfall is at least 100 ins. Owing to the flat gradients, averaging about 0.4 feet per mile, the Irrawaddy offers no possibilities within about 1,000 miles of its estuary. Between Bhamo and its source gradients are much more rapid, and the same applies to the Upper Chindwin.

The catchment area drained by the upper reaches of the rivers is about 80,000 sq. miles, and assuming it possible to utilize one-fifth of the discharge over a head of 500 feet, this would give a potential 7,000,000 h.p. There are also some promising sites on the Salween River.

It is a matter of pure speculation as to how much of this power might be capable of commercial exploitation. The future increase of population is, however, likely to be considerable in the northern hilly tracts, and the influence of cheap power on the development of the mineral and forestal resources of the country would be very great.

British Guiana

While the water-power resources of this colony are comparatively large, no definite information is yet available. The falls of Kaieteur are said to form perhaps the finest untouched water-power in the Empire.

British Honduras

Here also, while the water-power possibilities are known to be large, no definite information is available.

Canada

During recent years, the Canadian government, through the Dominion Water-Power Branch of the Department of the Interior, has devoted much attention to the systematic examination and development of the hydraulic resources of the Dominion, and the data, as regards the largest, most readily available, and most promising water-powers are sufficiently complete to permit a reasonably close idea of their possibilities to be obtained. These data are published in a series of some 24 reports issued by the Dominion Water-Power Branch. This department has instituted a comprehensive system of mapping, indexing and filing all available information concerning every important water-power throughout the populated portion of the Dominion. This system has been developed in collaboration with all the provincial authorities, and is intended to form a clearing house from which all available information regarding the water-power and allied resources of any given district can be immediately supplied. Much information is also contained in the reports of the Commission of Conservation, and in the annual reports of the Hydro-Electric Power Commission of Ontario.

The Canadian Government, by an Order-in-Council dated April 25th, 1918, has established a body to be known as the "Dominion Power Board." This board, under the chairmanship of the Minister of the Interior, consists of nine engineer officials selected from the permanent staff of the different departments of the Dominion Government. Its function is to make a systematic study of the fuel-power situation throughout Canada with a view to encourage the substitution of water-power for fuel-power wherever practicable, and so to co-ordinate the use of water and fuel resources that fuel, and in particular coal, may in future be reserved for purposes such as heating, for which it is at present indispensable. It is felt that the rail and water transportation facilities will thereby be relieved of an unnecessary burden, the Nation's balance of trade will be favorably affected since a large part of the coal supply is now imported, fuel resources will be conserved, and the substituted agency, water power, can never be depleted through use.

(Concluded in the next issue.)

On the recommendation of Hon. C. C. Ballantyne, Minister of Marine and Fisheries, a contract has been entered into by the government with the Victoria Machinery Depot, of Victoria, B.C., for the construction of two ships of 8,200 tons. This brings the number of ships the construction of which has been authorized by order-in-council up to 25, and some additional contracts will be closed within a few days. Of the 25 ships built, in the course of construction, or contracted for, ten are of 8,100 tons capacity, six of 5,100 tons, three of 3,400 tons, four of 3,750 tons and two of 3,400 tons. Canadian Vickers, Limited, of Montreal, heads the list with eight contracts and the remaining contracts are divided between the Collingwood Shipbuilding four, the Tidewater Shipbuilders four, Halifax Shipyards, Limited, two, the Davie Shipbuilding Company two, Victoria Machinery Depot two, Wallace Shipyards, Limited one, the Port Arthur Building Company two.