



The Idukki Hydrel Project

IT was an occasion of great significance. And of great rejoicing. "At a time when the need for electric power in India has come into sharp focus we have come today to witness the commissioning of one of the largest and finest power development projects ever built in India." With these words the Canadian High Commissioner to India Mr. J.R. Maybee welcomed the opening by Mrs. Gandhi of the Idukki Hydro-Electric Project in Kerala on February 12.

"I see a development which is certainly beautiful and impressive to look at, and which I am told is functional and efficient as well. This combination is not an easy one to achieve, and we are happy that it has been achieved here at Idukki."

Addressing the Prime Minister, Mr. Maybee said: "Several months ago you launched an economic program designed to focus the national effort on economic and social development. This project will certainly contribute to many of the most important aspects of that program. It will provide irrigation to a large area of agricultural land. It will provide power to the countryside and to industry. It

will contribute to the creation of jobs, and to greater productivity in the States of Kerala and neighbouring States. We are proud that Canadians have been able to join hands with you in such a tangible way in this important work."

Situated on the western side of the Nilgiris, the Idukki Project is already changing the face of the Periyar Valley. With an installed capacity for 780 MW (for 'peaking'), Idukki is the biggest hydro-electric scheme in South India and will increase the installed power capacity of the State by 15%. The 560 feet-high-arch dam is the first in India and the highest in Asia, over three times the height of the Niagara Falls. The reservoir, formed by damming the Periyar and Choruthoni rivers, the largest in Kerala, is 20 miles long and holding 70,450 million cubic feet of water at full level. Besides cheap power, the project will irrigate 1,50,000 acres via canals downstream.

Canadian cooperation with the Kerala State Electricity Board (KSEB) was first proposed in 1963; a memorandum of understanding specifying that Canadian grant and loan assistance would not ex-

ceed \$25.5 million and that rupee counterpart funds up to the equivalent of \$20 million would be allotted was signed on September 8, 1967; a loan agreement for purchase of Canadian equipment up to \$19.5 million was also signed. In addition, Canada has provided engineering consultant services to the project since the design stage.

The Canadian consultant firm of Surveyer, Nenniger and Chenovort of Montreal was responsible for the Idukki thin arch dam; the underground power house — to eventually contain 6 × 130 MW generators; penstocks, surge shaft; and other smaller items. KSEB was responsible for the balance of the project but advice of the Canadian consultants was available on request. For the most of the duration of the project, six Canadian engineers and their families lived on the site.

There are three dams connected with this project, the Idukki (high-arch) and the Gheruthoni (concrete gravity) at one end of the reservoir and the Kulamavu (masonry) at the other (intake) and, from the intake the water is carried underground through the power tunnel with