Pilgrimage to River Valleys

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AMONG the projects being-engineered in our country for the benefit of the people, the Damodar Valley Project has no parallel, considering its extent and multifarious activities. So says a pamphlet issued by the Damodar Valley Corporation. These claims are best tested by a visit to the Valley with its many installations, and such an opportunity was afforded to the writer last month through the good offices of the D V C authorities. This was followed by a visit to the Hirakud Project in Orissa, where the project authorities did all they could to make the tour very interesting.

Commencing the journey to the Valley from Calcutta at dawn, one quickly leaves behind the outskirts of the giant metropolis and speeds along the Grant Trunk Road to witness the canal and navigations systems incidental to the Durgapur Barrage situated on the Damodar about 90 miles from Calcutta. Then on to the barrage itself, one sees the core of the D V C Irrigation system with one canal designed to be navigable, which will connect the coal mining areas around Raniganj with the Hooghly, about 35 miles above Calcutta.

Durgapur

The Durgapur Barrage was formally inaugurated in August, 1955. The associated canal works are nearing completion, but with the work so far done, it is possible to supply water for irrigating 150,000 acres. One could see Durgapur, as the site for one of the three Steel Projects planned during the Second Five Year Plan and other industrial enterprises pulsating with activity. The Second Thermal Plant of the D V C visualised in the Durgapur area with its ultimate capacity of 225 MW is an indication that the D V C authorities are aware of the potential power load in the area.

From Durgapur to Maithon and Panchet Hill dam sites one passes through the industrial zone of Asansol and Kulti. The completed Maithon dam is awaiting the commissioning of the first of the three 20 MW Francis Turbine driven generating units, which is anticipated about July 1957. The dam will have an installed capacity of 60,000 kW and is also designed to provide water for irrigation.

The nearby Panchet Hill Dam site where work over the earthen dam was being rushed through mechanically, presented a spectacle of purposeful activity. This project has the benefit of experience gained in early accomplishments and this will be reflected in greater turnover of work.

Tilaya, Konar and Bokaro

Tilaya on the next lap of the journey is a picturesque spot. The hydro-electric station attached to the site has the smallest capacity (4000 kW) in the D V C System. Nevertheless, the project is not without merits. As a flood regulator, the Tilaya reservoir has some part to play and so why not tap the available power, even though it is small? The reservoir site also offers an ideal holiday centre, especially to the workers in the nearby coal and mica fields.

From Tilaya to Konar, via Hazaribagh, the national park with its wild game sanctuary offers a pleasing sight. The reservoir created by the Konar dam, formally declared open on 15th December, 1955, now serves to provide cooling water for the Bokaro thermal station, situated a few miles downstream. The project visualises irrigating over 100,000 acres of land with the possibility of a hydro-electric station of about 40,000 kW. There were no indications of work on the hydro-electric station and work on the originally projected underground power station has been abandoned.

The Bokaro thermal station with its present capacity of 150.000 kW presented a glittering spectacle as one approached it by the road from Konar at dusk. The mural mosaic on the walls as one entered the power station offered a fitting setting to an installation which struck one as orderly and neat by any standards. The Bokaro thermal station is already big but with the proposed addition of a fourth unit of 75 MW (making a total of 225 MW) the station would become a bigger undertaking.

Question Marks

Back again to Calcutta covering a distance of about 250 miles at one stretch, the monotony of the Chota Nagpur landscape stirred in oneself misgivings one felt on certain aspects of the D V C project which had registered in the mind earlier.

Is the Tilaya Project costing about Rs 3.5 crores justified in relation to the meagre power capacity of 400 kW? Is an underground power station at Maithon, with its extra cost, really justified on the score of bigger head alone? Could not greater co-ordination in planning have avoided the labour and money spent on the unfinished power station work at Konar and now to be abandoned? These questions, inevitable in any large-scale planning, however, do not lessen the glow of D V C's achievements.

In assessing the economics of an integrated River Valley Project, essentially conceived as a project to tame the turbulant Damodar and its tributaries, one should give sufficient weightage to evil effects of the periodic devastation which the wayward Damodar inflicts on the people of the Valley. Escape from this terror alone would justify the gigantic expenditure on the civil works in damming the river system at crucial points. If the incidental power available is sizeable, as it is in the system, that will be added justification for the project.

Speaking of power from the D V C System, the thermal

component, high as it is, will dominate the output and in the process make the project pay its way. And so, power utilization has received equal attention as planning, and this is well reflected in the commissioning of the Howrah Substation for feeding power into the Calcutta System, an instance of fruitful co-operation between the D V C and the private sector.

Hirakud

The Hirakud Project in Orissa has had more than its share of trials and tribulations and as one approached the "longest dam in the world" across the Mahanadi, the yastness of the Scheme unfolded itself. The dam has consumed 050 million cubic feet of earth and 40 million cubic feet of concrete and masonry. The reservoir' has an area of 288 sq miles, and the shore line runs to over 400 miles with a water' capacity of 6.6 million acre feet. These are impressive figures. The main dam will have 3 sets of 37,000 kW each and 2 sets of 24,000 kW each. One set of 24,000 kW has been in commission for some time and work was proceeding on others. The switchyard beneath the dam and the transmission system were nearly ready. The lower power house at Chiplima, 17 miles down the river will add 3 sets of 24,000 kW to power production, and work on the power channel was proceeding.

A ride along the dam rewards one with an impressive panoramic view, and part of the irrigation canals which have already been completed, gives a peep into the benefit which the peasant will derive by way of perennial water for augmenting food production.

Flood Protection

After a gruelling journey over the dam site and the Canal system and another spurt of 175 miles by jeep to Cuttack, one could dilate upon the impressions of the project. As in the case of D V C a number of question marks about the Hirakud Project came up in one's mind. Had there been less drive and enterprise in the earlier days of the project, amply made good in the final stages? Could not more meticulous planning have obviated the decision to abandon the bund at Chiplima? Could compelling considerations of priorities justify building of the 175 mile long i32 kV line to Cuttack at this stage? Has enough attention been given to educating the peasants to use the precious water's of the Canal System now running largely to waste? These questions, however, do not minimise the importance of the project. The all-important consideration was that the Mahanadi had to be harnessed and regulated so as to lift the gloom which the river's periodical turbulance caused on the people inhabiting the basin. Although the Hirakud dam will but impound about 1 7th of the Mahanadi's monsoon flood, that crucial 1 7th might well tilt the balance between devastation and progress as it did according to informed quarters during the last monsoon.

Both the D V C and Hirakud projects have had, and are having, their fair share of the problems which any dynamic scheme will be faced with. Even a fleeting glimpse of what has happened and is happening in the valleys could not but leave the impression in one's mind about the inherent soundness of the schemes. The most encouraging aspect is that the various projects in the two schemes are manned by able and devoted —nay even dedicated—personnel. The labours and the vision of the planners have given to the respective regions the means for attaining prosperity and it is for the people as well as for the operating authorities to make such hopes real without loss of time.