Short communication on GANESHGANJ LIFT IRRIGATION PROJECT

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ABSTRACT

Percentage of the irrigated area in the two tehsils of districts Baran & Kota, is only marginal and a large part of cultivable area needs adequate irrigation facilities. In these tehsils Mangrol and Piplda area covered by flow irrigation is very small. The situation of ground water is becoming worse by passage of each day as the most of the area irrigated is dependent on ground water. Objective of the project is to utilize the available water of river Chambal at the takeoff point to irrigate CCA of 6960 ha of two tehsils Mangrol and Piplda by lifting the water. After detailed survey and investigation this command is proposed. Hydrological data of river Chambal were collected which reveals that sufficient water is available in Chambal River at the takeoff point of the project to irrigate, the proposed command.

INTRODUCTION

Ganeshganj Lift Project was constructed in the year 1991 on 104.50 km of Chambal Dai main canal. But it was completed. The length of its main canal is 23.62 km. And the length of the distributaries is 25.44 km. And the irrigated area is 5900 hectares. Through this, 17 villages of Mangrol tehsil of Baran district and 9 villages of Pipalda tehsil of Kota district are benefitted.

The command area proposed under this scheme is very fertile and suitable for agriculture. Sufficient quantity of water is available in the river Chambal during non-monsoon months, which can be utilized for irrigation. Proposed command area has no other resource of water therefore it is proposed to irrigate this area by lifting water from river Cambal.

The main occupation of the people of Mangrol in the area is agriculture. Due to assured irrigation, whole year farming done the population will get employment as agriculture & which will consequently improve the economic standard of the people in the area.

The water from Chambal River is proposed to be lifted by 7.6 meters for providing irrigation facilities in C.C.A. of 6960 ha. The project on completion will provide irrigation facilities in 5830 ha in Rabi. Ganeshganj lift irrigation project envisages utilization of water from Chambal River near Village Dara, Kanwas and Anwa on its left bank. The lifted water will be used for irrigation through network of lined canals covering the Mangrol, Piplda Tehsils.

CLIMATE

Rain fall: Rajasthan is driest part of india. This district lies in the Southern part of Rajasthan & having an isohytal of about 26" (650 mm).

Temperature : In this area winter is quite cold, at some places Temperature drops down and on the other hand the Heat during summer is intense and the maximum temperature goes up to 47o C.

MODE OF COMMUNICATION

The Ganeshganj Lift Irrigation Project's pumping station is proposed on the left bank of river Chambal near Dara, Kanwas and Anwa of tehsil Mangrol Baran, Distt. Which is at a distance of about 23 km from Baran and is situated near State Highway.

DETAILS OF PUMP STATION

A Study of feasible irrigation scheme on streams flowing through in Baran & Kota districts has been done on G.T. Sheet of scale 1:50000. It was found that a G.C.A 6960 ha of land cannot to be irrigated by flow irrigation; as such lift irrigation scheme is proposed.

After detailed survey a pocket was selected for sufficient availability of flowing water in Chambal River in downstream of Kota gauge site which is about 104.5 Km d/s of Kota. Pump house has been proposed near villages Dara, Kanwas and Anwa of tehsil Mangrol Baran, Distt. on the left bank of river Chambal.

CIVIL WORKS

The main Civil works proposed to be constructed for this scheme are pump House, in take channel, sump well, cut and cover section of intake channel up to Sump well. It is proposed to draw water through intake well from river. The minimum water level in pool is RL 119.09 m. The length of the pipe from the sump well to equalizing reservoir is 2520 m. It is proposed to keep the floor level of the pump room of at RL 146.5 m. The motor and other equipment are to be installed at this level & pumps will be suspended from motor by shaft. The motors together with gate hoists, Control room & other regulation valves etc. have been located at RL 146.5 m.

ELECTRICAL AND MECHANICAL WORKS

It is proposed to install 6 operating pumps and 2 stand by pumps, each for 1.3 cumec (4680 M3/hr) capacity at a bowl head of 60.85 (effective head 60.5 m). These pumps will be run each by motor with 1150 KW rating. A Grid substation with necessary Power lines etc is proposed.

MAIN CANAL

It has been proposed to take one main canal on the ridge of the command area to feed on both the sides of the canal. The CCA is 6960 Ha. The proposed intensity of irrigation for Rabi is 97.23 %. The Command areais generally in mild slope suitable for cultivation of all types of crops. the total length of the canal is 23.6 Km. the bed slope is 1 in 6500 from Rd 0.00 to Rd 32.04 and 1 in 2500 from RD 32.04 to 23.6 Km, so as to irrigate the maximum command area .The side slope of the canal is 1.5:1.

CONCLUSION

Ganeshganj lift irrigation scheme has arranged 6960 hectares of field for irrigation. Water for both irrigation and drinking purpose is supplied through this scheme. As a result it can be seen such areas yield much better crops per season leading to improvement of economy and infrastructure in the state.Hence development of un-irrigated wasteland and dangerous droughts can be avoided that expedite economic development through different canal irrigation schemes. Morever government should emphasize on proper implication of such schemes.

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