



KARNATAKA NEERAVARI NIGAM LIMITED

(A Government of Karnataka Enterprise)

Office of the Executive Engineer,
Karnataka Neeravari Nigam Limited,
Dandavathi Reservoir Project Division,
Shikaripura
Ph: 08187-222206

NOTE ON JUSTIFICATION ON USE OF FOREST LAND

Kasaba Lift Irrigation scheme envisages constructing a barrage across Kumadvathi river near Kalenahalli village and lifting water on upstream of barrage near Kalenahalli Village in Shikaripura Taluk, Shivamogga District to Delivery Chamber and further by Gravity Pipe distribution network for providing irrigation facility to 3,430 Ha of command area in Shikaripura and Soraba taluks of Shivamogga district. It is proposed to lift the water from June to October for five months.

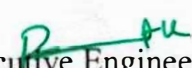
The lift scheme is designed to lift the water for 0.429 TMC, i.e., for 153 days. The total utilization planned under the scheme is 0.429 TMC. The project is benefitting 14 villages in Shikaripura Taluk and 3 villages in Soraba Taluk of Shivamogga District. The project also envisages filling 32 Tanks in Shikaripura Taluk and 9 Tanks in Soraba Taluk of Shivamogga District.

The proposed project is a Piped Irrigation Network. So far, the irrigation development in our country is being undertaken through Canal Distribution Network emanating from rivers, dams and reservoirs for the purpose of carrying water mostly through gravity up to outlets and from outlets to agricultural field through water courses or field channels. Further, with the intention of prevention of water losses, lining of canals, FIC works, drip irrigation systems, etc were adopted. The overall efficiency that can be achieved by canal conveyance and distribution has reached the upper limit which is about 35-60%. Therefore, in order to improve irrigation efficiency by preventing losses at various reaches in the irrigation system, Piped Irrigation Network (PIN) has been adopted for the proposed project. Piped Irrigation System provides one of such options which if implemented properly can curtail irrigation water demand without compromising with Net Irrigation Requirement (NIR) but by improving the water use efficiency. The estimated overall efficiency with piped irrigation network is of the order of 70-80%. The advantages of PIN are;

- Piped Irrigation Network involves minimum disruption to the topography and land use thereby reducing the Right of Way problems.
- PIN is considered to be a more suitable option for flood prone area as there is no damage due to heavy rainfall or flood during monsoon.
- No hindrance in movement to the farmers and farm equipments.
- An increase in CCA may be observed as the water losses are negligible and the land acquired for the canal network can also be used for cultivation as Piped Irrigation Network is under ground.
- PIN involves lesser transit times for water to reach from source to field.
- PIN upholds lower conveyance losses of water and is considered to be more flexible in both duration and timing thereby enabling intensification and diversification into higher value crops.

- The time for execution/implementation of PIN is less compared to Canal Distribution Network (CDN).
- By ensuring proper water conveyance system, water logging and salinity can be reduced thereby minimizing the impact of water/vector borne diseases.
- Quantity of water supplied by PIN is easily measureable; hence water auditing can be accurately measured.
- A considerable increase in project efficiency may be observed.
- PIN is considered to be suitable for undulating landscape as well.

The Jack well cum pump house and Delivery Chambers are the only above ground structures and remaining Rising Main, South and North Branch Canal are piped network buried underground. for about 1.2-1.5 m below ground. Every field will get the outlet for distribution of water. The Raising Main, Gravity Feeder and Delivery Chamber of the Project has to be planned as per the Contours and hence barest minimum forest land is proposed for diversion which is unavoidable.


Executive Engineer
KNNL, DRP Division,
Shikaripura -577427

