

Pre Feasibility Report

1. Executive Summary

- Basaveshwara (Kempwada) Lift Irrigation Scheme Project is proposed to irrigate an area of 27,462 ha by utilizing the 4 T.M.C of water from Krishna River during Kharif season only.
- Entire population in this region is mainly dependent on agriculture, which in turn forms the back-bone of economy of the region. But due to lack of adequate and timely rainfall, the region oftenly from scarcity and periodically famine often.
- The annual average rainfall in Athani taluk is 687 mm, mainly these taluks lies in rain-shadow area.
- To minimize the dependence of agriculture on Kharif season, Basaveshwara (Kempwada) Lift Irrigation Scheme has been proposed by the Karnataka Neeravari Nigam Ltd, Govt. of Karnataka to provide irrigation the villages of Athani Taluk. This will provide stability to agriculture and thus improving the per capita income and standard of living of the people.
- The scheme envisages diversion of 4 TMC of water from the Krishna River and lifting the water to Athani Taluk near Ainapur Village, and providing irrigation facility to 27,462 ha of lands.
- The location of proposed jack well is at latitude 16°40'29.6328"N and longitude 74°53'29.9256"E near Ainapur Village, Athani Taluk, Belgaum District
- The proposed irrigation is only in Kharif period and the intensity of irrigation is 100%.
- Command area benefited –22 villages of Athani taluk. They are:
Ajur, Ananthapur, Aralihatti, Balligeri, Bammanal, Bevanoor, Gundewadi, Hanamapur, Ingalagava, Jambagi, Kallotti, Khilegaon, Kirangi, Madabhavi, Malabad, Masarguppi, Naganura, Pandegaon, Sambaragi, Shirur, Shivanoor and Tawashi.

1. Introduction of the Project/ Background Information

2.1 Identification of project and project proponent.

Karnataka Neeravari Nigam Limited (KNNL) has been registered as a completely owned company under Government of Karnataka as per the provisions of The Companies Act, 1956 with effect from 9th December 1998. It has its Registered Office at 4th Floor, Coffee Board Building, No.1, Dr. B R Ambedkar Veedhi, Bangalore –560 001.

2.2. Brief description of nature of the project.

The proposed project is an irrigation project. The scheme involves lifting 4 TMC water by lift from Krishna River near Ainapur Village of Athani Taluk, by constructing a jack well and pump house. No forest land is required for any part of the project and no additional submergence will be caused due to the project. However the inter-state boundary is at a distance around 1 Km from the command area boundary towards north direction hence the project attracts general condition as mentioned in the Environmental Impact Notification -2006 and its subsequent 'A' category'.

2.3. Need for the project and its importance to the country and or region.

Major economic activity of the region is due to agricultural activities, which are heavily monsoon dependent. However, due to the inconsistent monsoons and erratic rainfall, the overall agricultural production and consequently the per capita income and the overall economy of the region is low. Irrigation projects have to a large extent mitigated the problems due to monsoons and droughts in many areas in the region. This proposed project similarly will provide irrigation facilities to the 27,464 Ha in 22 villages of Athani Taluk, Belgaum district, Karnataka. Thus improving the agricultural output and increasing the per-capita income of the people of the region.

2.4. Demand-Supply

The total water allocated for the proposed project was 4 TMC of water from the Krishna River near Ainapur Village, Athani Taluk and lifting the water to Northern side villages of Jamkhandi taluk and Eastern side villages of Athani Taluk lands and providing irrigation facility to 27,464 ha of lands.

2.5 Imports vs. Indigenous

Production Not Applicable

2.5. Export possibility

Not Applicable

2.7. Domestic/ Export markets.

Not Applicable

2.8. Employment Generation (Direct and Indirect) due to the project.

Around 300 people (50 Technical and 250 construction labourers) are expected to be employed temporarily for the construction work of intake channel, jack well cum pump house, raising main, delivery chambers and distribution network consisting of canal system with flow irrigation. During operation phase labourers will be appointed operation and maintenance of the jack well.

3. Project Description

3.1. Type of project including interlinked and interdependent project, if any. Not applicable

3.2. Location (map showing general location, specific location, and project boundary & project site layout) with coordinates.

The project is situated in Athani Taluk of Belgaum District, Karnataka. The command area of the proposed project shown is enclosed as **Annexure 1**.

3.3. Details of alternative sites, considered and the basis of selecting the proposed site particularly the environmental considerations gone into should be highlighted.

Not applicable

3.4. Size & magnitude of operation

The scheme envisages lifting the water of 4 TMC of water from the Krishna River near Ainapur Village of Athani Taluk lands and providing irrigation facility to 27,464 ha of lands.

3.5. Project description with process details (a schematic diagram/flow chart showing the project layout, components of the project etc) should be given.

Command area map and schematic map of the project are Enclosed as Annexure-1 and Annexure-2 respectively.

3.6. Raw material required along with estimated quantity, likely source, marketing area of final products, mode of transport of raw material and finished products.

Not applicable

3.7. Resource optimization/recycling and reuse envisaged in the project, if any, should be briefly outlined.

Not applicable

3.8. Availability of water its source, Energy/power requirement and sources should be given. Water Requirement

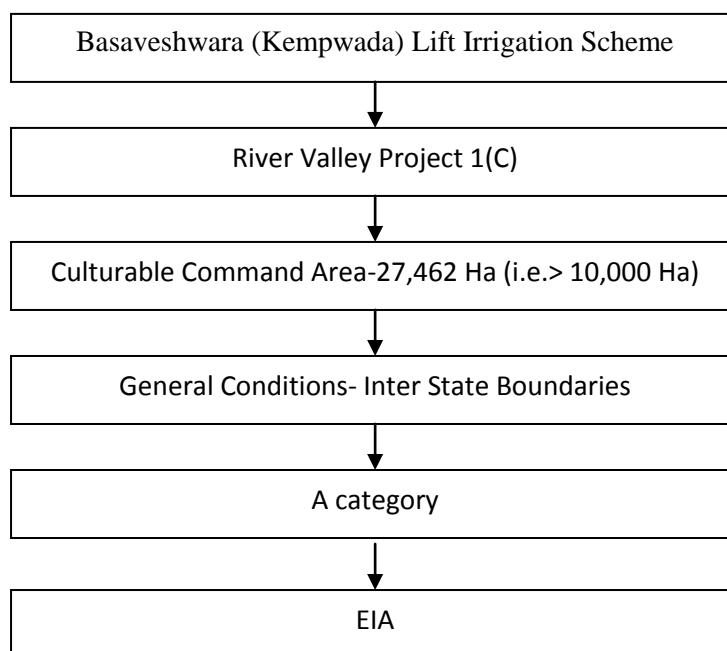
It is proposed to lift 4 TMC of water from Krishna River for irrigation purpose. **Power Requirement**

Total power requirement is 29028.60Kw during operation. Source- HESCOM (Hubli Electric Supply Company)

3.9. Quantity of wastes to be generated (liquid and solid) and scheme for their Management/disposal.

Sewage generated from the labour camps will be treated in septic tank and soak pits that will be designed and constructed as per IS 2470 Part-I and Part-II. Domestic solid wastes proposed to be generated from labour camps will be disposed to nearby Municipal Landfills.

3.10. Schematic representations of the feasibility drawing which give information of EIA purpose



4. Site Analysis

4.1. Connectivity

The project site (Head works) is approachable by road and is at a distance of 4 km off Dharwad-Bijapur state highway 34. The lift point near Ainapur village is at the distance of 29.3 km from Athani taluk head quarters along the state highway. Ugar Railway Station is situated at 5 Km from the lift point towards South. Nearest airport is Belgaum airport which is at 145 km from the lift point towards east.

4.2. Land form, land use and land ownership.

The land use in the proposed project area is dry land agriculture, subject to vagaries of monsoon rain with low cropping intensity and low productivity. The major part of the population depends on agriculture with crops such as Jowar, Bajra, Wheat, Grams, Sugarcane being cultivated in the region.

4.3. Topography (along with map)

Topography is relatively plain area with gentle to mild slopes. Toposheet is attached as **Annexure-3.**

4.4. Existing land use pattern (agriculture, non agriculture, forest, water bodies (including area under CRZ), shortest distances from the periphery of the project to periphery of the forest, national parks, wild life sanctuary, eco sensitive areas, water bodies (distance from, the HFL of the river)). In case of notified industrial area a copy of the Gazette notification should be given.

Not applicable

4.5. Existing Infrastructure

The project site is primary an agricultural area. The command area comprises of 22 villages.

4.6. Soil Classification

The soil in the command area is red soil with low water holding capacity, moderately deep fine textured and heavy black cotton soils with high water yielding capacity but with poor internal drainage. All these soils are generally suitable for irrigating the Kharif crops.

4.7. Climatic data from secondary sources

The catchment spreads in two agro climatic zones. The western and eastern part of the catchment falls under hilly zone and Northern Transition zone respectively. The climate of the western part in general is characterized as humid and dry. The year may be divided into four seasons. The summer is from March to May and is followed by the southwest monsoon season from June to September. October and November constitute the retreating monsoon or post monsoon season. The period from December to February is generally dry with clear bright skies.

4.8. Social Infrastructure available

In the close proximity of the project site, educational, religious and transportation facilities are found. The habitants have a good transportation facility as these are accessible easily. There are few educational infrastructures like the Vidya Verdhak School, C S Kittur High School, Sankonatti Primary School, J A High School and Mallattikhodi Govt which is nearest to project site. Overall it is clearly seen that the social infrastructure in and around the project site is of a good standard but still pre-university and first grade colleges has to take place in a great scale.

5. Planning

5.1. Planning concept (type of industries, facilities, transportation, etc.) Town and Country Planning Development authority classification.

There are 22 areas which come under the ambit of this project namely-

Sl.No	Village Name	Taluk	District	Area in Ha
1	Ajur	Athani	Belgaum	27,464 (67,860 Acres)
2	Ananthapur			
3	Aralihatti			
4	Balligeri			
5	Bammanal			
6	Bevanoor			
7	Gundewadi			
8	Hanamapur			
9	Ingalagava			
10	Jambagi			
11	Kallotti			
12	Khilegaon			
13	Kirangi			
14	Madabhavi			
15	Malabad			

16	Masarguppi			
17	Naganur P.A			
18	Pandegaon			
19	Sambaragi			
20	Shirur			
21	Shivanoor			
22	Tawashi			

5.2. Population Projection.

Influx of people will be only during construction phase, only few people will be employed for operation and maintenance of the project.

5.3. Land use planning (breakup along with green belt etc.)

27,464 Ha of agricultural land will come under this scheme.

5.4. Assessment of Infrastructure Demand (Physical & Social).

The proposed project envisages the lifting of 4 TMC of water from Krishna River and providing irrigation facility to 27,464 Ha areas which in turn improves the cropping pattern and crop yield.

5.5. Amenities/facilities.

The proposed project is a single stage proposal with single lift location on the left bank of Krishna River near. It is proposed to provide irrigation facility to 27,464 ha of lands through drip irrigation in Athani Taluk thereby providing irrigation facility to 22 villages of Athani Taluk, Belgaum District

6. Proposed Infrastructure

6.1. Industrial Area (Processing area)

Not applicable

6.2. Residential Area (non processing area)

Not applicable

6.3. Green Belt

27,464 Ha (67,860 Acres)) of agricultural land will come under this scheme.

6.4. Social Infrastructure

There are few educational infrastructures like the Balchandra Jarakiholi Pre University College Kakamari, G H College, M G PU College Teslang and Govt First Grade College

which is nearest to project site. Overall it is clearly seen that the social infrastructure in and around the project site is of a good standard.

6.5. Connectivity Traffic and Transportation Road/Rail/Metro/Water ways etc

The command area has many village roads and 3 state highways SH34, SH43 and SH12 connects the command area to other parts of the state.

6.6. Drinking water management (Source & Supply of water)

Not applicable

6.7. Sewerage System

Sewage generated from the labour camps is proposed to be treated in Septic Tank and Soak Pits designed and constructed as per IS 2470 Part-I & Part-II.

6.8. Industrial waste management

Not Applicable

6.9. Solid waste management

Domestic solid waste will be disposed to nearby municipal landfills.

6.10. Power requirement & Supply/Source

HP Proposed at Jack well for lifting water from Jack well to MDC is 3244HP each for 12 Pumps. Total power requirement is 29028.60Kw for the entire project.

Source- HESCOM (Hubli Electric Supply Company)

7. Rehabilitation and Resettlement (R&R) Plan

7.1. Policy to be adopted (Central/State) in respect of the project affected persons including home oustees, land oustees, and landless labourers (a brief outline to be given).

The proposed project does not involve displacement of the families/houses for the project activities. The total land required for the project is 27,464 Ha (67,860 Acres) and the same shall be acquired as per Right to Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act (RTFC&LARR Act), 2013.

8. Project Schedule & Cost Estimation

8.1. Project Schedule

The total developmental period of the entire proposed project will be about 36 months from commencement of construction.

8.2. Cost Estimates

The total cost estimated for the proposed project is 112036.00 Lakhs.

9. Analysis of proposal (Final recommendation)

9.1. Financial and social benefits with special emphasis on the benefit to the local people including tribal population, if any, in the area

BC Ratio calculations for the project is as given in **Annexure 4**.