

LIFT IRRIGATION SCHEMES IN BAGALKOT DISTRICT UNDER UPPAR KRISHNA PROJECT: A VIEW

Gururaj Chavhan* & Dr. S. K. Kallollikar**

*Research Scholar, Department of History and Archaeology, Karnatak University, Dharwad.

**Professor, Dep. of History and Archaeology, Karnatak University, Dharwad.

Abstract:

Karnataka's most drought-prone district is Bagalkot. The Krishna River plays a significant role in this district. The most prestigious multipurpose (irrigation and electricity) project in Karnataka is the Upper Krishna Project (UKP), one of the state's major infrastructure initiatives. Nine lift irrigation projects in the district of Bagalkot have received UKP approval. For the Badami, Bagalkot, Bilagi, Hunagund, Mudhol, and Jamkhandi taluks of the Bagalkot district, a lift irrigation scheme has been put into place using the reservoirs of the Upper Krishna Project's backwaters, such as Almatti and Narayanapur Dam. Over 97,000 hectares of land receive irrigation from these installations. As a result, this paper will look into the irrigation potential programme and the development of various irrigation projects.

Keywords: UKP, Lift irrigation, Area

INTRODUCTION

Some of the best temples may be found in the Bagalkot district. The beautiful temple complex known as Pattadakal is home to the architectural marvels that have earned it the title of UNESCO World Heritage Site. It was once the seat of the powerful Chalukya dynasty. The renowned social revolutionist of the 12th century, Lord "Basavanna" lived and worked at Kudalasangam. Geographically speaking, the district is situated on the Deccan plateau's northern region. There are six taluks that make up this region: Badami, Bagalkot, Bilagi, Hunagund, Mudhol, and Jamakhandi. The district's main office is in Bagalkot.

The district has a total geographical area of 658877 hectares, of which 469859 hectares are cultivable and 81126 hectares are forested. Bagalkot is

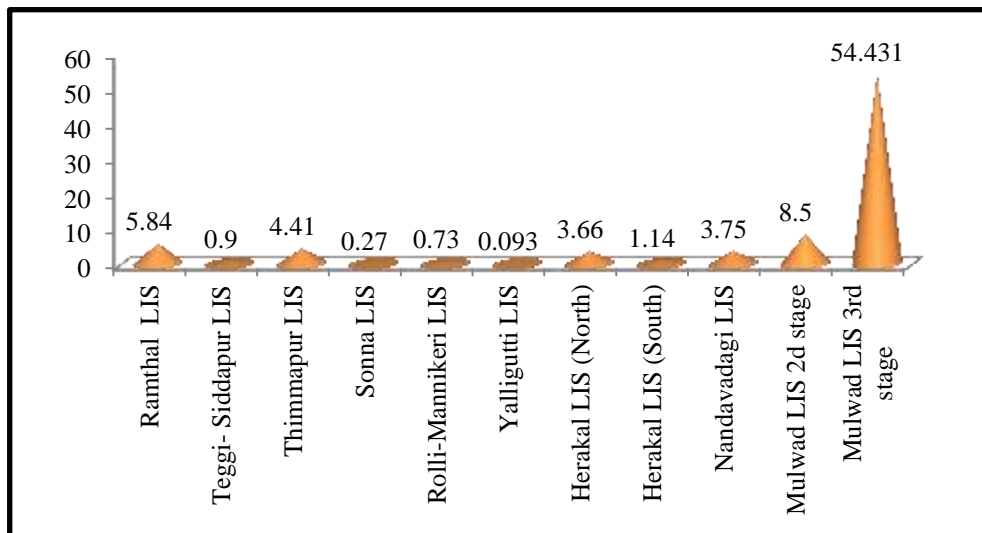
Please cite this article as: Gururaj Chavhan & S. K. Kallollikar (2022). Lift Irrigation Schemes In Bagalkot District Under Uppar Krishna Project: A View. *SRUJANI: Indian Journal of Innovative Research and Development (SIJIRD)* 1(5), 147-155.

devoid of large canopy tree vegetation, the region is semi-arid. The Krishna Ghataprabha and Malaprabha Rivers flow through the region but are not perennial. The soil in the area is classified as either black or red. Black soil retains moisture and is often used for the cultivation of Rabi crops like Jower and Bengal gram. Other major crops cultivated in the district are red gram, sunflower, groundnut, wheat, bajra, and maize. The final stage is the need for water for various purposes such as irrigation, drinking, industry, and hydropower.

Origin of lift Irrigation scheme

The Upper Krishna Project (UKP) is the only source of income for North Karnataka areas that have experienced a protracted drought. The former Bombay State had considered a lift irrigation plan from the Krishna River for the irrigation of portions of the Vijayapur area before the 1956 reorganization of states. The Vijayapura Lift Irrigation Scheme was a plan in this direction that was created in 1950. (subsequently called the Mulwad Lift Irrigation Scheme). The Upper Krishna Project (UKP), which had previously been researched by the former Hyderabad State, was later reexamined by the Mysore Government after the reorganization of states, and the project took shape in 1963. For irrigation purposes, the project entails building two major dams close to Almatti and Narayanapur.

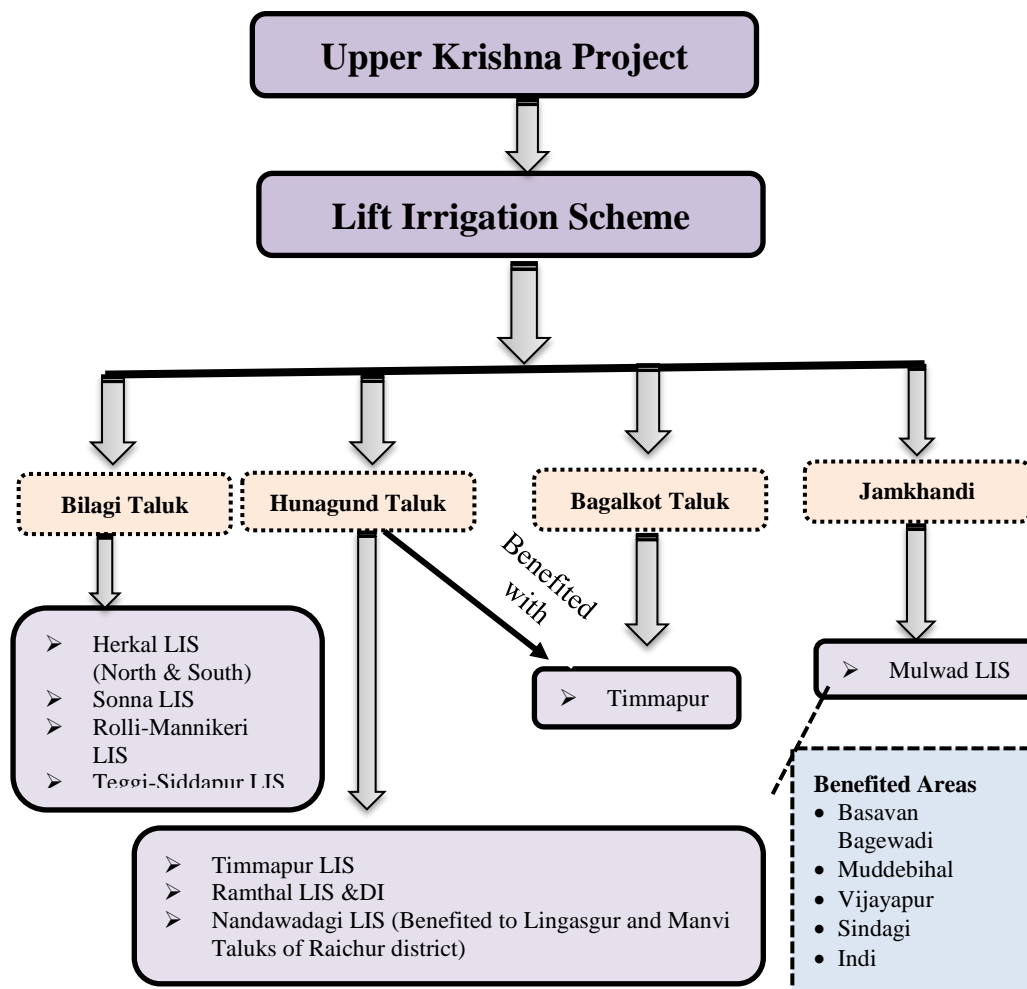
Fig.1 Utilization of Water (TMC)



Source: Water Resources Department, GOK; KBJNL, GOK

The project was supposed to be finished in three stages with a total water demand of 303 TMC, per the 1963 project report for UKP Phase-I. Two phases of the Upper Krishna project's execution were used. The project is now irrigating 424903 hectares in Stage I and 197120 hectares in Stage II. Both phases were complete. It is planned to build Upper Krishna Stage-III to supply irrigation for a 5.94 lakh hectare command area in northern Karnataka's Vijayapur, Bagalkot, Kalburgi, Yadgir, Raichur, Koppal, and Gadag districts.

Chart 1: Details of Lift Irrigation in Bagalkot District



Herkal (North) Lift Irrigation scheme

In Bilagi taluk of the Bagalkot district, irrigation is planned for 15,344 hectares as part of the Herkal LIS lift irrigation scheme, one of the schemes proposed under UKP Stage-III. In accordance with the Herkal LIS, 350 hectares of outlet irrigation potential are generated throughout 2018–19, pending the GOI's final notification of the KWDT–II Award.

Herkal (South) Lift Irrigation scheme

Under this scheme, it is proposed to extend the irrigation facility under Herkal (South) LIS to 6,100 ha. The government has accorded administrative approval, via GO dated: November 8, 2017, for the Herkal (South) LIS Extension Project at an estimated cost of Rs. 238.00 crore. Construction of Herkal Bridge and barrage work across the Ghataprabha River, taken up as part of UKP Stage-III, is almost complete.

Sonna Lift Irrigation Scheme

This LI plan calls for using a total of 0.27 TMC of water from the Almatti Reservoir's backwaters to irrigate 1,055 hectares of command area in the Bilagi Taluk. The scheme has been finished and launched. Water has been made available for irrigation since 2010.

Rolli-Mannikeri Lift Irrigation Scheme:

The Almatti Reservoir shoreline is where this LI plan is in use. The plan calls for irrigation to be applied to 2,450 hectares in the Bilagi taluk of the Bagalkot district. Water outlets are included in the plan for irrigation. The plan creates a potential area of 2,450 hectares.

Teggi-Siddapur Lift Irrigation Scheme:

On the Almatti Reservoir shoreline near Teggi hamlet in Bilagi taluk, this lift irrigation system is in use. The plan calls for irrigation to be applied to a 3,000-acre command area in Bilagi Taluk. Water is released for irrigation after the plan has been completed. The plan creates a potential area of 3,000 hectares. The scheme has been finished and launched.

Yelligutti Lift Irrigation Scheme:

This plan proposed for using water from the Ghataprabha River to provide irrigation facilities for 500 hectares of command area in Bilagi Taluk, Bagalkot District. In September 12, 2017, the government gave administrative approval for the Yelligutti LIS Project, which will cost Rs. 35 crores. In March 2019, Head Work construction received a turnkey contract.

Thimmapur Lift Irrigation scheme.

The Thimmapur Lift Irrigation Scheme is one of the irrigation projects of the Krishna Basin project (T.L.I.S.). This LI system moves north starting at kilometer 5.40 of the Almatti Right Bank Canal. It is anticipated that irrigation will help about 20,100 hectares of drought-prone land in the Hunagund Bagalkot taluk of the Bagalkot district. were utilizing 4.24 TMC of water.

The length of the intake canal, from the ARBC main canal at mile 5.386 to the sump and pump house in the Bagalkot taluk near Thimmapur village is 1560.00 m. For the purpose of transporting water from the pump house to the delivery chambers DC-1 and DC-2 close to Thimmapur village, the rising main's first stage and second stage each have lengths of 0.76 KM and 1.94 KM, respectively.

Box 1. Distributor Chamber (DC) one and Two**DC-1:**

Main Canal, km 0.00 to 43.00, and Distry. No. 1 to 24 under DC-1 is completed.

Due to an obstruction by Benakatti Villagers, the Main Canal from km 43.00 to km 53.00 was not completed (Grama Sabha resolution passed). The Main Canal Km. 46.70 to 53.00 balance work is nearly finished.

DC-2:

Completed Main Canal, km. 0.00 to 28.00, and Dy. No. 1 to 11.

Further due to obstruction by Benakatti villagers (Grama Sabha resolution passed). Main Canal construction is curtailed at Km. 28.00.

Ramthal (Marol) Lift Irrigation Scheme

First Phase of the Scheme: This LI scheme is being implemented on the Narayanapur Reservoir's foreshore. The scheme was originally planned to provide irrigation to 26,200 hectares of the Hunagund Taluk of Bagalkot District through two stages of lifting. The first Head's construction is finished. First Stage: The West Main Canal and East Main Canal, as well as the Distributory Network, have been completed. Irrigation potential of 14,493 hectares has been created, with 12,987 hectares notified so far until March 2019, and water has been released for irrigation.

The Scheme's Second Stage: Construction of Head Work is completed. Under 2nd Stage of the scheme it was originally contemplated to provide irrigation for 12,000 hectares through conventional system of irrigation.

The government granted administrative authority for the use of the drip irrigation system under the second stage of the Ramthal (Marol) LIS on a pilot basis at an estimated cost of Rs. 786.11 crore via GO dated August 16, 2012. The Ramthal (Marol) LIS 2nd Stage's drip irrigation system is already finished, and irrigation resources have been made available for the 2018–19 Kharif and Rabi seasons. A total of 15,000 farmers have joined 51 Water Users Cooperative Societies (WUCS) that were established under the plan. Additionally, the concept offers farmers advance Agri-Linkages for selling their agricultural products. The largest of its kind in the nation, this project supplies irrigation to 24,000 hectares of command area in Hunagund taluk of Bagalkot district. The plan has successfully accomplished the 24,000 hectares' overall irrigation potential.

Nandawadagi Lift Irrigation Scheme:

Hunagund and Lingasgur, located in the economically underdeveloped districts of Bagalkot and Raichur, are home to roughly 72% of the local population, who primarily rely on agriculture for a living. Lifting water with a 3.75 TMC water allocation from the Narayanpur reservoir's foreshore, or from RL 486.0 m to RL 550.0 m near Tondihal Village in Lingasgur Taluk, Raichur Dist., and using that water to micro irrigate 36100 hectares of Lingasgur, Manvi, and Hunagund Taluk under UKP Stages I and II. However, 500 hectors have been set aside for this project by the Hunagund Taluk. It is suggested to build a 400.0 m intake canal from the shoreline to the sump and pump house in the Lingasgur taluk, which is close to Tondihal village. To provide drip irrigation amenities, it is intended to raise the main 14 KM that carries water from the pump house to the delivery chamber close to Nandawadagi village.

The government has given administrative approval for the execution of the Nandawadagi LIS through KBJNL adopting a drip irrigation method at an anticipated cost of Rs. 1530 crore, as stated in GO dated March 1, 2014. The project was given "Environmental clearance" by the MoEF in January 2017, in accordance with the requirements for its implementation as a modernization project of UKP Stages I and II. The turnkey construction of Head Work at Nandawadagi LIS, which had a bid cost of Rs. 207 crore, is currently in an

advanced stage of development. The Drip Irrigation Network has three packages totaling 36,100 hectares and bids have been requested and are now being reviewed. District wise and taluk wise command area of Nandawadagi LIS for 3.75 TMC of water allocation schemes is shown Table 1.

Table.1 Water Allocation

Scheme	Area (Ha)	District	Taluk
Nandawadagi LIS	500	Bagalkot	Hunagund
	27600	Raichur	Lingasgur
	8000	Raichur	Manvi
Total Area (Ha)	36100		

Source: KBJNL, GOK.

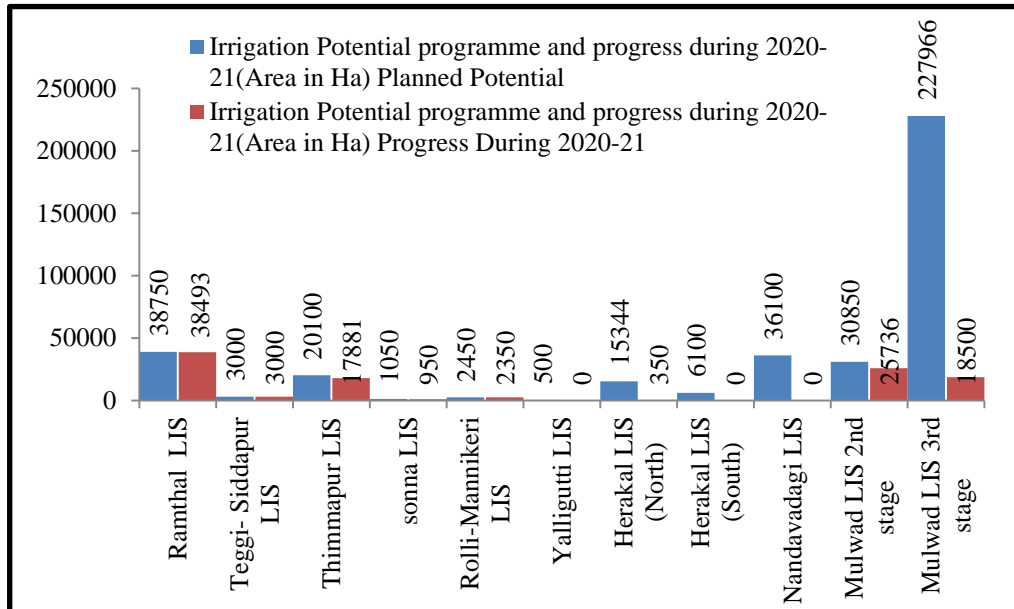
Mulwad Lift Irrigation Scheme Stage-III (Jamkhandi Taluka Portion)

The Table 2 presents the about 2,27,966 hectares of the Vijayapur District and a portion of the Jamakhandi taluk in the Bagalkot District will be irrigated by the MLI Stage-III works being carried out by the Upper Krishna Project Stage-III. 52.40 TMC of water will be used in total as part of the project, which is planned for UKP Stage III allocation. Jamakhandi taluk in Bagalkot District will have 3014 acres of land irrigated as part of this project, using 0.021 BCM of water. The following 3 settlements are partially irrigated and receive water from the Malaghan West Canal at elevations of 590.00 metres or lower. The Main Canal has completed planning its irrigation system to irrigate these settlements. The work is currently being estimated. For the three villages stated above, the anticipated cost of canal network is Rs. 105.00 crores. The Main Canal has completed planning its irrigation system to irrigate these settlements. The work is currently being estimated. For the three villages stated above, the anticipated cost of canal network is Rs. 105.00 crores.

Table 2: Area under the Mulwad Lift Irrigation by Canal in Jamkhandi Taluk

SL. No	Villages	Area brought under irrigation by Canal.	Area (HA)
1	Chikkalaki	Malaghan West canal Dy-25 at 118.50 Km Tail end.	954
2	Gadyal	Babaleshwar Branch Canal-1 block No.31of Dy No.15	90
3	Todalabagi	Malaghan West canal Dy-23 at 101.14 Km.	1971
Total			3014

Source: KBJNL, GOK.

Fig 2. Irrigation Potential program and progress during 2020-21(Area in Ha)

Source: KBJNL, GOK.

The Mulwad Lift Irrigation Scheme has provided irrigation potential for an area of 18500 hectares based on a total of 2,27,966 hectares, according to data for 2020–21. Additionally, Ramthal Lift irrigation, based on a total of 38750 hectares, has most effectively given irrigation potential for a region of 38493 hectares. Similar to this, the 3000 hectare Teggi-Siddapur Lift Irrigation Scheme has been completely irrigated. As a result, the Sonna Lift Irrigation Scheme has a 960 acre irrigation capacity as well. Currently, Elligutti, Herakalla (South), and Nandavadagi's works projects are almost finished (Fig 2).

Impact of project:

- Increased Irrigation potential
- Better living standard is raised.
- Employment potential / Fishers has increased
- Sustained water available for agriculture, Industrialization and Drinking Water.
- Improvement is seen in social status and confidence.
- Better opportunities have increased for cattle rearing.

Conclusion

With a total of nine lift irrigation projects, the Upper Krishna Project in the Bagalkot district offers irrigation services to a region of around 97,000 hectares. Similarly, farmers' financial circumstances will improve by cultivating a range of crops throughout three seasons. Additionally, the Upper Krishna Project's 9-lift irrigation plan benefits the Badami, Jamakhandi, Bilagi, Bagalkot, and Hunagund taluks of the Bagalkot district; the majority of these taluks are located in Bilagi and Hunagund taluks.

Reference:

- GOK (2004). *40 years of Upper Krishna Project*, UKP Documentation Committee Bangalore.
- GOK (2006-07). *Water Resources Department (Major&Medium Irrigation) Performance Budget*.
- GOK (2015-16). *Water Resources Department (Major, Medium Irrigation & CADA) Annual Report*.
- GOK (2017): *Pre-Feasibility Report & Draft terms of Reference of Herkal (South) Lift Irrigation Scheme (Extension)*, State Environment Impact Assessment Authority.
- GOK (2020-21): *Water Resources Department (Major, Medium Irrigation) Annual Report*.
- KBJNL (2016): *Draft Environment Impact Assessment Report for Upper Krishna Project in Vijayapur district in Karnataka, vol-1*.
- KBJNL (2020): *Progress Report of Upper Krishna Projects*
- KBJNL (2020-21): *27th Annual Report*.