

## EVALUATION REPORT OF ONGOING KALESWARAM MAJOR IRRIGATION PROJECT ON RIVER GODAVARI BASIN IN TELANGANA STATE

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**Abstract-** At the outset “There is a truth that God is truth” at the same time “water finds its own level is also truth”. Contrary to the “God saying”, the Government of Telangana taking the water against truth and proving that it intend to provide water for parched and virgin lands by delivering the water against gravity .In normal way ,in irrigation practices, water will be provided towards gravity. But contrary to the nature, it is in opposite way. In this project the Kaleswaram Dam is being constructing at tail end and carrying the water upstream by pumping and gravity including tunnelling. The salient features of the Kaleswaram Project are briefly projected contrary to the natural flow water would be taken back in this project. At Kaleswaram on Godavari, another tributary is joining from Maharashtra and as such good water is available. Therefore, downstream of Kaleswaram at Medigadda, one barrage is proposed, there by lifting the water to Yallampalli. Total cost of project is Rs 80,500 crores and total capacity 225 TMC.

**Key words:** Gravity, Irrigation, Pumping, tunnelling

### I. Introduction

The Government of Telangana has taken up major irrigation project on river Godavari at Kaleswaram. This is located in Jaya Shankar Bhupalapalli District at Medigadda. This is a Lift Irrigation Project. This is the starting point and at Medigadda one pump would be constructed. From here the water will be diverted to Annaram Barrage.

The Kaleswaram lift irrigation and drinking water supply is the biggest with an estimated cost of rupees 80,500 crores.During the 2 to 3 years time such a big project has not been after up any where is our india. This is supposed to be the biggest among the two telangana states.

All the designs are to be approved by CWC, Government of India recently accorded the Environmental clearance. The honourable Chief Minister of Telangana has been inspected the main works at Kaleswaram.

In this paper, actual work schedule has been discussed. There are about 12 packages in this project. The project has been started 3 years ago 2014, and to be completed by 2020.

From the enclosed Fig.1 to Fig.3, it could be seen that from Annaram pump house, the water will be diverted to sundilla pump house, the water will be diverted to Yellampalli. From Yellampalli; through tunnels, canals, by lifting arrangement, the water will be diverted to Mid-Manair. From Mid-Manair the water will be diverted to mallana sagar, Konda pochamma reservoirs etc., at Siddipeta. From there, the water will be diverted to reservoirs namely Gandharala, Baswapur located in Yadadri district. This is the dead end of the layout.

Infact upto August 13, 2017 only 230 TMC available below SRSP. At SRSP upto August 15, 2017 the available

water is 117 TMC at Yellampalli, the water availability is 4.39 TMC. In the main Godavari river, available water is limited. However, the tributary Pranahita from Maharashtra joining at Tummidihatti and is contributing very good quantity of water.

As per Government of India, gauging from 1<sup>st</sup> June to 15<sup>th</sup> August, a quantity of 230 TMC has been let out into the down stream. Now, with the proposal of Kaleswaram lift irrigation project, this water could be utilised for lifting and also letting into Bay of Bengal. The total number of packages is 12. All the projects have been described in the following sections.

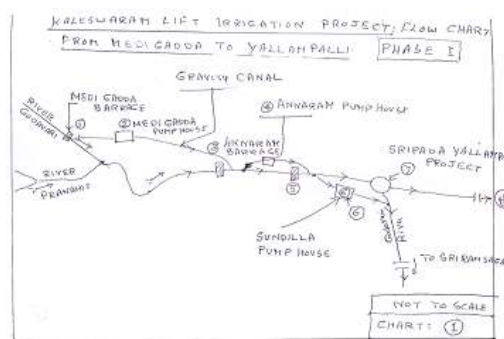


Fig.1.flow chart from Medigadda to Yellampalli (phase-I)

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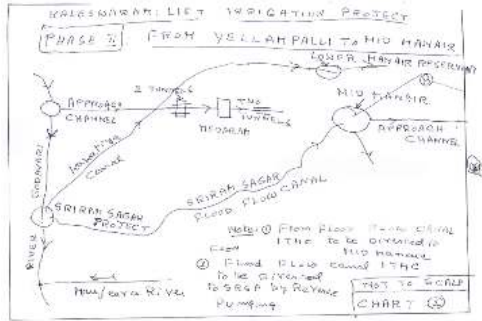


Fig.2.Flow chart from Yellampalli to Mid-Manair (phase-II)

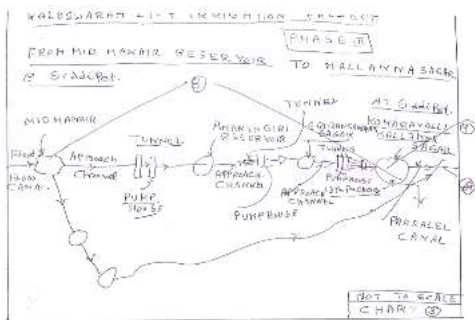


Fig.3.Flow chart from Mid-Manair to Mallanna Sagar (phase III)



Fig.4.Location Map

**II. Salient Features of the Project**

- Name the project: Kaleshwaram lift irrigation scheme.
- Proposed new ayacut = 18,25,700 acres
- Proposed water quantity = 134.5 TMC
- Towards village lying between = 10.00 TMC
- For Hyderabad towards drinking water = 30.00 TMC
- For industries = 16.00 TMC
- Total = 225.00 TMC

**A. Highlights of the Project**

The Kaleshwaram lift irrigation project is estimated to Rs. 80,500 crores. For the last three years, such a gigantic project has not been taken anywhere in India or among two Telugu states. On completion of this project it can be sure that it will be recorded in the Guinness book and create history breaking all earlier records.

**B. Three Main Phases**

At out set, it is used to be mentioned that the entire project is divided into three main phases and enclosed here through flow charts

- 1) Phase I from Meddigadda to Yellampalli
- 2) Phase II from Yellampalli to Mid-Manair
- 3) Phase III from Mid-Manair to Komaravalli Mallana sagar at Siddipet

At the out set, it is on going major irrigation project in telangana and supposed to be the biggest in the international domain. In this paper, it is divided into two parts.

- Part A: Planning & Design project
- Part B: Execution of works

**C. Part A-Planning and Design of Project**

This project has been taken up at the beginning of the Telangana formation in June and contemplating to complete within 5 to 6 years i.e. 2019 – 20.

The Total Cost of the Project is Rs 80,500 crores benefitting to the following items.

- New Ayacut 18, 25,700 Acres 134.5 TMC
- Stabilisation: 34.5 TMC
- Drinking water for Hyderabad: 30 TMC
- On way side villages for drinking water: 10 TMC
- Industrial needs : 16 TMC
- Total : 225 TMC

**D. Part B-Execution of works**

This part purely allotted to Construction Schedule only with different package. The total number of Packages is 12 and discussed below.

Studies of ongoing major multipurpose lift irrigation project namely Kaleshwaram, at medigadda on river Godavari, Jayashankar Bhupalapalli district, Telangana.

- 1) Medigada Barrage

After the confluence of Godavari and Pranahita, at medigadda, the kaleshwaram lift irrigation will start. The water level at this point is 100 meters.

- Storage capacity = 16.17 mcft.

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- This is divided into 8 blocks.
- Maximum discharge = 28.25 lakh cusecs.
- Number of gates = 8.5 nos.

Two blocks have been started on Telangana side. Towards Maharashtra, one coffer dam is proposed for another block construction. From medigadda to yellampalli it is said to be 1st phase. The salient features at medigadda barrage are-

- Length of barrage = 1.632 Km.
- Estimated involved for barrage = 19 crores.
- Estimated value of project = 1849.30 crores.
- Balance earthwork = 64.37 lakhs cubic meters.
- Work done = 17.431 cums
- Concrete work to be done = 15.08 L cums.
- Concrete work done = 17,500 cum.

Other packages in phase I include Package 2 - Medigadda pump house, Package 3-Annaram barrage, Package 4-Annaram pump house, Package 5-Sundilla barrage, Package 6-Sundilla pump house. Thus, in the 1<sup>st</sup> phase these are the six packages indicated in the Fig.1. The speciality of this reach is that there are four tunnels have been proposed and are under construction.

### 2) II phase:

From Yellampalli upto Mid-Manair, it is to be mentioned as phase II. The same is indicated in figure 2.

The speciality of this reach is that there are four tunnels have been proposed and are under construction.

Seventh package & status from Medaram Reservoir is as follows-

- The Reservoir capacity is 0.746 TMC.
- There is no lift
- Length = 11.24KM
- Two Tunnels have already been excuted.
- This work is almost completed. The lining for the tunnels also have been completed.
- Expenditure involved = 1385 crores this is being done by Max Infra company.

### 3) Phase III:

This is from Mid Manair to Mallana Sagar located at Siddipet. There are three Packages under this Phase III.

### III. Special Features of the Scheme

Contrary to the natural flow, the water will be diverted against gravity. This is the uniqueness of this scheme. At Kaleswaram, the tributary Pranahita is joining Godavari from Maharashtra. In fact, the availability of water in

Godavari is meagre. As such the down stream of Kaleshwaram from Medigadda, the water is being diverted up stream that is Yellampalli. In order to divert water from down stream reach to up stream reach, the Godavari water is being diverted through lifts.

### IV. Conclusion

The unique feature of this project is lift and gravity by reverse flow. The true land mark boundaries are SRSP Basara in Nizamabad district and kaleshwaram in karimnagar. An approximate along the Godavari river is about 300km. Infact SRSP is located at the border of Maharashtra state and Telangana. Most of the catchment area of the SRSP is being covered in Maharashtra. Therefore, the reservoir will become full occasionally. As such, the Kaleswaram lift irrigation project is life time to telangana so far, the Government of Telangana by taking a challenging big project like Kaleshwaram lift irrigation no doubt it will become news that will be recorded in the Guinness book.

It is to be mentioned, that the Govt. of Telangana, wanted to complete the project on war footing. It is already three years completed and another 3 years to be completed. The News Paper Eenadu DT 22.08.2017 has published the details of the project. According to M.L. Narasimha Reddy, Eenadu Representative expressed the following contents.

The concrete works have already been started and are in progress for the following works.

- Medigadda Lift
- Annaram Barrage

From Medigadda to Yellampally, for all the three barrages, with three lifts, the following out turn has been achieved.

- Earth work ..... 2.50 crores(cu m)
- Concrete work ..... 4.70 lakhs (cu m)

For each package, everyday 400 to 1000 labourers are working. The tunnels are already excavated and with the help of boomers. The lining works are also in progress. The concrete pouring machines are also working actively, at present, they are working with three shifts. From Yellampally to Mid Manair for diverting water, heavy tunnels works completed (24.907 KM) to be completed. At present, the tunnelling work was completed upto 24 Km.

If the same tempo of the work execution is maintained, next kharif that is 2018, June partial supply could be done and by 2019, Full capacity could be achieved.

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