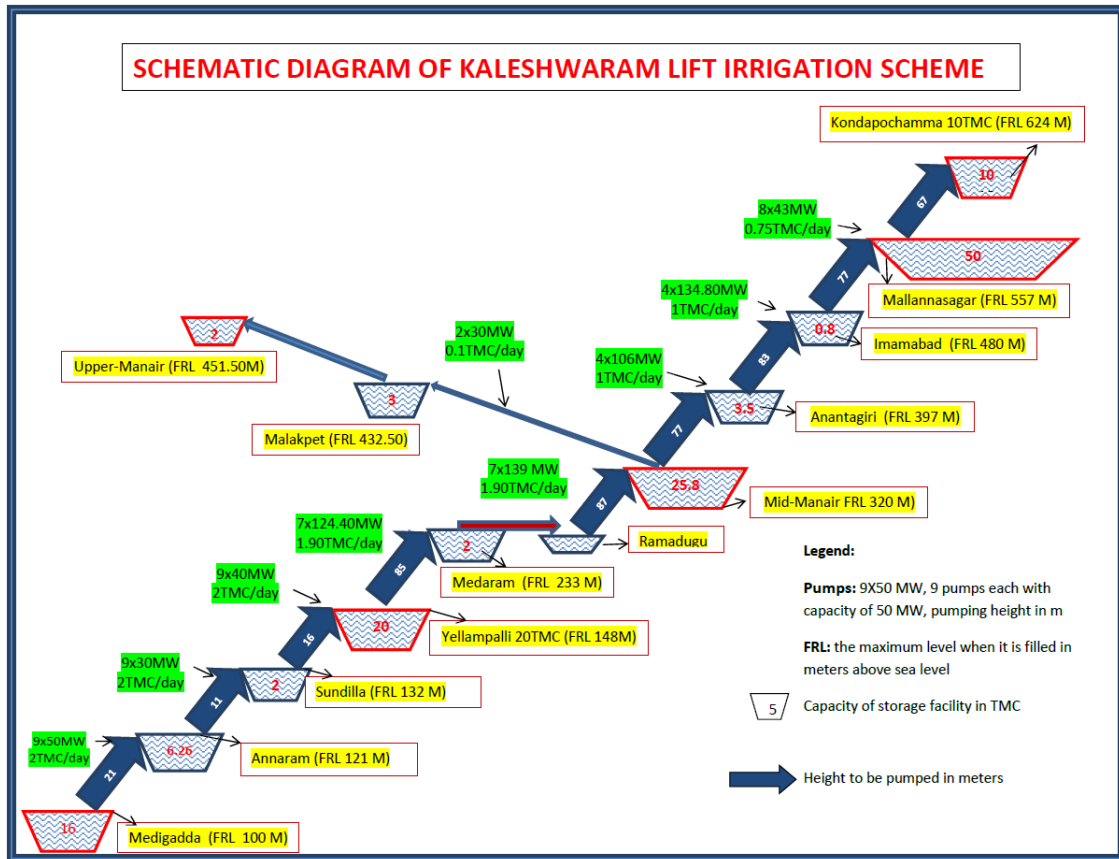


Kaleshwaram Lift Irrigation Project

Costs and Benefits: Analysis based on data in DPR



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Contents

1.0 Introduction.....	1
2.0 The DPR states that.....	2
3.0 Benefits As stated in DPR	2
4.0 Benefits from Irrigation	3
5.0 Are these figures credible?	4
6.0 Marketing of produce.....	5
7.0 Costs of Project.....	6
8.0 Conclusions	6

Kaleshwaram Lift Irrigation Project

Will it benefit Telangana farmers?

1.0 Introduction

In November 2016, a report titled “Kaleshwaram Lift Irrigation Project (KLIP): Will it benefit Telangana” was released. The report, while confirming the availability of water in Godavari, made three critical points.

- a) **Costs are too high:** Benefits of the project when completed will be much less than the costs. The operational cost, which is going to be incurred year after year, might actually exceed the income to farmers.
- b) **Area of irrigation will be far less than in the proposal:** Project may not be able to provide proper irrigation to 18 lakh and stabilisation of another 6 lakh ac acres as stated.
- c) **Need for independent review:** An informed public debate, involving independent experts might save tens of thousands of crores and may lead to better decision making process in order to provide water for Telangana farmers.

The report requested for DPR to be shared in order to facilitate more discussion and debate. Finally, after many difficulties the DPR was obtained. The information and data in DPR has further validated the report and its main and conclusions. This article is about cost benefits as mentioned in the DPR.

The DPR has six volumes, with 65 chapters some chapters having sub-sections like A,B,C and running into thousands of pages. Experts are analysing the data and outcome of that process will be shared in detailed with Telangana people. In the mean time, this particular article is about the cost benefit analysis of KLIP based on primary data provided in the DPR. For any irrigation project and the justification of the costs, DPR has to provide authentic data on kind of crops will be grown once project is completed and type of economic activity will be generated. Overall DPR has to provide data confirming that the investments out lined in the costs will lead to net benefits to farmers and nation.

It is important to reiterate the few fundamental points.

- a) Telangana farmers need water and that water has to come from Godavari. Water has to be lifted since topography is not favourable in order to construct traditional gravity flow projects.
- b) Critical analysis about Kaleshwaram project does not mean it is obstructing GoT efforts to provide water to Telangana farmers.
- c) Having DPRs on any such major project is first step, it is legally mandatory to have DPR. Data and justification in DPR is not ritual, but it should be scientific and stand the test of the time even after completion of the project.

- d) Critically evaluating such DPRs by Individuals and institutions with capacity to provide critical analysis people who are out side of Governments staff and or consultants, actually enhances the quality, projects and avoids costly mistakes and public money which can be spent properly.

If Telangana Government position, as stated by some time ago, that “at any cost Kaleshwaram project be built” then such DPRs are not needed and such articles have no meaning. Governments, including Telangana Government, can’t built projects “at any costs”, since there is set process and procedures to take up large projects which involve tens of thousands of crores. Such spending, if not done properly, will have far reaching negative impacts which will continue for decades, even after the people who are in Government may no longer be in power. That is the reason there are rules and guidelines to prepare and follow the Detailed Project Report, known as DPR. The DPRs are not rituals, but it should be based on scientific information and should stand the independent scrutiny and analysis. The report mentioned above and this particular article is such effort to put the DPRs for public scrutiny.

2.0 The DPR states that

- a) KLIP will provide water to 18.25 lakh acres of NEW ayacut and stabilises for another 6 lakh acres. A total of about 24 lakh acres are supposed to be “benefited” with water for irrigation.
- b) The project cost will be Rs. 80,450 crores.
- c) The net annual benefits with the projects will be Rs. 21,521 crores of that Rs.15, 595 crores will on the crops, which means to the farmers.
- d) The annual maintenance costs, which need to incur year after year, after completion of the project, would be Rs. 13,923 crores per year.

That is sum and substance of all the volumes of DPR. The figures and data presented in the DPR have been used for this article.

With this information, Civil Society has two options (a) to be happy with information provided in DPR and conclude that KLIP will generate benefits and Telangana state will prosper, and (b) examine the information presented in DPR to understand how those benefits are being calculated, how costs have been computed and inform the Telangana people with an independent analysis. The purpose of this article is to do the later, to examine the DPR data and figures. This is to inform people, policy makers and interested citizens for further discussion and suitable policy and programmatic changes in the broader and long-term interests of the State of Telangana.

3.0 Benefits As stated in DPR

The benefits have been estimated based on certain assumptions that farmers will grow high value crops and they produce high yields and they get high price for such produce not just once but year after year.

- i) Farmers will get net income of Rs. 15,595 crores annually, after the expenses of farming. For that DPR specified the crops, their cost of expenditure and benefit to each crop at per ha basis
- ii) Drinking water, supplied from the projects will be charged and that will fetch the income of Rs. 1,698 crores. Who will pay and how that will be collected is not specified, but let us assume that would be case.
- iii) Water to industry will fetch Rs.4,077 crores. Again which industry, where and what is not discussed.

Let us keep the income from 2,3 as it is for time being and focus on the benefits to the farmers. Let us look at how benefits to farmers have been computed.

4.0 Benefits from Irrigation

The KLIP is estimated to provide water to 18.25 lakh acres and in addition another 6 lakhs or so stabilisation. An analysis is being done if water to such large area can be provided with available water. Just give the basic idea of current irrigation in Telangana state as per the source. This data is from Government of Telangana statistical year book. For the year 2015-16, the gross area irrigated as per the sources are:

- a) Irrigated by tanks : 121,465 ha
- b) Irrigated by Canals : 61,183 ha
- c) Wells (dug and tube): 18,05,503 ha
- d) Other sources : 39,512 ha

Total area irrigated was 20,27,663 ha.

Two points, the area irrigated by canals is the only one with Government investments. That area never exceeded more than 5 lakh ha. Just one Kaleshwaram want to add close to 800,000 ha.

For discussion sake, let us keep that part aside now. Let us assume that the KLIP will indeed provide water of irrigation to all the 18 lakh acres new and additional 6 lakh acers for stabilisation as mentioned in the project document.

Net income to farmers have been computed with four assumptions

- a) **The production will improve** significantly due to irrigation.
- b) **The cost of cultivation will either remain same** or in most cases reduced on per ac or ha basis.
- c) **The farmers will go for commercial crops** and the area of these commercial crops will go up significantly high without any issues of selling the massive increase in the production.
- d) **The farmers will sell all the production at very high price.** The farmers will get the price as indicated in the DPR, year after, without any issue of selling in the open market.

This is where the discussion needs to take place. The assumption is that farmers will cultivate 13 high value crops and each of the crops and area has been specified in order to estimate the benefits. Right now generally farmers decide on choice of the crop, based on their own assessment of various aspects such as cost of production, market, their ability to mobilise resources etc. But now under KLIP, it appears, GoT will specify or so some thing so that farmers grow the specified crops mentioned in the DPR. Not only crops, but also the area for each crop will also be specified. It is not clear how that can be implemented, but let us also keep that aside. Without getting into too much detail how farmers will be encouraged, forced or directed to grow certain crops with KLIP water, let us look at the benefits as mentioned in DPR.

After removing the cost of cultivation the NET benefit by cultivating each acre of crops each season has been given below. The net income after KLIP irrigation and the current net income now without KLIP water have been given in the brackets. For the clarity the DPR computed the current net benefit by growing paddy is Rs.3,200 per acre, when KLIP water is provided that benefit will increase to Rs.28,000 per acre. All this after deducting the costs, both before and after KLIP, for each crop the figures mentioned in DPR are given below.

1. Paddy:	Rs. 28,000 (3,200)
2. Maize:	Rs. 24,000 (3,500)
3. Jowar:	Rs.12,000 (2,400)
4. Green gram:	Rs.30,000 (2,700)
5. Black gram:	Rs. 34,000 (2,000)
6. Pigeon pea:	Rs.34,000 (16,000)
7. Groundnuts:	Rs.46,000 (10,000)
8. Cotton:	Rs.42,000 (9,000)
9. Chillies:	Rs.1,56,000 (12,000)
10. Vegetables:	Rs.44,000 (3,000)
11. Turmeric:	Rs.55,000, (2,300)
12. Soybean:	Rs.40,000 (19,000)
13. Coriander:	Rs.55,000

What this means? The farmer who is cultivating Chillies today is getting Rs.12,000 per acre as net income. The same farmer, after the KLIP water will get 1,56,000 per acre, which is 13 times more. Similarly for other crops, see the figures. Both these figures, current net income and projected income figures are from DPR. This is in-spite of Telangana state producing these crops several folds, market will continue to purchase the produce at higher price and land continue to produce higher yields. This has not happened anywhere in the world and it is highly unlikely that it would in Telangana.

5.0 Are these figures credible?

No farmers in Telangana will ever belief that such high net incomes are possible under any circumstances now and in future. Today Chilli farmers are struggling to stay alive. Telling them that they will get Rs.1,56,000 per acre as

benefit, with KLIP water, that would certainly making a joke on their current situation. May be KLIP water do some magic or Government will show some miracles in order to get that income.

It is certain that credibility and reliability of the cost benefit figures presented in DPR are completely fabricated at the best and utterly ridiculous at the worst. The entire logic of this project, its rational, its basis has collapsed on such laughable projection of benefits. GoT need to the following in order to say that the data provided in DPR are credible.

- ***Convince Farmers about benefits:*** How to get net profit of Rs.156,000 per ac from growing Chillies, Rs.55,000 per ac from Turmeric, Rs.52,000 from Cotton, Rs.46,000 from Groundnut Rs.40,000 from Soybean and Rs.44,000 from Vegetables. **These six crops together comprise 15.5 lakh ac, which is 85% of the proposed irrigation with KLIP.**
- ***Convince Telangana people:*** Table 8.4 of Volume 5, Chapter 8, gives the net income from farming through KLIP water. This gives details of each crop in ha, per ha benefit after deducting the costs. With these crops farmers will get total of net income after expenses is Rs.12,730 crores. This comes to net income for every ac is Rs.53,000. This is the basis on which the entire projects cost benefits will depend.

No attempt is made in this article to estimate what might be the net benefits to farmers. That we leave to the farmers and some economists, concerned citizens to debate and discussion. An informed discussion with some real farmers who are growing chillies, Turmeric will certainly help in getting the realistic figures

6.0 Marketing of produce

Let us assume that the farmers going to go for the crops specified by DPR report, and also produce such high yields, how will the market is going to behave. Today farmers with slight increase in production of red gram, Chillies are struggling to sell their produce. Prices have fallen, farmers are crying in the market yard. When production increases, slightly the prices fall.

On 3rd April, 2017, Mr. T.Harish Rao, the minister in the Government, reported to have written to Union Agriculture Minister “to extend 50% assistance under Market intervention fund enabling it to Purchase Chillies from farmers”. This is because Chillies price dropped from Rs.10,000 to Rs.6,000 quintal following 14% increase in production.

Considering that KLIP will provide water to 18.25 lakh ac and the farmers will go for the commercial crops as suggested in DPR, and the production will be as projected by the DPR, the market will have too much of Cotton, Chillies, Red gram etc. If such phenomenal increase will have any impact on prices, it has been discussed.

What KLIP is proposing is to grow more Chillies. Currently 2014-15, the Chillies production was around 256,000 tonnes. In KLIP Ayacot, they envisaged that another 467,000 tonnes of Chillies will be produced. This will lead to a total

Chillies production of 723,000 tonnes, 300% increase. When 15% increase can lead to prices falling, then what would happen when production increases 300%.

Taking the current market price of Rs.6,000 quintal, the total value of additional Chillies produced, 467,000 tons would be Rs.2,800 crores. But Cost benefit analysis projects the net benefit, to the tune of Rs.4,560 crores. A drop of almost 50%, considering that the prices will not drop further due to 300% increase in production. There is no such understanding of markets and what will such massive production increase if at all happens to the prices. That is totally absent in DPR.

7.0 Costs of Project

- a) The costs provided in DPR, as expected will be in the lower side. For example, no irrigation project in the country ever completed with estimated cost. The current estimated cost Rs.80,450 crores will certainly be revised. To what extent this will go up, is difficult to say, but going by the other projects, this will mostly likely be doubled at least, by the time it is completed as presented in DPR. This will change every thing. So there is likely that the annual costs computation will at least go by double
- b) The cost of electricity for running the pumps has been estimated at Rs.4067 crores per year. This works about Rs.25,000 per acre, per year. It is highly unlikely that this will be within this limit. How much this will go up, it is difficult to say, but mostly likely the power need might go and as well as the cost of power.
- c) The operation and maintenance cost has been put as at Rs 1500 per ha, which is Rs 600 per acre. The current costs for existing irrigation is much higher and this cost will most likely will go up.

8.0 Conclusions

Even as presented in DPR, the per acre annual cost is close to Rs. 76,000 including Rs.25,000 per acre electricity cost. The costs of projects under any circumstances will not be less than this.

But the net incomes to farmers will certainly not what is presented in the DPR. This figure is close to Rs.85,000 per acre. There is difference of figures in DPR, while giving individual breakups for the crops the total income has been put at Rs.53,000 per acre but when in the table 8.9 it has been increased to 16,130 crores (from Rs. 12,730 cr) Even considering the lower figure of Rs.53,000 per acre per year is highly unlikely.

Considering the other factors, such as a) increase in total construction costs by the time project is completed b) actually how many of this proposed 18.25 a will actual be irrigated by when c) what would actually be cost of cultivation and net income of farmers d) what would be real power costs to entire project and how will that be arranged e) the project life has been take as 100 years, which is too much for any irrigation project with lifts etc.

Some people who are working in the Government, publicly stated that Telangana government want to construct KLIP whatever might be the capital cost, whatever might the annual operating costs. If that is the case there is no need for such DPRs and such debates and discussions. In that case, Telangana farmers need to know three things a) Government of Telangana is permanent, but running the government are temporary, they come and go and if such projects are forced with loans, half completed efforts, which has been done earlier Andhra Governments with some other motives. In that case, KLIP will certainly become a great burden on state and future generations. How that is not the case, Government should explain and b) When Government is struggling with mere Rs.5,000 crores loan waver to farmers, how it will get money to pay Rs.70,000 per acre for 18 lakh acre, year after year, when farmers are not going to get return even Rs.20,000 per acre?

DPR is a jest on farmers and farming in Telangana. If any thing DPR proved is KLIP is not about sustainable development of state, it is about some thing else. That is not difficult to conclude from the data from DPR.

If Telangana Government thinks that KLIP is going to benefit Telangana farmers and state, it should refer to an independent review of DPR consisting two eminent people one from Government and one from civil society. This review can be completed within one month. If that review confirms the figures in DPR and concludes that KLIP is indeed going to benefit farmers and state, we will publicly apologise and ask for people forgiveness. If Government is not coming forward for an independent review of DPR, then we people of Telangana will conclude that KLIP is going to push state into deep crisis.

Those who are questioning the project such as KLIP are being branded as anti-Telangana and oppose to farmers. Also another question is raised - what are the alternatives to KLIP. One thing from DPR is clear that with annual expenditure of 13,000 crores, 65 lakh farmers who has one ac of land can get every year Rs. 20,000. If farmers with one acre are getting net income of Rs.20,000 they will not ask for any water, that is for sure. Is that an alternative? Surely one can discuss with farmers and see if that is acceptable.
