ISSN: 0975-833X

Availableonlineathttp://www.journalcra.com

International Journal of Current Research
Vol. 10, Issue, 12, pp.76518-76522, December, 2018
DOI: https://doi.org/10.24941/ijcr.33520.12.2018

INTERNATIONAL JOURNAL OFCURRENTRESEARCH

RESEARCH ARTICLE

A STUDY ON PATTISEEMA PROJECT

[1,*]Dr. Chandramouli, K., [2]Dr. Pannirselvam, N., [3]Dr. Vijaya Kumar, D., [4]Sagar Reddy Avuthu and [5]Anitha, V.

[1]Professor and HOD, Department of Civil Engineering, NRI Institute of Technology, Visadala (V), Medikonduru (M), Guntur, Andhra Pradesh, India
[2]Associate Professor, Department of Civil Engineering, SRM Institute of Science and Technology, Kattankulathur, Chennai, Tamilnadu, India
[3]Principal &Professor, Department of Civil Engineering, Kodada Institute of Technology and Science for Women, Kodada, Andhra Pradesh, India
[4]Post Graduate student, Department of Civil Engineering, NRI Institute of Technology, Visadala (V), Medikonduru (M),Guntur, Andhra Pradesh, India
[5]Assistant Professor, Department of Civil Engineering, NRI Institute of Technology, Visadala (V), Medikonduru (M), Guntur, Andhra Pradesh, India

ARTICLEINFO

Article History:
Received 25th September, 2018
Received in revised form
14th October, 2018
Accepted 29th November, 2018
Published online 31st December, 2018

Key Words:
Lift irrigation,
Pattiseema, Pump and River.

ABSTRACT

The objective is to connect the two noteworthy streams of the state – Godavari and Krishna – to profit ranchers of Krishna and Guntur locale. Its essential goal is to utilize Godavari's surge waters for the adjustment of Krishna delta district that faces intense deficiency of water for water system from June to August. At present, an expected 80 TMC of the 3000 TMC of the Godavari's surge waters goes squander into the ocean consistently. Once the venture is settled, the overabundance water will be occupied to dry spell inclined Rayalaseema area. The development of the venture was finished at a quicker pace. The primary pump was authorized and water was conveyed from the Godavari into the Polavaram Right Main Canal, on 18 September 2015, inside 161 days from establishing the framework.

Citation: ***Dr. Chandramouli, K., Dr. Pannirselvam, N., Dr. Vijaya Kumar, D., Sagar Reddy Avuthu and Anitha, V.*** **2018.** "A study on pattiseema project", *International Journal of Current Research*, 10, (12), 76518-76522.

INTRODUCTION

The lift water system strategy is utilized both for watering of a specific territory overall and for water application to specific hoisted locales in the region of gravity water system (at that water is lifted from stream or from water system channels). Such mix of gravity and lift water system is fairly sensible in numerous cases. Water system with which water is provided to the framework by water-lifting gadgets is called pumping/mechanical/lift water system (by means mechanical water-lifting gadgets). Pattiseema, the lift water system venture, interlinks Godavari and Krishna Rivers through the Polvaram right channel. Andhra Pradesh Chief Minister appointed the Pattiseema lift water system venture that tries to occupy surplus Godavari water to the Krishna stream, accordingly interlinking both the waterways.

Corresponding author:* **Dr. Chandramouli, K.,
Professor and HOD, Department of Civil Engineering, NRI Institute of Technology, Visadala (V), Medikonduru (M), Guntur, Andhra Pradesh, India.

It is depicted as the primary waterway connecting venture in nation, associating Godavari with Krishna in this lower riparian state, as it has been finished in a record time of one year. The administration had thought of constructing a lift water system plot at Pattiseema town in Polavaram Mandal in West Godavari region in January 2015 to rapidly acquire Godavari water to come across the water system requirements of Krishna delta, which was begun confronting expanded water deficiency as of late, as the primary venture was relied upon to take a more extended time. The fundamental Polavarm venture was announced as a national undertaking under the AP Reorganization Act, 2014 and was existence financed by Government of India. Issued managerial endorsements with an assessed cost of Rs 4,474 crore in the year 2004, the undertaking cost was elevated to minimal over Rs 16,000 crore by 2010-11 while the head works and principle dam were still in the underlying phase of advance. Pattiseema is a transitory undertaking. When the Polovaram dam is finished, the privilege channel will be connected to the dam. The main pump of this Rs 1,300-crore venture was introduced and

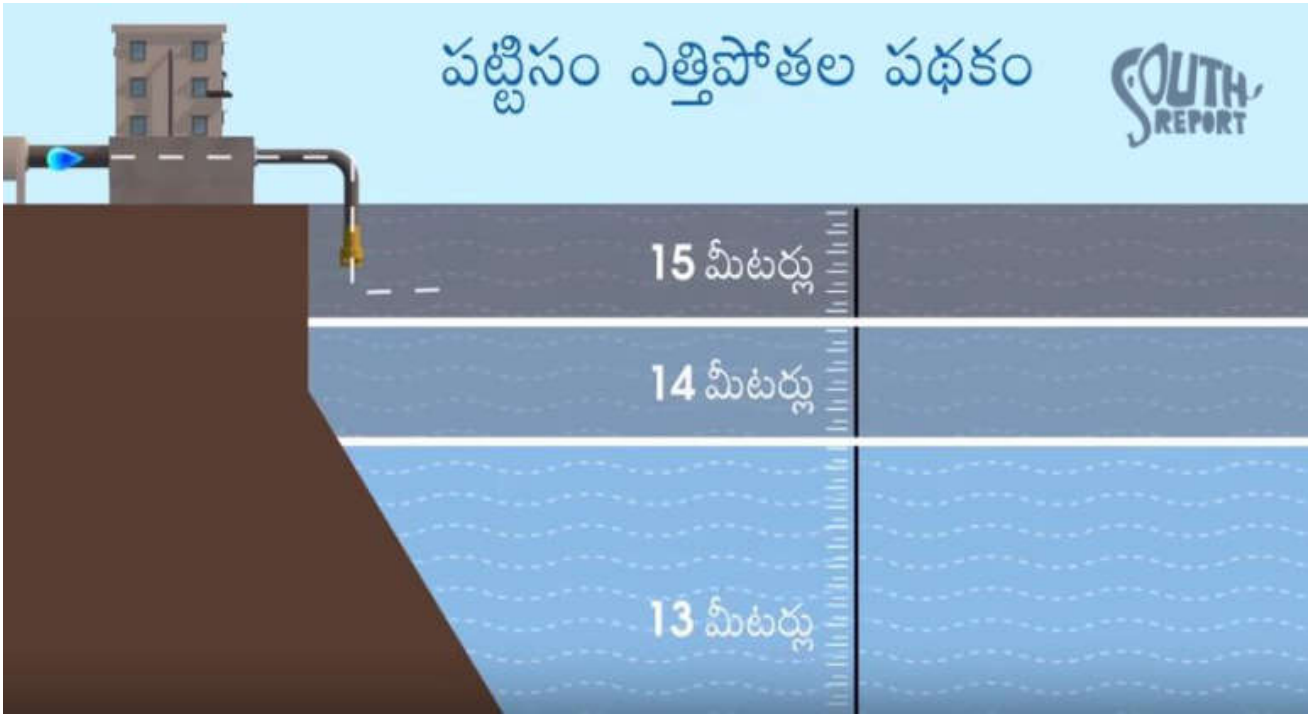

Figure 1. https://www.google.co.in/search?q=pattiseema+lift+irrigation+project+images&source

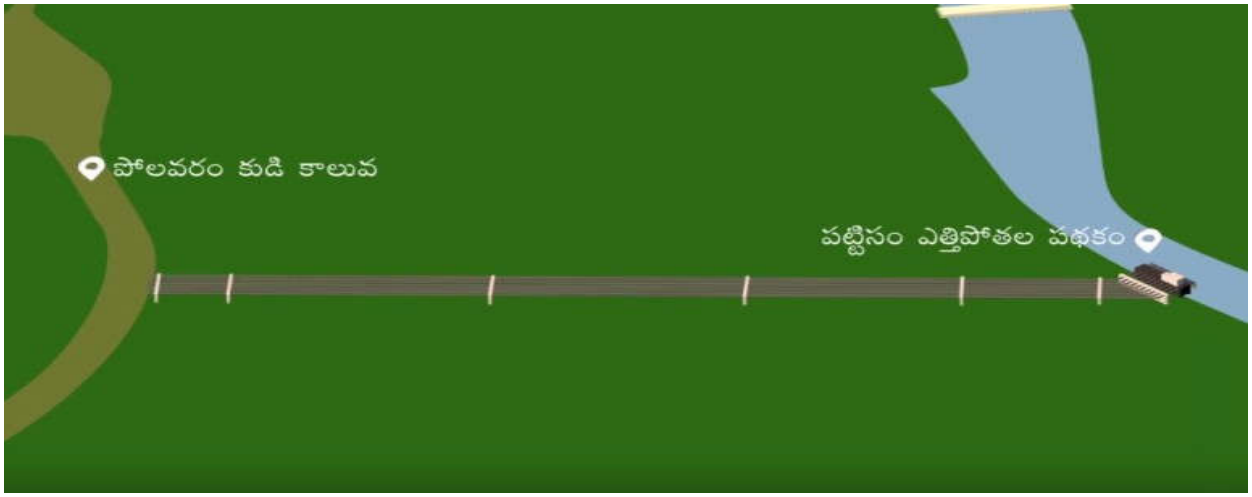

Figure 2. https://www.google.co.in/search?q=pattiseema+lift+irrigation+project+images&source

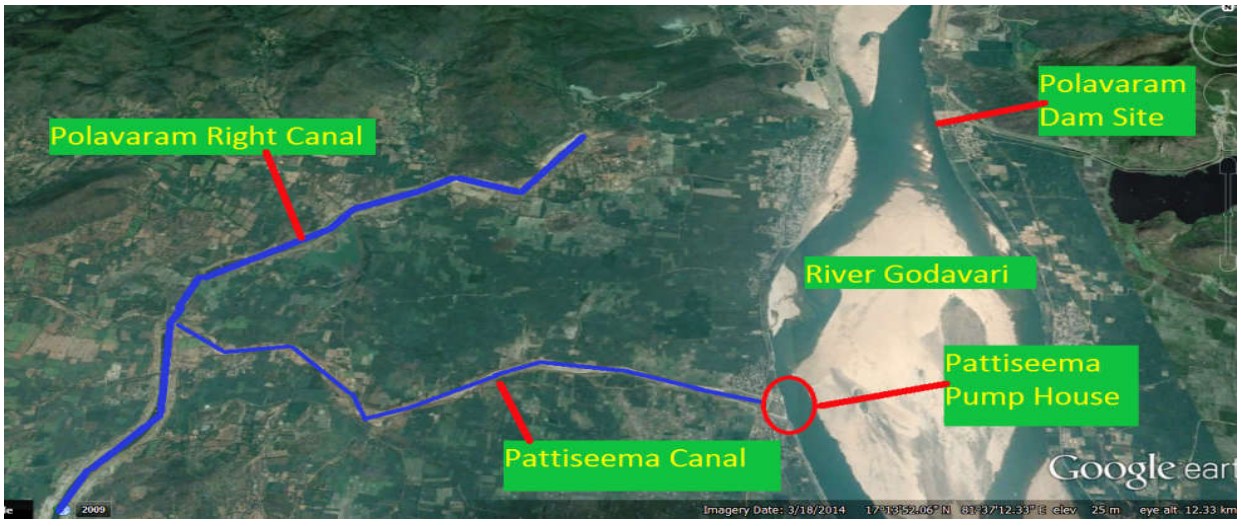

Figure 3. https://www.google.co.in/search?q=pattiseema+lift+irrigation+project+images&source

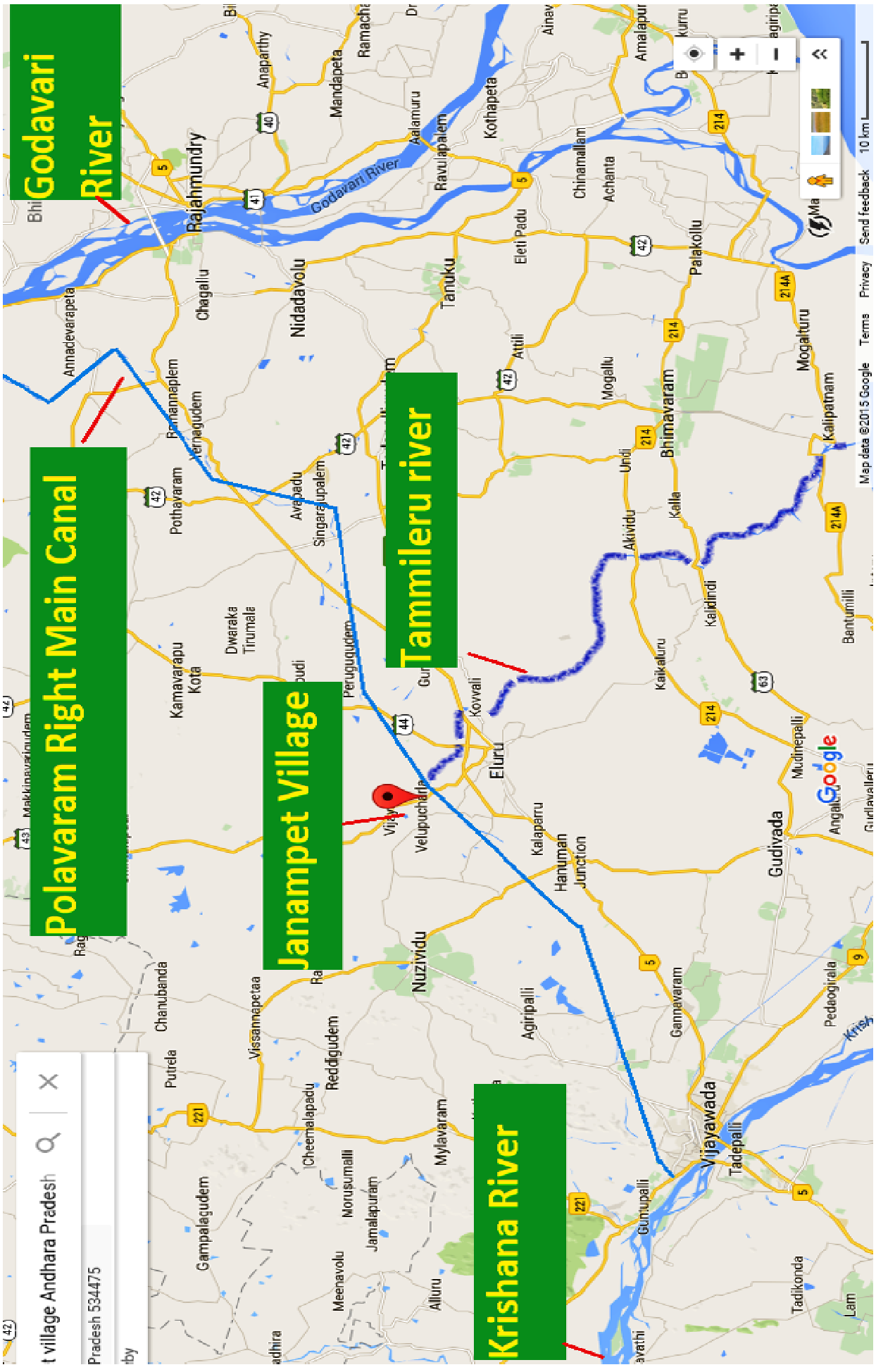

Figure 4. https://www.google.co.in/search?q=pattiseema+lift+irrigation+project+images&source

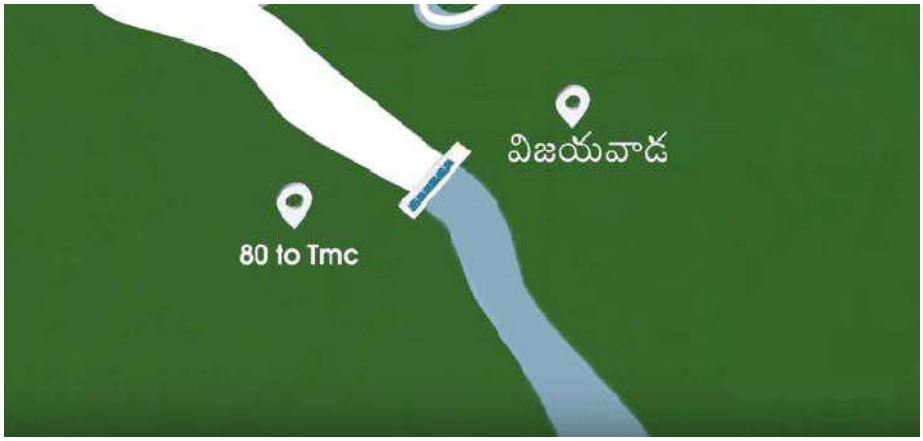

Figure 5. 80 TMCof Godavari water will reach Krishna river at Vijayawada

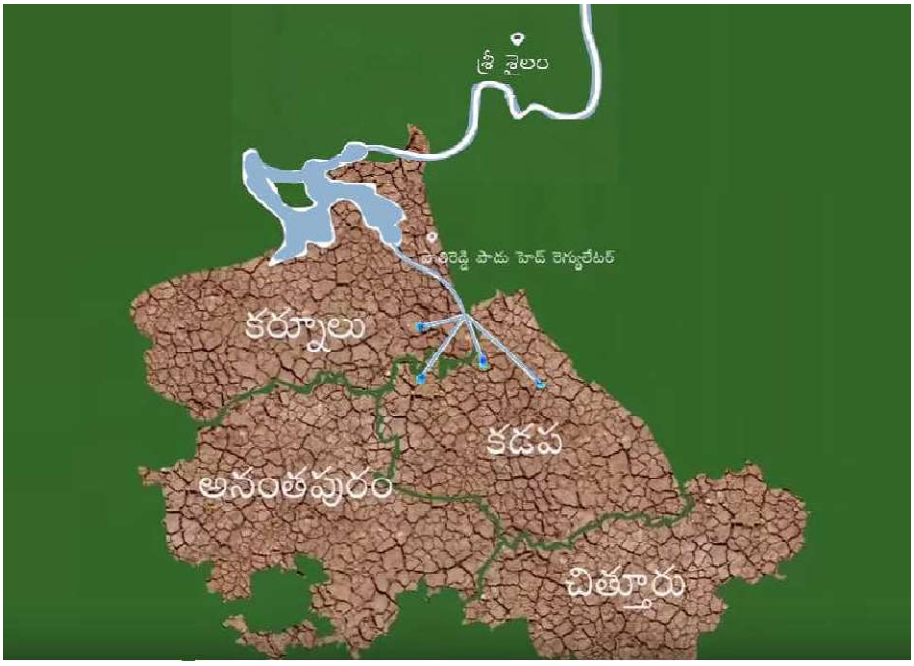

Figure 6. Saved water in River Krishna is distributed to Rayalaseema

finish the whole undertaking in one year. The task was intended to lift 80 TMC (trillion metric cubic feet) of surge water in a range of 110 days amid the flooding season among July and October from Godavari as was allowed by the Godavari Water Dispute Tribunal (GWDT) from the continuous Polavaram Multi-reason Water system Project. From this undertaking, water is pumped up to a close-by point and released into Polavaram Right Primary Canal, which convey water by gravity to a tributary of River Krishna around 170 km away in the neighboring Krishna region over the Prakasam torrent.

Project Details: The reservoir conduit was built at an expense of Rs 15 crore. Curiously, the architects asserted that the water channel work was finished in a record time of 30 days as the whole solid work, which began in July, was done by August. According to the first structure, the temporary worker needed to introduce 24 engines each to pump around 8,500 cusecs in all to take surge water. The undertaking has one of the biggest direct houses in Asia with 24 pumping units spread over a zone of 7,476 sq.m. The task has a joined ability to release 240 cumecs of water. These pumps convey water drawn from the waterway Godavari in Pattiseema into the Polavaram Project Right Main Canal to support ranchers in the Krishna stream delta.

Under the Bachawat council and between state understanding between Maharashtra, Madhya Pradesh and Andhra Pradesh, 100 TMC of water can be redirected from River Godavari to River Krishna. Pattiseema venture will convey the 100 TMC water to River Krishna. This task has helped a large number of agriculturists developing 1.3 million sections of land in Krishna delta which faces water lack in the period June to August. The water directed into trench from River Godavari would take 7-8 days to achieve Prakasam Barrage in the wake of going by gravity for around 160 km. In 2015 as a major aspect of preliminary run it has lifted 8.8 TMC of Godavari water to Krishna delta which spared standing yields worth Rs2,500 crores amid drought. Amid 2016-17 kharif season 56 TMC of Godavari water discharged alongside 20 TMC from Nagarjuna Sagartask to address issues of 11,35,900 sections of land of agribusiness and additionally 1,51,912 sections of land of aquaculture in Krishna delta.

Advantages

- Prakasam Barrage, which encourages the Krishna delta has around 130 TMC of water distribution be that as it may, was not getting its offer attributable to upstream activities and in addition the general water shortage in

Krishna bowl. Godavari-Krishna linkage will profit the Krishna delta in terms of opportune accessibility and sufficient amounts of water notwithstanding to raise the second edit.

- The water from the venture is intended to balance out 12 lakh sections of land of existing Ayacutother than meeting the second yield necessities of Krishna delta. One TMC of water is satisfactory to water 10,000 sections of land of territory, as indicated by water system engineers.
- The lift water system venture saddles surplus Godavari water, (which typically streams down into the ocean undiscovered), by drawing it to Krishna stream framework. Aside from meeting the water prerequisites prior met by Krishna stream, water from Krishna will now be utilized to serve the Rayalaseema territory. The water to be discharged from the Pattiseema lift undertaking will begradually expanded as the water stream increments. The Pattiseema venture has been depicted as a stream interface venture went for adjusting the water assets in Andhra and Rayalaseema districts of the State.
- The finishing of the venture had a few advantages. One of the greatest advantages was that there was no acceleration in expense. The regulatory authorize concurred by the Government to the plan was Rs1,300 crore.

Pattiseema has many firsts to its credit

- Unlike other water system ventures, which must be given a few expansions, the PLIS has been finished in the stipulated time of one year. It was the principal water system undertaking to be finished in the stipulated period. The organization MEIL guaranteed that that it was the first-of its-kind task in the sub-landmass as well as the whole world.
- The task was extraordinary on account of the stomach divider establishments. This is the first run through that establishments were structured with stomach dividers in the water system segment. The stomach divider configuration was utilized either in metro rails or in ports. The structure additionally encouraged working at the same time on both the substructure and the super structure which comprised of two chunks - one for the pump and the other for the engine
- Another originally was that it was authorized well before finishing. In 161 days the first pump set was authorized and water was conveyed from the Godavari into the Polavaram Right Main Canal on September 18, 2015. Generally the advantage of a water system venture can be seen simply after consumption, yet with the PLIS ranchers profited even before the undertaking was finished.
- Pattiseema may end up being hurtful to the earth. Interlinking of streams is laden with biological misfortune. Since the streams have distinctive situations, lifting water may influence oceanic life.
- The new trench will revive the groundwater more than required. This will lift up the water table strangely, making harm the root arrangement of the plants and yields up and down the trench.
- Pattiseema is connected to the (stream) Budameru preoccupation channel. On the off chance that there's flooding in Budameru, Vijayawada, parts of Krishna and West Godavari areas might be influenced.
- Farmers in West Godavari expect that inflow into Godavari delta framework will get diminished if water is redirected to Krishna.

REFERENCES

"Krishna meets Godavari in first river linkage". Retrieved 6 October 2017.

"Pattiseema Lift Irrigation helped Krishna delta farmers".

"Pattiseema Lift Irrigation Scheme/Sets record for completion in 365 days". Retrieved 6 October 2017.

"Pattiseema project makes it to Limca Book of Records". Retrieved 6 October 2017.

https://www.google.co.in/search?q=pattiseema+lift+irrigation+project+images&source.

****