



# Bharat Ka अमृत महोत्सव

75 Years of India's Independence



**Success Story of  
“Super Passage cum Single  
Lane Bridge at km 8.135 of  
Right Main Canal of  
Polavaram Irrigation Project”,  
Andhra Pradesh**



# Success story of Super Passage cum Single Lane Bridge at km 8.135 of Right Main Canal of Polavaram Irrigation Project, Andhra Pradesh

## Introduction

### ▪ Bharat ka Amrut Mahotsav (India @ 75)

The Government of India is looking to bring out a booklet as a part of the over-a-year-long commemoration planned to mark the completion of 75 years of Indian Independence in 2022, which is being referred to as “Bharat Ka Amrut Mahotsav”. Under the visionary leadership of the Prime Minister of India to commemorate 75 years of India's independence, '*Azadi ka Amrut Mahotsav of India*' is planned to start from March 12, 2021 to August 8, 2021. The idea behind it is taking 75 weeks before 15 August 2022 and by Independence Day 2023, is to instil a sense of pride in the achievements of people after 1947 and the vision of India for the year 2047.

### ▪ Background of the Project

The Polavaram Irrigation Project (PIP) is contemplated as a Multi-purpose project on River Godavari (About 42 km upstream of Sir Arthur Cotton Barrage) near Village Ramayyapeta of Mandal Polavaram, District West Godavari, Andhra Pradesh. The project is envisaged to provide annual irrigation to 4.36 lakh ha to a cultivable command area of 2.91 lakh ha (7.2 Lakh Acre) in the upland areas of West Godavari, Krishna, East Godavari, and Visakhapatnam districts, water supply for Visakhapatnam Steel Plant and industries around Visakhapatnam besides domestic water supply to towns and villages enroute, inter basin transfer of 2,265.3 million cubic metre (80 TMC) to River Krishna from River Godavari and generation of hydro power with an installed capacity of 960 (12x80) Megawatt, development of pisciculture and providing recreation facilities, navigation and tourism.

A reservoir will be created by construction of the dam near Ramayyapeta. The submergence, due to construction of the project, a lion's share of 96.7% falls in the territory of Andhra Pradesh and only 1.5% falls in territories of Odisha and 1.8% falls in Chhattisgarh. An extent of 428.02 square kilometre (1,05,721.27 acres) of land would come under submergence and 1,05,601 PDFs are to be rehabilitated and resettled due to storage of 5.511 TM Cubic metre (194.60 TM Cft) at FRL (Full Reservoir Level) 45.72 m (150 feet) in East Godavari & West Godavari Districts of Andhra Pradesh.

The Right Main Canal taking off from off-taking regulator near Totagondi village, runs for a length of 178.81 km (with design discharge at Head 497.299 cumecs, Bed width 85.50 m, Full Supply Depth 5 m) and 255 no. of canal structures. Out of total length, 109 km is in West Godavari district and 69.81 km in Krishna district. The Right Main Canal at km 178.81 is dropped into Budameru River upstream of diversion regulator and from this ultimately into Krishna River through the existing Budameru diversion channel. Polavaram Irrigation Project Right Main Canal (PIPRMC) was contemplated to provide Irrigation of 3.20 lakh acres i.e. 2.58 lakh

acres in West Godavari District and 0.62 lakh acres, 80.09 TMC allotted to meet Irrigation Demand and 84.70 TMC (including transmission losses) for diversion of Godavari water to River Krishna. Presently, the Godavari water is being delivered to Krishna River during Khariff each year through RMC by lift pumps of Pattiseema since 2016. The water so saved in Krishna Delta is being used in upper reaches of Krishna River for irrigating needy areas in Karnataka and Maharashtra to the tune of 35 TMC (24 TMC and 11 TMC respectively) and in Andhra Pradesh to the tune of 45 TMC. The main canal crosses three river courses viz. Yerrakalva, Tammileru and Gunderu where suitable aqueducts are constructed. Right Main Canal has been divided into 7 canal packages for construction purpose. About 94% of RMC has been completed so far.

- **Details of Completed Super Passage cum Single Lane Bridge at km 8.135 of Right Main Canal**

Super Passage cum Single Lane Bridge at Ch. 8.135 km under Package no. 1 of Right Main Canal connects Gangolu village on the left & Rajampalem village on the right of the Main Canal and is located in Gopalapuram Mandal of West Godavari District. During the construction of canal, temporary access provided by diversion road to the habitants of villages on both sides. Fair connectivity was established by construction of this super passage cum single lane bridge across the RMC, during June 2016.

*Table 1 Hydraulic Particulars of Super Passage cum Single Lane Road Bridge*

Sl. No.	Hydraulic Particulars	Details
1	Ground Level	+43.279 m
2	Canal Bed Level	+34.720 m
3	Full Supply Level	+39.570 m
4	Side Slopes of canal	1.5: 1
5	Free Board of canal	1.00 m
6	Bed Width of canal	86.700 m
7	Full Supply Depth	4.850 m
8	Velocity of flow	1.051 m/s
9	Designed Discharge	481.438 cumecs
10	Bed Gradient	1 in 20,000
11	Carriage Width	4.25 m
12	Angle of crossing	90°
13	Top Bank Level of Canal	+40.570 m



**Photo showing view of canal from the top of the Single Lane Road Bridge at km 8.135 of RMC**



**Photo showing view of the Single Lane Road Bridge at km 8.135 of RMC from left bank of canal**



**Photo showing view of the Super Passage at km 8.135 of RMC from upstream of canal**



**Photo showing view of the Super Passage cum Single Lane Road Bridge at km 8.135 of RMC from Downstream of canal**