IMPROVEMENT/STRENGTHENING OF MAIN RAVI CANAL AND ITS DISTRIBUTARIES

हर खेत को पानी

- Estimated Cost : 571.83 Crores
- Benefit Cost Ratio : 2.40
- Present Status : Uploading on CWC's E-PAMS portal

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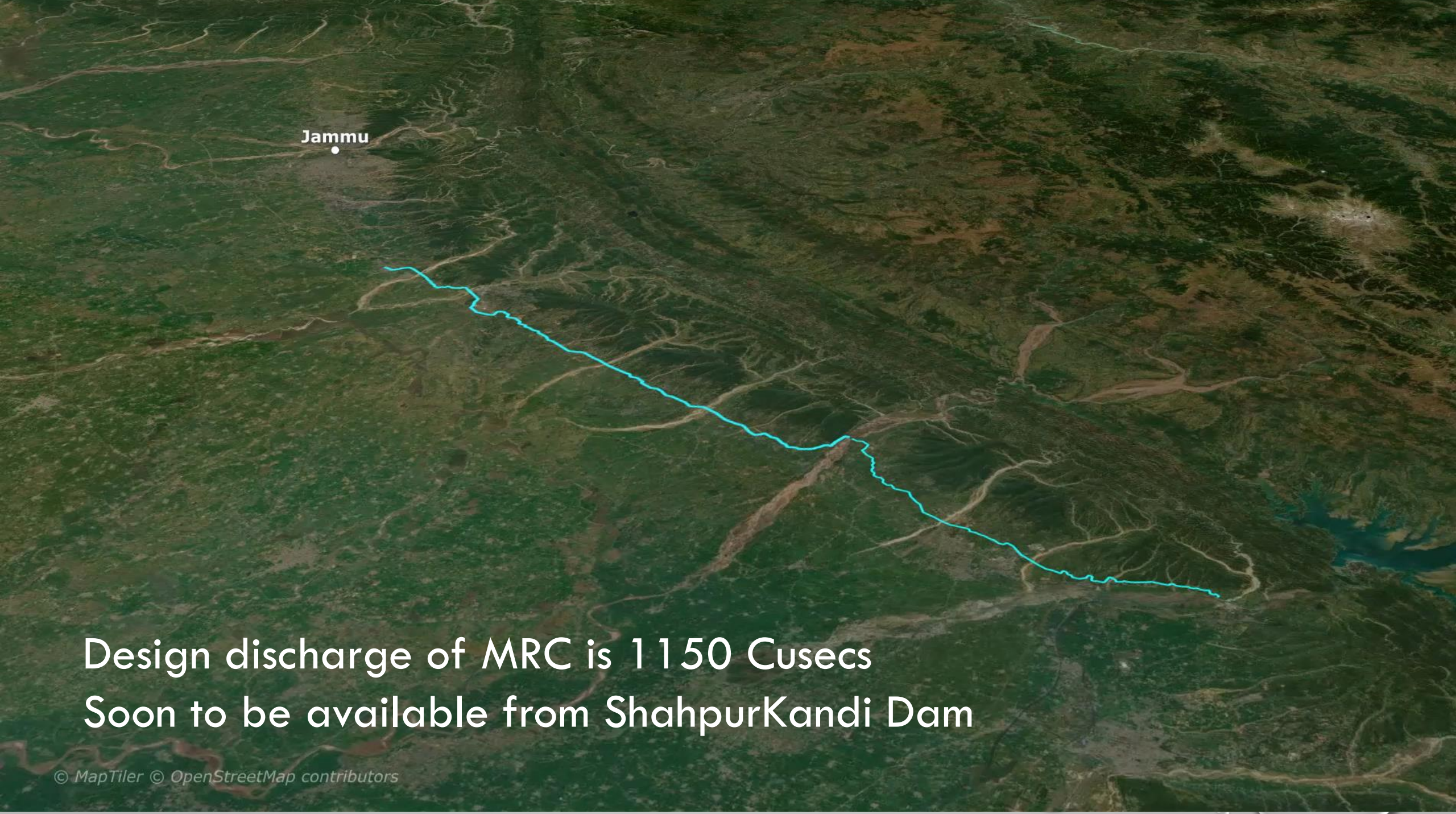
Jammu
Design discharge of MRC is 1150 Cusecs
Soon to be available from ShahpurKandi Dam
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HISTORICAL BACKGROUND

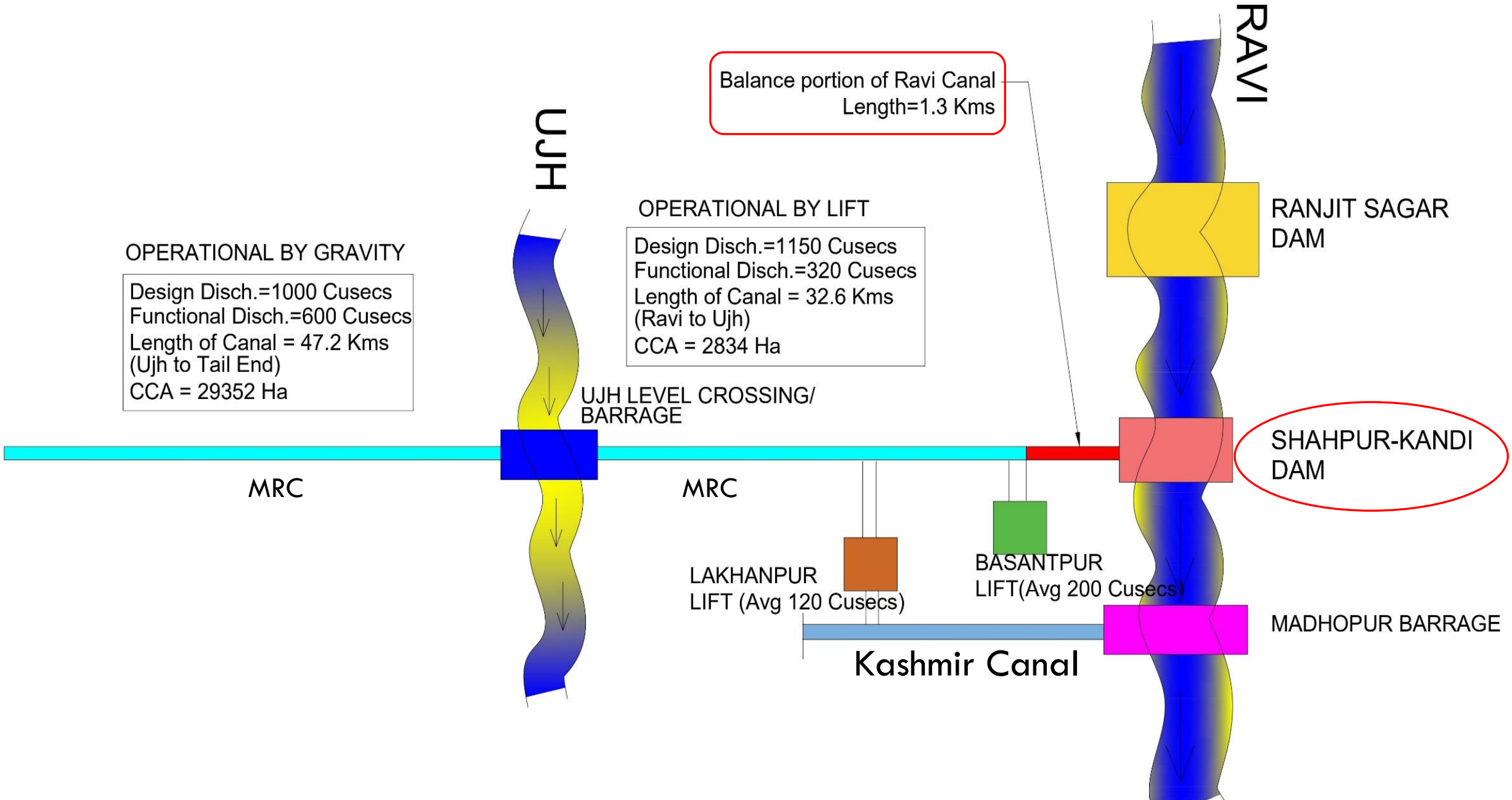
- As per the Inter-State Agreement of Jan 29, 1955 regarding Ravi River Water : A total of 0.69MAF of water from Ravi was allocated to J&K.
- 0.215MAF is being received through Kathua Kanal.
- Balance 0.475MAF was proposed later to be provided from Ranjit Sagar Dam through Ravi Canal.
- Ravi Canal Project was formulated in 1972, approved in 1973 and the construction begun in 1975.
- Inter-State Agreement of Jan, 1979, It was proposed to connect the MRC to the proposed ShahpurKandi Dam instead of Thein Dam reducing the length of balance portion of MRC to 1378m.
- With 90% of Canal network constructed and there was yet no availability of water nearby.

HISTORICAL BACKGROUND

- As an interim arrangement to make the canal functional, Govt. of J&K established two lift schemes i.e., Lakhanpur Lift Station and Basantpur lift station to operate Ravi Canal from Basantpur to Ujh River and for operation of canal from Ujh River to Tail end, Ujh Level crossing was constructed to use its water by diversion.

So this is how the Ravi Canal started to function the way it is functioning today.

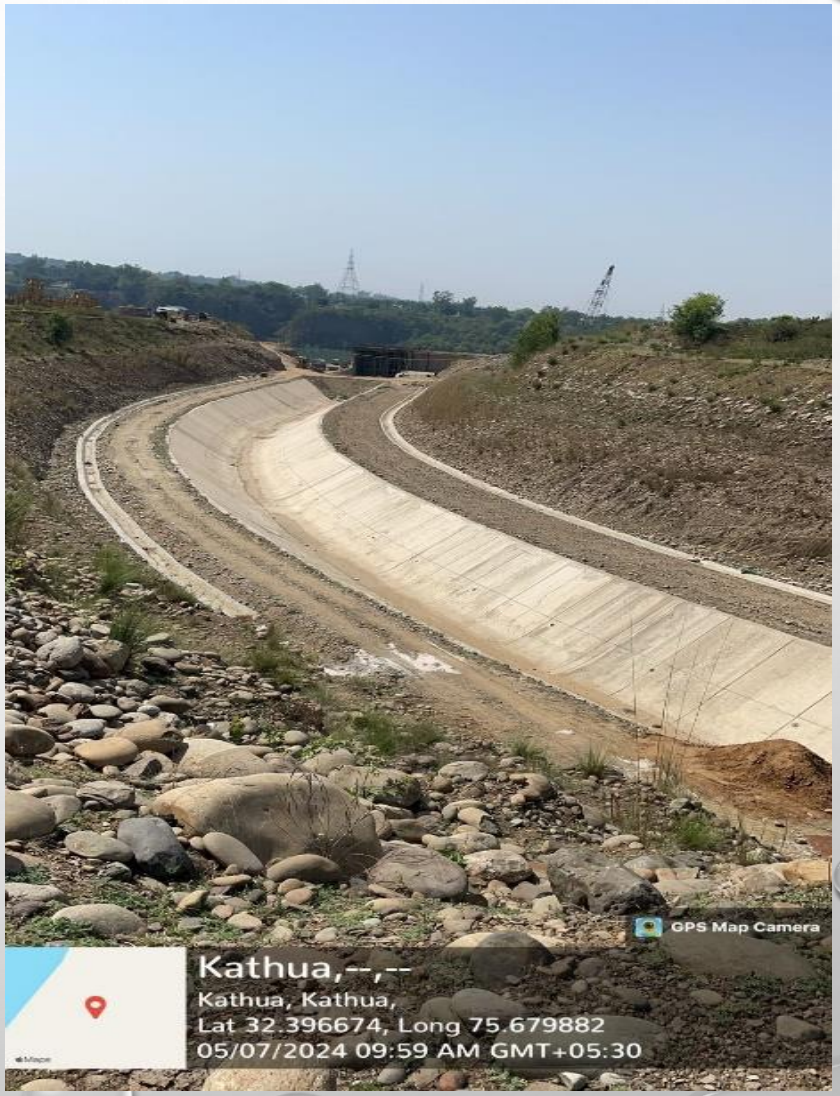
WORKING DIAGRAM OF RAVI CANAL



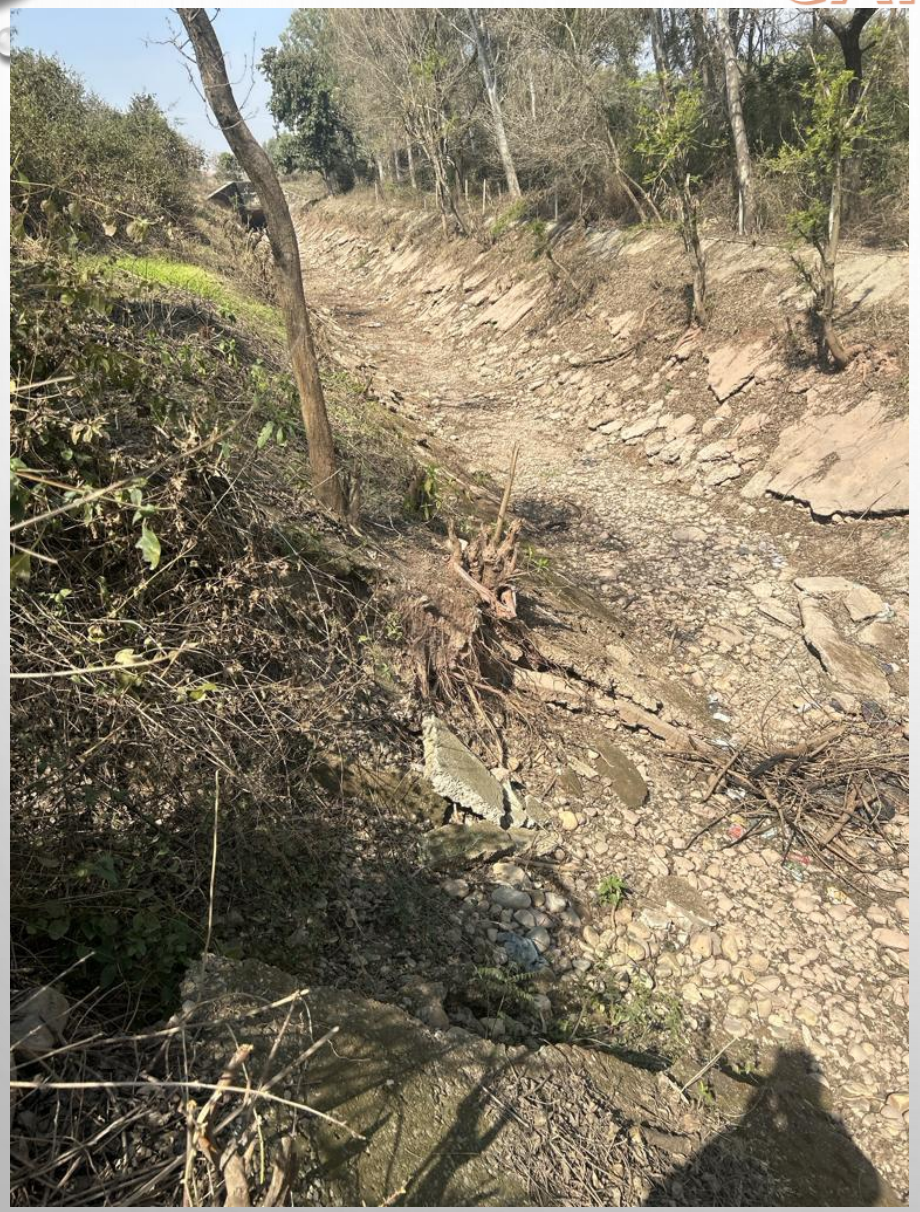
BALANCE PORTION OF RAVI CANAL (1.378 Kms)

- Being Constructed by Shahpur-Kandi Dam authority as per the agreement signed between the Government of J&K and Punjab.
- Almost 90% of the work has been completed and is expected to complete by June 2024 as stated by Shahpur-Kandi Dam authority.

1975 – 2024 : Almost 50 years of gap



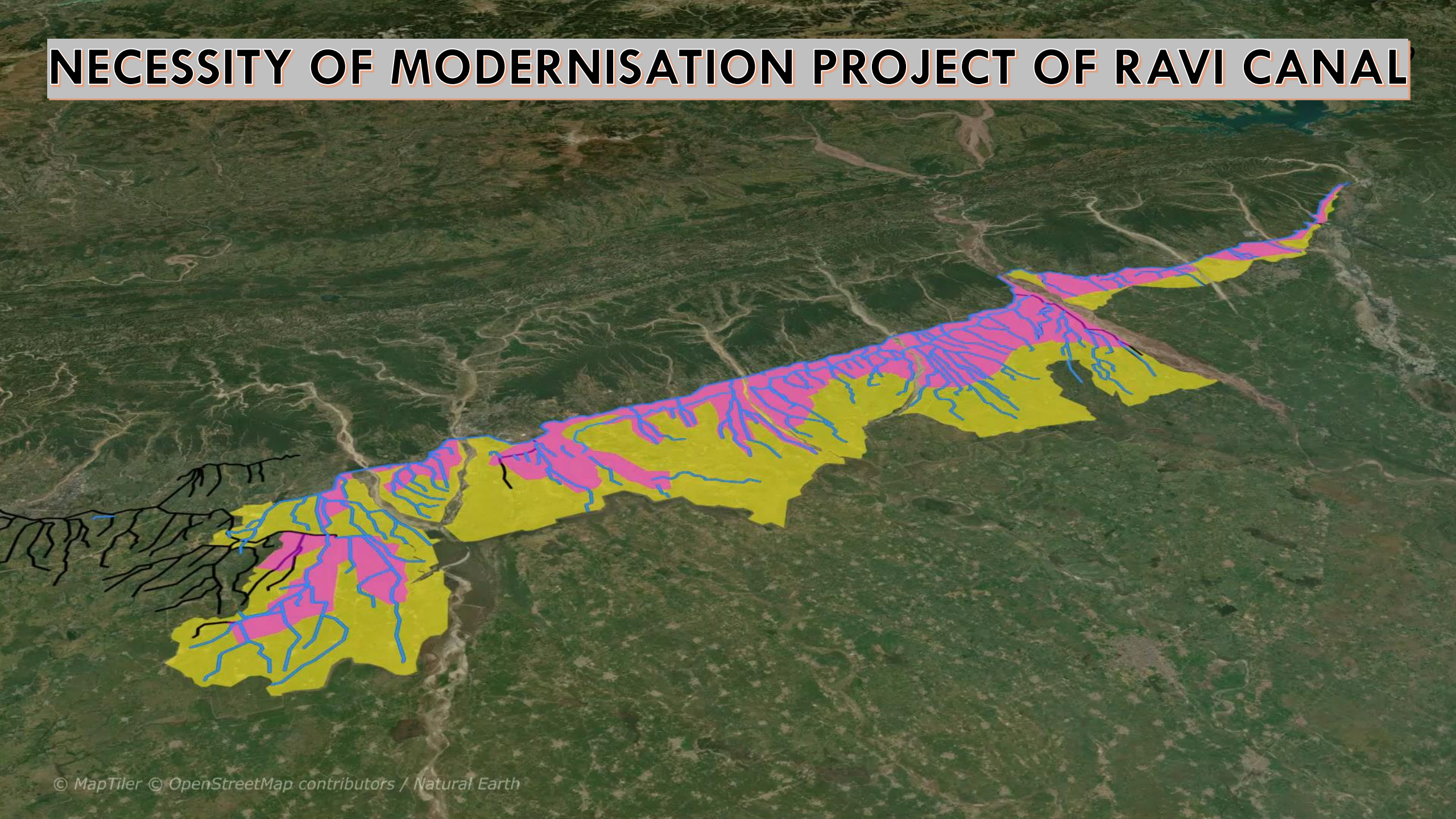
EXISTING DEFICIENCIES/DAMAGES IN THE CANAL SYSTEM



EXISTING DEFICIENCIES IN THE CANAL SYSTEM

- Due to insufficient funding and subsequently lack of proper maintenance, canal system is in damaged condition over past several years.
- The distribution system particularly, is in bad shape, and have lost their designed carrying capacity.
- Several structures and the canal lining have been damaged.
- Extensive growth of vegetation and plants inside the canal prism.
- There have been recurrent breaches and slips in several vulnerable embankment reaches.
- The deep cut reaches have suffered extensive damages due to slope slip/rock falls, collapsed lining etc.
- The net results of these deficiencies is that there is significant reduction in the irrigated area against command area.

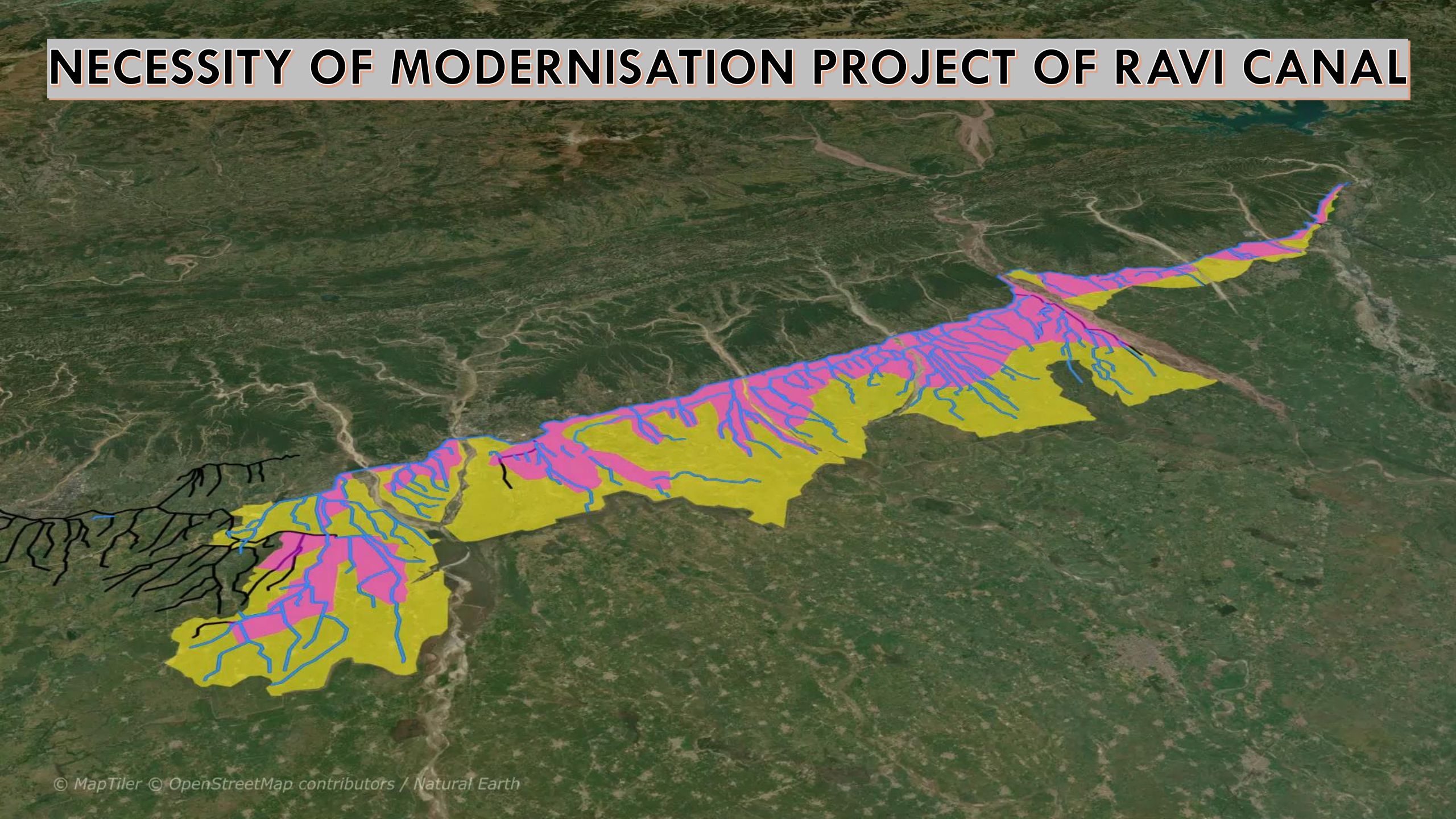
NECESSITY OF MODERNISATION PROJECT OF RAVI CANAL



SALIENT FEATURES OF RAVI CANAL

- SOURCE OF WATER- RIVER RAVI
- TYPE OF CANAL- CONTOUR CANAL
- CULTIVABLE COMMAND AREA (CCA)- 32186 HA (79500 ACRES)
- IRRIGATION INTESITY- 168%
- ULTIMATE IRRIGATION POTENTIAL- 54072 HA
- LENGTH OF MAIN CANAL-79.8 KMS
- LENGTH OF DISTRIBUTION CANAL SYSTEM- 520 KMS
- BED GRADE OF CANAL- 1 IN 3300 M
- DISCHARGE-1150 CUSECS AT HEAD AND 400 CUSECS AT TAIL

NECESSITY OF MODERNISATION PROJECT OF RAVI CANAL



MODERNISATION WORKS WILL COMPRISES THE FOLLOWINGS

A) Restoration

- Removal of silt, vegetation, brushes and plants within the canal prism area.
- Resectioning of canals and strengthening of banks.
- Mechanized placement of CC lining in vulnerable canal reaches and providing protective CC lining on upstream and downstream of canal structures.
- Repairs/restoration of damaged canal structures.
- Repairs/replacement of damaged mechanical gates and equipment's.

B) Modernisation

- Construction of canal syphon (400m approx) on river Ujh upstream of level crossing to ensure continuity of flow in canal during flood in river.
- Construction of additional distribution system (10 Kms) to cover left out/ balanced command area.
- Introducing motorized operation of gates to the optimum possible extent on important structures.

GENERAL ABSTRACT OF WORK

Particulars	Total Length/ Nos	Length/ Nos to be modernized
	MAIN CANAL	
Main Ravi Canal	79.800 Kms	37.550 Kms
Syphons	46 Nos	27 Nos
Aqueducts	09 Nos	08 Nos
Escapes	10 Nos	06 Nos
Falls	01 No	Nil
	DISTRIBUTION NETWORK	
Distributaries and minors	520.00 Kms	239.250 Kms
Syphons	32 Nos	25 Nos
Aqueducts	32 Nos	23 Nos
Escapes	05 Nos	03 Nos
Falls	661 Nos	405 Nos

SALIENT FEATURE OF DETAILED PROJECT REPORT

Name of the Project	**Improvement/strengthening of Main Ravi Canal including Distribution System**
District	Kathua and Samba
Tehsils	Kathua, Marheen, Hiranagar, Ghagwal, Rajpura, Samba, Vijaypur and Ramgarh
Project Cost	Rs. 571.83 Cr
Benefit Cost Ratio	2.40
Ultimate Irrigation Potential	54072 Ha
Beneficiaries	7544 Farmers

ADDITIONAL BENEFITS

SAVING IN GROUND WATER USAGE

There is increase in the usage of groundwater in the command areas of existing surface irrigation over the years. Ground water is not available in unlimited quantity and its exploitation requires careful planning.

CHALLENGES

- **PRE-APPROVAL OF PROJECT**

- DPR involves CCA of 32186 ha and is characterized under major project and therefore requires to be submit through E-PAMS portal of Centre Water Commission.

- It will be the first DPR of J&K government in irrigation sector of this large amount that is to be submit on E PAMS which involve uploading of data with strict guidelines of CWC chapter wise. and to complete and adhere each and every guideline of CWC with the resources available with department is challenging.

CHALLENGES

•POST-APPROVAL OF PROJECT

- For execution of work in functional canal there has been only three months working time available (Closure period) . But to execute huge quantum of work it is not wise able to wait only for closure period. We need to find out the sufficient time period window when there is least demand of Irrigation water (Rabi Season).
- Project need to be complete in a minimum possible time in order to abstract the benefits of project at an earliest. Therefore funding of the project should be done accordingly.

THANK YOU
ALL FOR YOUR TIME
PLEASE SHARE YOU VALUBALE SUGGESTIONS TO ADD MORE REFINEMENT TO DETAILED PROJECT REPORT