

Salient features of Kosi-Mechi intrastate link project

S. No.	Particulars	Details
1.0	General	
I	Name of project	Kosi-Mechi intra state link project
II	Purpose	Irrigation
III	River/ basin	Ganga
IV	Sub-basin	Kosi and Mechi
V	Project area reference to degree sheets	72 J, 72 N, 72 O
2.0	Headworks	
I	Name	Existing Hanuman Nagar barrage
II	River	Kosi
III	Longitude	86 ⁰ 54' E
IV	Latitude	26 ⁰ 11' N
V	Nearest town	Hanuman Nagar (Nepal) Birpur (India)
VI	Catchment area of Kosi basin upto existing Hanuman Nagar barrage	61792 sq km
VII	Design Flood of the existing barrage	26,900 cumec
	Access to the project	
	Nearest airport	Bagdogra
	Nearest rail head	Forbesganj
	Nearest road head	Forbesganj and Araria on NH-57
2.0	Hydrology	
a	Annual yield at 75% dependability at Hanuman Nagar barrage	43972 MCM
b	Annual water balance at Hanuman Nagar barrage at 75% dependability	27864 MCM
3.0	Offtake head regulator	Left bank head regulator of Hanuman Nagar barrage
4.0	Link canal	

I	Length	117.50 km
a	Existing Eastern Kosi Main Canal (EKMC)	41.30 km
b	New canal beyond EKMC	76.20 km
c	Total (a+b)	117.50 km
II	Flow	Gravity
III	Lining	Concrete lining
IV	Design discharge at head	573 cumec
V	Design discharge at tail	27 cumec
VI	Full supply depth at head	3.50 m
VII	Full supply depth at tail	2.00 m
VIII	Bed width at head	131.50 m
IX	Bed width at tail	15.00 m
X	Side slopes	1: 1.5
XI	Bed slope	1 : 11,000 and 1:12,000
XII	Velocity at head	1.180 m/sec.
XIII	Velocity at tail	0.706 m/sec.
XIV	FSL of canal at head	74.371 m
XV	FSL of canal at tail end	54.239 m
XVI	Number of structures	112 no.
a	Bridges	42 no.
i	Road bridge	39 no.
ii	National / state highway	03 no.
b	Syphon aqueduct	14 no.
c	Canal syphon	09 no.
d	Cross regulator	09 no.
e	Head regulator	28 no.
f	Hume pipe culvert	10 no.
XVII	Water needs of link canal	
	Irrigation	

I	Culturable command area (CCA)	
II	Existing CCA of EKMC	4.40 lakh ha
III	Proposed CCA	2.15 lakh ha
IV	Area under irrigation in new command	
a	Kharif	2,10,516 ha
b	Rabi	-
	Total	2,10,516 ha
c	Intensity of irrigation (proposed)	98%
d	Intensity of irrigation of EKMC	115%
	Water requirement	
A	Existing utilization of EKMC	6082 MCM
B	Enroute water requirement for new command	
a	Irrigation	1718 MCM
b	Transmission losses	25 MCM
c	Total for new canal	1743 MCM
5.0	Benefit- cost ratio and economic analysis	
5.1	Capital cost	
i	Unit-I, Headworks	Nil
ii	Unit- II, Canal and canalization	Rs.2684.18 crore
iii	Unit-VI, Command Area Development	Rs.219.07 crore
	Total	Rs. 2903.25 crore
5.2	Annual benefits	
	Enroute irrigation	Rs.1448.10 crore
5.3	Annual cost	Rs.395.21 crore
5.4	B. C. Ratio	3.66
5.5	IRR	27%