



**GOVT. OF WEST BENGAL
OFFICE OF THE EXECUTIVE ENGINEER
MAHANANDA CANAL DIVISION
IRRIGATION AND WATERWAYS DIRECTORATE
Tinbatti, Siliguri, Pin- 734005
Mail id: ee.mahacnldvn@gmail.com**

Memo No- 347 /1N-9/E

Date-25/04/2023

Reference No: WBIW/EE/MCD/EOI-01/2023-24.

Date: 25.04.2023

REQUEST FOR EXPRESSION OF INTEREST (EOI)

Assignment Title:

Engagement of a Consultant for preparation of Second Revised Estimate of Sub-Stage I of Stage I of Phase I of Teesta Barrage Project based on Revised CCA

EOI is hereby invited by the **Executive Engineer Mahananda Canal Division, Irrigation & Waterways Directorate** on behalf of the Governor of West Bengal through offline mode for the above mentioned work from eligible consultants/bidders having desired Prequalification eligibility credential for execution of works of similar nature and requisite financial capability. The EOI would require the consultants/bidder to only qualify for the next stage for issuance of RFP documents and submission of Technical & Financial bid.

1. Brief about objectives and scope of work

1. Preamble:

• The 1st Sub Stage of Stage 1 of Phase 1 of Teesta Barrage Project was grounded in the year 1976 after obtaining clearance/approval from Central Water Commission and erstwhile Ministry of Water Resources, GoI at an estimated cost of 69.72 crore and a target C.C.A of 3.42 lakh Hectare spreading across the districts of Coochbehar, Jalpaiguri, Darjeeling, Uttar Dinajpur, Dakshin Dinajpur and Malda. There are three barrages, five Main Canals, ancillary structures and distribution canals under the scope of the aforesaid approved project. Till 2008 a part of the Project could be completed with the fund from State Government and on some occasions from Central Government. In the year 2008, a Revised Estimated, which is basically the 1st revised estimate of the 1st Sub Stage of Stage-I of Phase-I , was approved by Central Water Commission and Ministry of Water Resources, GoI at a revised cost of Rs. 2988.61 crore. Thereafter, the Project started receiving Central Assistance under National Project from 2010. A brief account of the physical and financial progress till March, 2023 of the project is furnished below.

1. Table showing the progress of head works (Enclosed Annexure-I)
2. Table showing the progress of main canal system (Enclosed Annexure-II)

3. Statement showing the achievement of IP creation till March, 23(Enclosed Annexure-III)
4. Table showing the latest position of cumulative expenditure breaking up in to non NP and NP components. (Enclosed Annexure-IV)

- It is evident from the above tabular statements that cumulative CCA created upto March 2023 since inception is 1.28 Lakh ha against the target CCA i.e 3.42 lakh hectare (Ha). The main reason for non achievement of the target CCA attributes to i) Land related problem ii) Change of land use pattern.

- Moreover, during the recent water availability study at river Teesta at Teesta Barrage at Gajoldoba in Jalpaiguri, carried out jointly by Irrigation & waterways Department and the Central Water Commission in 2022, it transpires that there is a reduction on 75% dependable water availability in non-monsoon season in comparison to such study carried out in 1972.

- Accordingly, the Teesta Barrage Project Authority under Irrigation & Waterways Directorate of Government of West Bengal has decided to prepare a 2nd revised estimate of the project, which is basically a 2nd revised D.P.R of the 1st Sub Stage of Stage-I of Phase-I of the overall project in the backdrop of (1) dwindling trend in water availability at Teesta Barrage (2) problem in land acquisition for balance works envisaged in the 1st revised DPR approved in 2008 and (3) change in land use pattern in the envisaged command of 3.42 Lakh hectare.

- Considering the impediments faced by the Project Authority in achieving the envisaged target of the 1st Revised approved DPR, the Project Authority has planned to restrict the command area of the Project up to the end DNMC i.e. the outfall of DNMC in to Nagar river in Uttar Dinajpur abandoning the construction of NTMC. Accordingly, CCA under NTMC i.e. 1.16 Lakh Ha will be deducted from the targeted CCA of the 1st Revised Estimate of Sub-Stage I of Stage I of Phase I of Teesta Barrage Project i.e. 3.42 Lakh Ha. So it is preliminarily decided to restrict the command area of the 1st Sub Stage of Stage-I of Phase-I to 2.26 Lakh Hectare. Out of the revised target of 2.26 lakh hectare of CCA, a CCA of 1.28 Lakh has already been developed through construction of head works and canal system. So, the canal system along with appurtenant structures for the balance CCA of 0.98 Lakh hectare is to be developed further.

- Moreover, considering the impediment in land acquisition for construction of balance canal system and the likely loss in conveyance, it has been decided to go for pipe irrigation system wherever feasible in place of conventional canal system. The conventional canal system generally comprises of canals of four categories like Main Canal, Distributaries, Minors and Sub minors. Beyond these there would be field channels to cater 5-8 hectare blocks. Considering the problem in land availability for such field channel construction the option of drip and sprinkler irrigation may also be explored. However, in the 2nd Revised D.P.R the scope will be limited to the sub minor level only. The activities relating to command area development like construction of field channel, land levelling etc will be included in a separate D.P.R to be prepared separately by Water Resources Investigation & development Department, Government of West Bengal (WRI&DD). The 2nd Revised D.P.R will be submitted to Central Water Commission for their appraisal and subsequent approval by the Advisory Committee of Ministry of Jal Shakti, Government of India.

2. Objectives:

Objectives of the present assignment are:

1. To understand precisely the command area of the project which may be irrigated through the available water of Teesta at the Barrage point on 75% dependability, which has primarily been identified by the Project Authority as 2.26 lakh hectare in the backdrop of change in land use pattern, change in annual intensity of irrigation, change in availability of Teesta water and most importantly the problem of land acquisition.

2. To understand the suitability of adopting pipe conveyance system for new canals and at the gaps of existing canals where either no land is available or there are disputes on the acquired lands.
3. To finalize the alignment, design and specifications of pipe conveyance system and the methodology for its subsequent maintenance.
4. To suggest the methodology and specifications for sprinkler and drip irrigation for command area development, which may be referenced to prepare a separate D.P.R on command area development by WRI&DD, Govt of West Bengal.
5. Preparation of Second Revised Estimate as per the guidelines of Central water Commission, namely “Guidelines for Preparation of Detailed Project Report of Irrigation and Multipurpose projects-2010” of Ministry of Water Resources, Government of India. Here the total cost would be of two parts i.e. (a) the expenditure already incurred for the executed portion and (b) the cost of the balance work as per current price index and following the Schedule of rates of the State Government.
6. To understand the techno commercial viability of the revised project after evaluation of Benefit Cost ratio as per the guidelines of Central water Commission.
7. To finalize the D.P.R after compliance of the observations of Central water Commission, if any, during the process of appraisal at CWC level.

3. Broad Scope of the consultancy assignment, Deliverables and Time lines there for:

3.1 The assignment consists of the following tasks:

- The Project authority will provide the command area map of the whole project (3.42 Lakh hectare of command) showing block wise distribution of the total command. The Consultant will prepare geo referenced maps of the said command from satellite imageries, freely available at the web platform to understand the present land use pattern. Taking a reference from those and after conducting field verification for at least 10000 hectares, the command area in the revised shape has to be finalised.
- The present annual intensity of irrigation in the revised command will be supplied to the Consultant by the Project Authority having the same collected from the State Agriculture Department. The consultant will prepare the 10-daily water requirement for the whole year considering the vetted annual intensity of irrigation and also considering the other requirements like that of drinking water.
- The Project Authority will supply the 75% dependable 10-daily available water at Teesta Barrage Point from Teesta Resources which has recently been finalized by CWC.
- The Consultant will finalize the locations where pipe irrigation is to be adopted and where conventional canal system will be followed.
- The Consultant will prepare the detailed design, specification of pipe conveyance system of a distributary along with its minors and sub-minors having total command of around 10000 hectare (or that of two separate distributaries at different locations each having command area of about 5000 hectare each) for which the micro survey sheets, main canal long section, long sections of already designed conventional canal for the said distributary(s) and related data will be provided to the consultant by the Project authority. The Project Authority will supply the long sections of all the canals for which conventional canal system will be adopted.
- The Consultant will prepare 10-daily demand based on the identified pipe conveyance and conventional canal system .They will also check the demand with respect to 10-daily water availability.
- The Consultant will prepare a detailed estimate for the pipe conveyance system for the identified 1000 hectare of command and evaluate an unit cost per hectare for the same. Based on the said unit cost the cost for the whole pipe conveyance system will be found out. In the similar unit cost process the cost towards the conventional canal system will also be evaluated. The total cost of the project will be the aggregate of both the costs as well as the expenditure already incurred.
- After finalization of the cost of the Project benefit cost ratio will be evaluated which should be more than or equal to 1.5.

- The Consultant will supply the drawings and design calculation for the pipe conveyance system. The same along with the design sheet and drawing of the conventional canal system supplied by the Project Authority will be a part of the D.P.R.
- The Project Authority will supply the data on availability of land to the consultant for the irrigation system of 98000 hectare. The consultant will arrange any additional data on land availability from the Land & Land Reforms Department of the State Government.
- The Consultant will design the sprinkler and drip irrigation for command area development for three separate command, one each 100 hectare in three separate districts.
- Preparation of the 2nd Revised Estimate following all guidelines, requisite parameters as issued by the CWC.

3.2 The Consultant will use available data and studies/ records, and will work in close consultation with the I&W Department and other associated institutions/ organizations. Necessary field survey and investigation, required for design and planning for pipe conveyance system will be carried out by the Consultant.

4. The Consultant will conduct regular meetings with I & W Department.

- Seek various inputs, collection of old records, drawings, previous estimates etc.
- Discuss the progress of the work and preliminary outputs.
- Hold workshop meetings in association with the client.
- Give the opportunity to the client to make comments and suggestions.
- Resolve problems and issues that may be encountered.

5. Deliverables, timelines & payment mode are shown below:

Sl. No.	Stage	Deliverable	Timeline	Payment mode
1.	Inception Report.	Two (2) Hard copies and 1 CD	Within 30 days from Contract signing. This will include the information, data, drawings received from the Project Authority, identification of the land use pattern in the command based on satellite imageries, findings on identification of pipe conveyance system and conventional canal system and the methodology to be adopted for preparing the D.P.R	10% of approved cost.
2.	Draft Report on feasibility study regarding pipe irrigation & irrigation system	Two (2) Hard copies and 1 CD	Within 60 days from Contract signing. This will include detailed design and cost estimate for identified pipe conveyance system, unit cost for both pipe and conventional canal system, approximate projected cost of the project.	Upto 30% of approved cost.

3.	Draft Report on revised estimate & benefit cost ratio	Five (5) Hard copies, 1 CD & 1 Pen drive	Within 75 days from Contract signing. All the items required for D.P.R preparation as per CWC Guidelines of 2010 and views of the Project Authority will be conveyed to the consultant within next 15 days.	60%
4.	Final Detailed Project Report	Fourteen (14) Hard copies, 1 CD & 1 Pen drive	Within 30 days after receipt of comments from the Project Authority on the Draft.	80%
5.	Complying with CWC observation till approval.			100%

- Note:
1. Total time duration allowed for the assignment is Four (04) months.
 2. Subsequent queries if arises out of the observations by CWC or other concerned Govt. Authorities, the reply of the same have to be prepared by the Consultant on behalf of Client.
 3. The contract will remain valid till approval of the revised estimate by CWC.

6. Place of Execution of assignment

The work of execution of assignment will be in the districts of Uttar Dinajpur, Darjeeling, Jalpaiguri, Coochbehar in the State of West Bengal, India.

7. Engagement of experts and submission of work plan

The Consultant, shall provide a list of in-house personnel as well as outside experts, proposed to be engaged in connection with the assignment and a bar chart showing work plan in response to this EoI. Such experts should include experts on canal design, pipe conveyance system design and expert on estimation and GIS application.

8. Site Office of the Consultant and visit to sites

The Consultant should establish an office at Siliguri for close co-ordination with the Project Authority. They will be carrying out field visits at their own cost.

9. Client's input

The following data sets/ reports are available for providing to the Consultant:

- Index Map of the Teesta Barrage Project command showing block wise distribution of the total command area.
- Line diagram of all the proposed canals for the entire 3.42 Lakh hectare of command area, showing the already constructed part, the stretches where land is available but canal is not constructed, gaps due to land disputes, stretches where no land has been acquired.
- Design and drawing of all the conventional canal system.

- Design, drawing and micro survey sheet for the command of 10000 hectare where pipe irrigation will be the best option.
- 10- daily water availability from Teesta Resources at Teesta Barrage Point.
- Annual intensity of cropping pattern duly vetted by the State Agriculture Department
- Copy of the approved 1st revised Estimate.
- Details of already incurred expenditure.
- Latest Canal wise data on IP created & utilized.

10. Shortlisting of consultant based on Pre Qualification criteria:

Consultancy Tender Evaluation Committee (CTEC) to be constituted by Irrigation & Waterways Department for carrying out this consultant selection procedure shall evaluate the consultants for short listing, among the EOIs received, and based on the following short listing criteria:

A. Pre qualification criteria and the documents/information to be furnished with the application against this EoI.

i) The firm should have at least Three years' experience in the business of providing consultancy service of similar nature. (Provide a brief description of the organization including ownership details, date and place of incorporation of the firm, objectives of the firm, details of similar assignments undertaken in last five financial years)

ii) The firms shall be financially sound with an average annual turnover of more than INR 50.00 Lakhs during any three years of the previous five financial years. Authenticated documents have to be submitted. (Provide Audited Financial Reports of such three financial years during last 05 years must be attached).

iii) The firms should have substantially completed at least one similar assignment of preparation of D.P.R of any Irrigation Project under any State Government or Central Government, preferably comprising of pipe conveyance system of value not less than 100.00 Lakhs in the last five years for Central/State Government projects. (Provide letter of Award of contract from the employer and completion certificate issued by an official of Division level).

iv) Availability of skilled personnel among staff having sufficient experience in similar nature of work, (Provide individual CV of such personnel).

v) Provide self-signed (& seal) copy of all statutory documents like valid certificate of incorporation, trade license, G.S.T. registration certificate, professional tax certificate, IT returns of last 03 years, PAN card , legal documents for Joint venture firms / partnership firm deed etc.

vi) Apply in original letter head of bidder for submission of EoI (with all requisite documents as enclosure) with name & dated signature of authorised person to sign on behalf of bidder along with contact information : e-mail id , mobile number of same. This application must contain the declaration “ All the information and statements made in this proposal are true and we accept that any misinterpretation contained in this proposal may lead to our disqualification by the client at any stage”.

(B) Short listing process to be followed.

The short listing will be carried out by the CTEC based on the following matrix of marking with the under mentioned weightages:-

1)The Engaging Department shall evaluate the consultants for short listing, inter- alia, based on their past experience of handing similar type of projects, strength of their man power and financial strength of the firm.

2) The engaging Department may assign scores to the response of each consultant based on the weightages may be used for such evaluation:

Serial no.	Criteria	Weightage
1.	Past experience of the firm	60%
	• Number of years experience	20%
	• Past experience of studies/ job of similar nature	50%
	• Past experience in carrying out studies/ job in related sectors.	20%
	• Job carried out with pipe and sprinklers	10%
2	Experience of Key personnel	25%
	• Qualifications	30%
	• Relevant experience	70%
3	Financial strength of the consultant	15%
	• Turnover figure for last three years.	50%
	• Net profit figure for last three years	50%

3)The Engaging Department shall short list all the consultants who secure the minimum required marks [normally 60%]. The minimum qualifying requirement shall be specified in the EOI document.

4) Alternatively, the engaging Department may specify in the EOI document minimum qualifying requirement for each of the criteria i.e. minimum years of experience, minimum number of assignments executed, minimum turnover etc. Under such circumstances, the engaging Department shall apply pass-fail test and short list all the consultants who meet the minimum requirement as specified.

The short lists shall normally comprise at least three firms.

The consultants who secure at least 60 marks will be shortlisted.

11. Bid Processing Fees

There will not be any bid processing fees.

11.(A) Schedule of bidding process for EOI

11.(A).1 EOI Publishing Date on 28.04.2023 in news papers and Departmental website www.wbiwd.gov.in

11.(A).2 Document of EOI Download from www.wbiwd.gov.in on 28.04.2023 at 12:00 Hrs onwards.

12.(1) Last date of submission of Expression of Interest

Expression of Interest with all relevant information and documents must be submitted superscripted Expression of Interest for '**Preparation of Second Revised Estimate of Sub-Stage I of Stage I of Phase I of Teesta Barrage Project based on Revised CCA**' on top of a closed envelope to the address below by not later than 15:00 hours (IST) on **22.05.2023**. In event this last date being declared as holiday by the State

Government, due date for submission of above EOI will be the next working day at the same appointed time.

12.2 EOI opening date 22.05.2023 at 15:30 Hrs.

12.3 Evaluation of EOI by CTEC:- To be decided by the TIA

Note: No proposals (Technical or Financial) are required now. On the basis of information provided by interested consulting Firms the Authority will prepare a short list of firms who will be invited to submit detailed proposals in the RFP.

13. Place of submission of Expression of Interest

Office of The Executive Engineer
Mahananda Canal Division
Irrigation and Waterways Directorate
Tinbatti, Siliguri, Pin- 734005
Mail Id: ee.mahacnldvn@gmail.com
Phone: 7908410845

14. A pre bid meeting will be arranged on 10.05.2023 at 14.00 hrs.

15. The shortlisted consultants will be provided detailed RFP copy which has to be submitted by the Consultant in due time for evaluation by the CTEC following combined Quality cum cost based evaluation following the State Finance Department's order No. -8385 F(Y) dated 22.11.2013.

Sd/-

Executive Engineer
Mahananda Canal Division
Tinbatti,Siliguri

ANNEXURE-I

Physical progress of head work

The physical progress of head work of the project till 31.03.2023 is as under:

Sl no	Component	Progress till 31.03.2023			Remarks
		under NP in terms of Length (Km)	Overall progress interms of length (Km)	In %	
1)	Headworks				
(i)	Main Barrage (Teesta Barrage)	---	---	100%	Completed before AIBP
(ii)	Mahananda Barrage (Pick up Barrage)	---	---	100%	
(iii)	Dauk Barrage (Pick up Barrage)	---	---	100%	

ANNEXURE-II

Physical progress of Main Canal System

SI No	Component	Progress till 31.03.2023			Remarks
		under NP in terms of Length (Km)	Overall progress in terms of length (Km)	In %	
1)	Main Canal				
(i)	Right bank Main Canal				
(a)	TMLC	0.00	25.75	100%	Completed before AIBP
(b)	MMC	0.00	32.22	100%	Since inception
(c)	DNMC	10.43	80.20	88%	Since inception
(d)	NTMC	---	42.20	0%	Yet to start
(ii)	Left Bank Main Canal				
(a)	TJMC	1.82	30.31	100%	Since inception
	Total Length	12.25	210.68	75.4%	
2)	Distributary, Minor, Sub-minor				
(a)	TMLC	13.29	332.27	93%	
(b)	MMC	15.16	303.29	70%	Since inception
(c)	DNMC	38.45	768.93	47%	Since inception
(d)	NTMC	---	385.56	0%	Yet to start
(e)	TJMC	54.06	491.43	36%	Since inception
	Total Length	120.96	1059.51	46.4%	

ANNEXURE-III

IP Creation till March,2023

District(1)	Block (2)	Name of Main Canal(3)	Name of Canal (4)	Canal-wise Design C.C.A.(Ha) (5)	C.C.A. Developed / Created (Ha)(6)		I.P. Created till2022 (Ha) (7)	
Jalpaiguri	Rajganj	Teesta Mahananda Link Canal	Dy-1 (L) of TMLC	3400	51188	43898	5236	
			Dy-2 (L) of TMLC	10000			12012	
			Dy-3 (L) of TMLC	774			1155	
			Dy-4 (L) of TMLC	817			1132	
			Dy-5 (L) of TMLC	156			240	
			Dy-6 (L) of TMLC	116			179	
			Dy-7 (L) of TMLC	1176			1811	
			Dy-8 (L) of TMLC	47			72	
			Dy-9 (L) of TMLC	530			531	
			Dy-10 (L) of TMLC	3913			5542	
	Jalpaiguri Sadar			K.T.I. System			6221	9580
				Dy-1 (L) of TMLC			3888	5221
				Dy-2 (L) of TMLC			13050	18572
Cooch Behar	Haldibari		Dy-2 (L) of TMLC	7100	4103	6319		
Jalpaiguri	Kranti & Mainaguri	Teesta Jaldhaka Main Canal	Dy-1 (R) of TJMC	1640	38000	14135	2526	
			Dy-1A (R) of TJMC	298			459	
			Dy-2 (R) of TJMC	1760			2710	
			Dy-3 (L) of TJMC	1080			1663	
			Dy-4 (R) of TJMC	15327			9240	
			Dy-5 (R) of TJMC	2993			3450	
			Dy-6 (R) of TJMC	14902			1720	
Darjeeling	Phansedewa	Mahananda Main Canal	Dy-1 (L) of MMC	766	55338	45620	616	
			Dy-2(L) of MMC	150			231	
			Dy-3 (L) of MMC	2576			3234	
			Dy-3A(L) of MMC	1400			1940	
			Dy-4 (R) of MMC	13465			16399	
			Dy-5(R)of MMC	350			308	
			Dy-5A(R) of MMC	1104			816	
			Dy-6 (L) of MMC	550			416	
			Dy-7(R) of MMC	4013			5421	
			Dy-10 (R) of MMC	1400			833	
			Dy-11 (L) of MMC	29564			40040	
Uttar Dinajpur	Chopra	Dauk Nagar Main Canal	Dy-1 (R) of DNMC	2477	49191	24282	385	
			Dy-2 (L) of DNMC	17928			20020	
Uttar Dinajpur	Chopra	Dauk Nagar Main Canal	Dy-3 (L) of DNMC	1088	1386			
			Dy-5(R) of DNMC	1581	2435			
			Dy-9 (L) of DNMC	14654	3483			
			Dy-10(L) of DNMC	2726	792			
	Islampur				Dy-16(L) of DNMC	4181	3602	
					Dy-18(R) of DNMC	1922	2310	
					Dy-19(L) of DNMC	2634	2981	
					Total	193717	127935	197020

ANNEXURE - IV

Cumulative Expenditure

Total expenditure incurred till March, 2014	Rs. 1459.18 Crores
Expenditure incurred during 2014-2015	Rs. 6.58 Crores
Expenditure incurred during 2015-2016 to 2021-22	NIL
Total Expenditure incurred till 31.03.2022	Rs. 1465.76 Crores

Project Cost Details

1	Included in National Projects Scheme in year	2010-11 [^]
2	Approved cost as on 01.04.2008 (Rs. Cr) (Original Approved in May 1975)	69.72
3	Revised Cost (Rs. Cr) (PL 2008)	2988.61
4	Expenditure incurred up to 31.03.2008 (Rs. Cr)	1180.04
5	Expenditure during 01.04.2008 to 31.03.2022	285.72
6	Total Expenditure incurred till 31.03.2022	1465.76
7	Balance cost as on 01.04.2022 (Rs. Cr)	1522.85
8	Balance CA as on 01.04.2022(Rs. Cr)	1370.565
9	Balance State Share as on 01.04.2022 (Rs. Cr)	152.285

[^] under National Project Scheme, 1st CA was released during 2010-11 (During 2008-09, CA was released under AIBP Scheme)

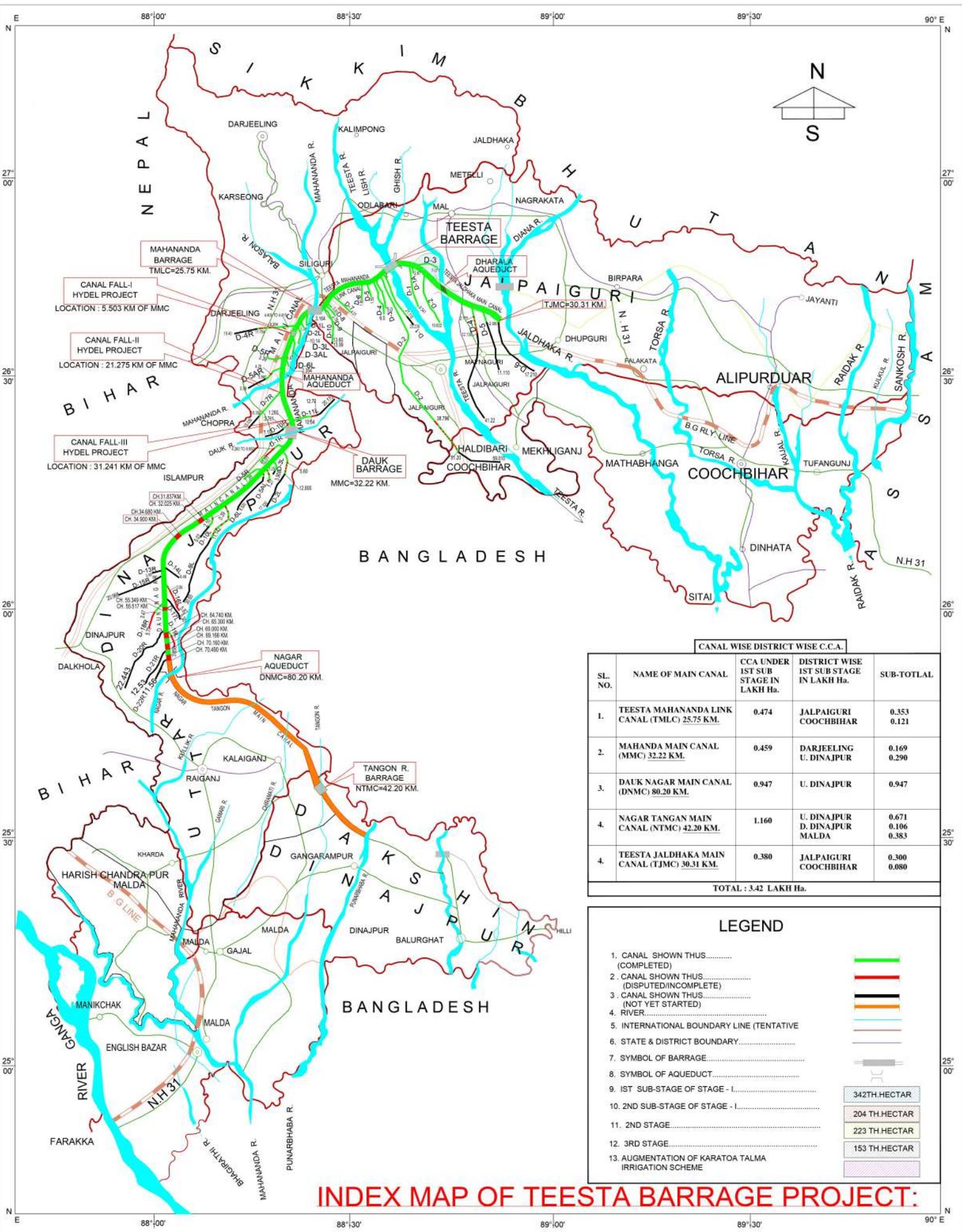
Note: Around 49% (i.e. Rs 1465.76 Crores) of TAC of Rs 2988.61 Crores has been spent till date.

Central Assistance/State Share released under AIBP/NP (Rs in Cr) :

CA/State share	Cumulative upto 31/03/2008	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16 to 2021-22	Total
CA	246.99*	21.93 ^{^^}	0.00	81.00 ^{^^}	97.20	0.00	0.00	0.00	0.00	447.12
SS	933.05	34.23	31.56	9.00	10.80	0.00	0.00	0.00	0.00	1018.64
Expenditure	1180.04	56.16	31.56	0.00	89.30	79.26	29.36	6.58	0.00	1465.76

*Includes Rs 116 Crores prior to 1996-97.

^{^^} under National Project Scheme, 1st CA of Rs 81 Crores was released to during 2010-11 (during 2008-09, CA was released under AIBP Scheme)



CANAL WISE DISTRICT WISE C.C.A.

SL. NO.	NAME OF MAIN CANAL	CCA UNDER 1ST SUB STAGE IN LAKH Ha.	DISTRICT WISE 1ST SUB STAGE IN LAKH Ha.	SUB-TOTAL
1.	TEESTA MAHANANDA LINK CANAL (TMLC) 25.75 KM.	0.474	JALPAIGURI COOCHBIHAR	0.353 0.121
2.	MAHANADA MAIN CANAL (MMC) 32.22 KM.	0.459	DARJEELING U. DINAJPUR	0.169 0.290
3.	DAUK NAGAR MAIN CANAL (DNMC) 80.20 KM.	0.947	U. DINAJPUR	0.947
4.	NAGAR TANGAN MAIN CANAL (NTMC) 42.20 KM.	1.160	U. DINAJPUR D. DINAJPUR MALDA	0.671 0.106 0.383
4.	TEESTA JALDHAKA MAIN CANAL (TJMC) 30.31 KM.	0.380	JALPAIGURI COOCHBIHAR	0.300 0.080
TOTAL : 3.42 LAKH Ha.				

LEGEND

1. CANAL SHOWN THUS..... (COMPLETED)
2. CANAL SHOWN THUS..... (DISPUTED/INCOMPLETE)
3. CANAL SHOWN THUS..... (NOT YET STARTED)
4. RIVER.....
5. INTERNATIONAL BOUNDARY LINE (TENTATIVE)
6. STATE & DISTRICT BOUNDARY.....
7. SYMBOL OF BARRAGE.....
8. SYMBOL OF AQUEDUCT.....
9. 1ST SUB-STAGE OF STAGE - I.....
10. 2ND SUB-STAGE OF STAGE - I.....
11. 2ND STAGE.....
12. 3RD STAGE.....
13. AUGMENTATION OF KARATOVA TALMA IRRIGATION SCHEME

INDEX MAP OF TEESTA BARRAGE PROJECT:

Copy forwarded for information and wide circulation through the Notice Board to the:----

- 1) Secretary to the Govt. of West Bengal, Irrigation & Waterways Department.
- 2) Financial Adviser, Irrigation & Waterways Department.
- 3) Chief Engineer (Teesta Barrage Project),Irrigation and Waterways Directorate, Govt. of W.B., 2nd mile, Siliguri
- 4) Joint Secretary (Works), Irrigation & Waterways Department.
- 5) Superintending Engineer, Mahananda Barrage Circle,Tinbatti,Siliguri.
- 6) Superintending Engineer, Teesta Barrage Circle,2ND Mile, Siliguri.
- 7) District Magistrate, Darjeeling
- 8) District Magistrate, Jalpaiguri
- 9) District Magistrate, Uttar Dinajpur
- 10) District Magistrate, Coochbehar.
- 11) Deputy Secretary-II, Irrigation & Waterways Department.
- 12) Executive Engineer, Mahananda Barrage Division, Tinbatti,Siliguri.
- 13) Executive Engineer, Teesta Canal Division-I, Islampur, Uttar Dinajpur.
- 14) Executive Engineer, Teesta Canal Division-II, Islampur, Uttar Dinajpur.
- 15) Executive Engineer, Mahananda Link Canal Division, 2nd mile, Siliguri.
- 16) Executive Engineer, Teesta Irrigation Division. Assam more,Jalpaiguri.
- 17) Executive Engineer, Teesta Barrage Division, Odlabari
- 18) Executive Engineer, Teesta Left Bank Division, Odlabari
- 19) Executive Engineer, Teesta Monitoring & Evaluation Division, Tinbatti,Siliguri.
- 20) Executive Engineer, Teesta Quality Control Division, Tinbatti,Siliguri.
- 21) Executive Engineer, Teesta Design Division, Tinbatti,Siliguri.
- 22) Notice Board, Mahananda Canal Division, Tinbatti,Siliguri..



Executive Engineer
Mahananda Canal Division
Tinbatti,Siliguri