



भारतीय अन्तर्देशीय जलमार्ग प्राधिकरण

(पोत परिवहन मंत्रालय, भारत सरकार)

मुख्यालय : ए-13, सैक्टर-1, नोएडा-201 301, (उ० प्र०)

INLAND WATERWAYS AUTHORITY OF INDIA

(Ministry of Shipping, Govt. of India)

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Engagement of Consultancy Services for preparation of Two Stage DPR of proposed 40 Inland Waterways

Corrigendum - 4

In view of the fact that one more cluster no. 7 consisting of 3 North East Region (NER) rivers has been included in the tender (no. Iwai/PR/40NW/2015) for engagement of Consultancy services for preparation of two stage DPR of proposed 40 Inland waterways, the following may be taken as the modification and part of the tender. All terms and conditions including eligibility criteria, evaluation criteria, payment terms etc of the tender remain the same except the following:-

2. Seven (07) Clusters instead of six (06) clusters

New additional **cluster no. 7** consisting of three (03) North East Region rivers namely Dhansiri/ Chathe, Lohit & Subansiri. The detail of Estimates for Stage-I & II, EMD, Solvency, Turnover etc. are as follows:

Clause 1.2.1.3, page 60 to 64

Cluster-7

Sl. No.	RIVER	LENGTH OF THE RIVER (kms)	STATES	Description of National Waterway	C/S Spacing for detailed survey (m)	Average width of the river (m)
1	DHANSIRI / CHATHE	110	Assam	From Bridge near Morongi T.E. village Lat 26°24'40.65"N, Long 93°53'46.75"E to Numaligarh Lat 26°42'1.20"N, Long 93°35'15.42"E	100	150
2	LOHIT	100	Assam & Arunachal Pradesh	From Parasuram Kund Lat 27°52'40.06"N, Long 96°21'39.70"E to Saikhowa Ghat, Sadiya Lat 27°47'49.14"N, Long 95°38'13.84"E	200	1000
3	SUBANSIRI	111	Assam	From Gerukamukh Lat 27°27'3.14"N, Long 94°15'16.12"E to Brahmaputra confluence at Lat 26°52'24.93"N, Long 93°54'31.26"E	200	1000

(i) Estimated cost Stage-I = Rs 14.45 lakh and Stage II = Rs. 1.62 cr.
(NIT clause 2, page 4 & 5)

(ii) Earnest Money Deposit = Rs. 3.53 lakhs (Clause 4, page 10)

- (iii) Solvency = Rs. 71 lakhs (Clause 3, page 10)
(iv) Turnover = Rs. 1.77 cr. (Clause 9.1.m, page 16)
(v) Three similar works **each** costing not less than Rs. 0.71 Cr; **or, (ii)** Two similar works **each** costing not less than Rs. 1.06 Cr.; **or (iii)** One similar work costing not less than Rs. 1.41 Cr. (Clause 9.1.q, page 17)

3. The consultants are also required to submit the following outputs in Stage-II for all the seven (07) clusters in the enclosed standard templates:-

- i) Traffic Template: at Annex-1
- ii) Project Costing Template: at Annex-2
- iii) Financial Evaluation Template: at Annex-3
- iv) Economic Evaluation Template: at Annex-4
- v) Environmental & Social Screening Template: at Annex-5

4. Bill of Quantity (BOQ) for Cluster-7 is at Annex-6.

5. Accordingly, date of submission/ opening of bids has been extended and revised as:

- (i) Last date of submission of bids is 01.06.2015 up to 1100 hrs. for all seven (07) Clusters
- (ii) Opening of technical bids on 01.06.2015 at 1130 hrs. for all seven (07) Clusters



(Crd. P. K. Srivastava)
Hydrographic Chief

1. TRAFFIC TEMPLATE

Consultants shall supply the following outputs for each waterway investigated.	
Item	Guidance
The Catchment baseline	Describe local economic geography in a reasonably defined potential IWT catchment area including main urban settlements, populations, economic activities, major industries, and accessibility connectivity to road and rail networks, specific relevant developments (e.g. new power houses under active planning). Provide a clear scaled map of such catchment area with named towns/subjects marked relative to waterway.
The Navigation baseline	Describe existing waterway usage including country-boat or commercial use (if any) in general terms, drawing attention to any significant existing IWT flows, market limitations (e.g. seasonal water constraints). Note any permanent IWT infrastructure in place e.g. jetties, barrages. Also major constraints (e.g. unlocked dams/inadequate bridge clearances)
The Market baseline	Disaggregate and investigate potential markets on a commodity basis within the realistic catchment area of the waterway: <ul style="list-style-type: none"> • Bulk and semi-bulk: coal, Ores, Grains, Cement, Sand & gravel: Oil products: Iron & steel: Fertilizers and chemicals; Forestry products: other as relevant • General cargo: • Containers (only on waterways connecting into container ports) Identify origins/destinations as far as possible for the major industries and movements that might realistically be transferable to IWT, especially for bulk traffics. Specify identifiable companies or state enterprises involved in the catchment area.
Forecasting years	Provide total market and IWT share projections for 2020, 2030 and 2040 by commodity
Presentation of forecasts	Present as total freight tons and tons-km by total, and by major waterway section and direction (tabular and chart). Section should be selected to reflect discreet points of major variation in traffic flow (freight sources or sinks) or be related to staging options. Commodity breakdown of these forecasts to be provided.
Market success factors	Discussion of the required fairway availability and reliability required in the specific markets, generic vessel types and capacities, fleet capacity, loading/discharge points, complementary investments into e.g. connecting modes where these are remote from waterway etc.
Forecasting Methodology	Provide clear description allowing replication of forecasts from data and assumptions made, justify assumptions. Qualify data gaps. Traffic projections should be consistent with the specific IWT upgrading scheme (s) investigated or proposed, taking account of operating costs of barges of size proposed vis a vis alternative mode.
Alternative forecasts	Provide where relevant if there are alternative project options or staging options

2. PROJECT COSTING TEMPLATE

Consultants shall supply the following outputs for each waterway project investigated/evaluated.		
Cost type	Cost categories	Components to be itemized
Capital costs	Waterway Infrastructure	<ul style="list-style-type: none"> • Land, compensation and resettlement • Capital dredging • River training/bank protection • Locks • Barrages • Channel market • Night navigation • Other
	Terminal Infrastructure	<ul style="list-style-type: none"> • Fixed infrastructure: berths, moorings, hard-standing etc. (itemized) • Loading/uploading and other equipment (itemized) • Buildings • Other
Operation and maintenance (O & M) costs	Waterways	<ul style="list-style-type: none"> • Maintenance dredging • Markings and nav.-aids • Bank maintenance • Other
	Terminals	<ul style="list-style-type: none"> • Terminal operations • Terminal maintenance • Other
	Vessel: (NB vessel operating costs/tons-km fall sharply with larger capacity vessel, when there is sufficient traffic to utilize them)	<ul style="list-style-type: none"> • Crew • Fuel • Maintenance • Registration & insurance • Fees and charges • Vessel capital amortization (or leasing cost equivalent) • Total costs • (Cost/tons-km for use in evaluation)
Recurrent costs	Periodic major capital costs that may occur over life of assets	
Price levels	All costs to be expressed in mid-2014 price levels. Costs derived from other years to be indexed to 2014 price levels	
Value engineering	Not all investments will be necessary in all projects. Value engineering should be applied to project scoping and specification to avoid 'gold-plating' of costs and undermining viability of project.	
Cost verification	Costs that are estimated on a 'bottom-up' basis should be verified or tested for reasonableness against actual costs for such activities evidenced in the market place	

3. FINANCIAL EVALUATION TEMPLATE

Consultants shall adhere to the following standard approaches in estimating financial internal rate of return (FIRR) and payback period.	
Item	Requirements
Objective	To assess financial internal rates of return and financial payback periods on a consistent basis between different river projects.
Financial evaluation approach	Financial evaluation of each river upgrading project should estimate and present actual cash flows (cost and revenues) at market prices within the inland waterway sector consisting of the three sub-sectors: (a) navigation infrastructure; (b) terminal operations; (C) barging operators.
Disaggregation	Cash flow streams and FIRR's to be provided for the inland waterway sector as a whole and also functionally disaggregated by the three sub-sectors. (The separation should be made even if in practice IWAI or another stakeholder might be involved in multiple sub-sectors). Pay –back should be estimated on a total sector basis.
Transfers between Sub-sectors	Cash flows between the three sectors (such as navigation charges, or terminal charges) should be shown as a negative cash flow to the paying sub-sector and a positive cash flow to receiving sub-sector so that the net cash flows to each sub-sector are best estimates of actual out-turn.
Incremental barging operations	Where the waterway is an extension of a bigger network, with through working of barges, it is the incremental costs and incremental revenue to barge operators of using the project waterway that should be included.
Cash flows in real terms	All financial variables and projections to be made in constant mid-2014 price levels (i.e. net of inflation)
Evaluation period	Initial construction period, plus 25 years of operation
FIRR and payback period	Estimate both FIRR (sector and sub-sectors) and overall sector payback period, the latter being the year in which the cumulative sector each flows becomes positive.
Ramp-up period	Unless good reasons otherwise, assume 4 years ramp-up period from first operational year to long-term 'trend' levels of traffic
Commentary on FIRR	Explain overall sector FIRR results and distribution between sub-sectors. Identify main drivers of the results and sensitivity to assumptions
Risks to financial out-turn	Identify main risks to the estimated project out-turn or viability and their underlying causes e.g. market risks (traffic, tariffs, and competition), hydrology risks, engineering risks, operational risks etc.
Checking and Replicability	Apply systematic check of spreadsheets and logic trail from assumptions to outputs. Include in report and annexes such data, assumptions and spreadsheet calculations as are necessary for a reader to comprehend and if necessary replicate the results presented.

4. ECONOMIC EVALUATION TEMPLATE

Consultants shall adhere to the following standard approaches in estimating economic internal rate of return (EIRR)	
Item	Requirements
Objective	To assess economic internal rates of return (EIRR) on a consistent basis between different river projects.
Economic evaluation approach	Economic evaluation of each river upgrading project may include: <ul style="list-style-type: none"> • Capital and O & M costs of (a) navigation infrastructure and (b) terminals • Savings in transport resource costs between IWT and rail and/or road transport • Reduced barge operating costs (where the project facilitates more efficient sizes or operations of an existing barging operation) • Savings in road/rail accident costs • Saving in carbon emissions
Standard values	To ensure consistency between evaluations of different waterways the following should be used: <ul style="list-style-type: none"> • Road haulage costs: INR 2/tons-km • Rail haulage costs: INR 1/tons-km • IWT haulage costs: to be estimated by the studies depending on optimal barge size and configuration assumed for the specific waterway project • Road accident cost savings: INR 0.2/net tons -km/transferred to IWT • Rail accident costs savings INR 0.1/net tons-km/transferred to IWT • Carbon savings INR 0.1/tons-km transferred from road (till for transfer from rail)
Other benefits	Other significant regional economic benefits such as stimulation of specific production may be described, and value of increased production included in EIRR if it can be properly substantiated.
Cash flows in real terms	All economic variables to be estimated in constant mid-2014 price levels (i.e. net of inflation)
Resource cost adjustments	Market prices may be taken as equivalent to resource costs for the purposes of the economic evaluation except for nominated items (to be confirmed)
Evaluation period	Initial construction period plus 25 years of operation with ramp-up consistent with financial evaluation.
EIRR	Estimate Overall EIRR. Give commentary explaining results, main costs and benefits, main drivers of the results and sensitivity to assumptions.
Checking and Replicability	Apply systematic checks of spreadsheets and logic trail from assumptions to outputs. Include in report and annexes such data, assumptions and spreadsheet calculations as are necessary for a reader to comprehend and if necessary replicate the results presented.

ENVIRONMENTAL & SOCIAL SCREENING TEMPLATE

Consultants shall provide the following information for each waterway project investigated / evaluated.

Screening Question	Yes	No	Details / Remarks
1. Is the project located in whole or part in / near any of the following Environmentally Sensitive Area? If yes, please provide the name and distance from the project site.			
a) National Park			
b) Wildlife/ Bird Sanctuary			
c) Tiger or Elephant Reserve			
d) Biosphere Reserve			
e) Reserved / Protected Forest			
f) Wetland			
g) Important Bird Areas			
h) Mangroves Areas			
i) Estuary with Mangroves			
j) Areas used by protected, important or sensitive species of fauna for breeding, nesting, foraging, resting, over wintering, migration			
k) World Heritage Sites			
l) Archeological monuments/ sites (under ASI's Central / State list)			
2. Is the project located in whole or part in / near any Critically Polluted Areas identified by CPCB?			
3. Is, there any defense installations near the project site?			
4. Whether there is any Government Order/ Policy relevant / relating to the site?			
5. Is the project involved clearance of existing land, vegetation and buildings?			
6. Is the project involved dredging?			
7. Is the project area susceptible to natural hazard (<i>earthquakes, subsidence, erosion, flooding, cyclone or extreme or adverse climatic conditions</i>)			
8. Is the project located in whole or part within the Coastal Regulation Zone?			

Screening Question	Yes	No	Details / Remarks
9. Is the project involved any demolition of existing structure?			
10. Is the project activity require acquisition of private land?			
11. Is the proposed project activity result in loss of direct livelihood / employment?			
12. Is the proposed project activity affect schedule tribe/ caste communities?			

S. N.	Result of Screening Exercise	(Yes / No)
1.	Environment Impact Assessment is Required	
2.	CRZ Clearance is Required	
3.	Environmental Clearance is Required	
4.	Forest Clearance is required	
5.	Wildlife Clearance is required	
6.	NOC from SPCB is required	
7.	Social Impact Assessment is Required	
8.	Abbreviated RAP is required	
9.	Full RAP is required	
10.	Any other clearance is required	

Validate

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Help

Item Rate BoQ

Tender Inviting Authority: Inland Waterways Authority of India

Name of Work: CONSULTANCY SERVICES FOR CLUSTER-7

Contract No: IWAI/PR/40NW/2015/7

Bidder Name :								
PRICE SCHEDULE								
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)								
NUMBER	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder Rs. P	Service Tax	TOTAL AMOUNT Without Taxes	TOTAL AMOUNT With Taxes	TOTAL AMOUNT In Words
1	2	4	5	13	15	53	54	55
1	Consultancy Services for							
1.01	Stage-I (as per TOR of tender) in river Dhansiri / Chathe	110.0000	km			0.00	0.00	INR Zero Only
1.02	Stage-I (as per TOR of tender) in river Lohit	100.0000	km			0.00	0.00	INR Zero Only
1.03	Stage-I (as per TOR of tender) in river Subansiri	111.0000	km			0.00	0.00	INR Zero Only
1.04	Stage-II (as per TOR of tender) in river Dhansiri / Chathe	110.0000	km			0.00	0.00	INR Zero Only
1.05	Stage-II (as per TOR of tender) in river Lohit	100.0000	km			0.00	0.00	INR Zero Only
1.06	Stage-II (as per TOR of tender) in river Subansiri	111.0000	km			0.00	0.00	INR Zero Only
Total in Figures						0.00	0.00	INR Zero Only
Quoted Rate in Words		INR Zero Only						