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गणितीय प्रतिमान केन्द्र
बाढ़ प्रबंधन सुधार सहायक केन्द्र,
जल संसाधन विभाग, अनिसाबाद पटना

पत्रांक-बा०प्र०सु०संके०-(MMC)-29/2021-(अंश-1)-1134 पटना/दिनांक:-21 / 09 / 2026

प्रेषक,

ई० अजय कुमार

निदेशक

सेवा में,

संयुक्त निदेशक,

बाढ़ प्रबंधन सुधार सहायक केन्द्र,

जल संसाधन विभाग, पटना ।

विषय:-Next Phase of NHP (W-AMRITAM) अन्तर्गत कराये जाने वाले कार्यों हेतु प्रस्ताव उपलब्ध कराने के संबंध में ।

प्रसंग:- पत्रांक-बा०प्र०सु०संके०-17/2024-1037, पटना, दिनांक-02/09/2026 एवं Management Support Consultant to MMC का पत्रांक-MS-MMC/74038/2026/42, दिनांक-18/09/2026 ।

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के आलोक में सूचित करना है कि गणितीय प्रतिमान केन्द्र अन्तर्गत बाढ़ पूर्वानुमान हेतु विकसित Regional Network Flood Forecasting Model (RNFFM) जिसमें उत्तर व दक्षिण बिहार की प्रमुख नदियाँ समाहित हैं, का वर्तमान उपयोग केवल उत्तर बिहार की प्रमुख नदियों का जल स्तर एवं जलश्राव के रूप में पूर्वानुमान हेतु किया जा रहा है ।

यद्यपि उक्त मॉडल के डाटाबेस में दक्षिण बिहार की नदियों हेतु सैटेलाइट जनित Cross-Section का उपयोग किया गया है, परन्तु बाढ़ पूर्वानुमान के लिए इस मॉडल को उपयोग में लाने हेतु नदियों के वास्तविक Cross-Section आँकड़ों की आवश्यकता है, ताकि मॉडल को Callibrate/Validate किया जा सके । इस संदर्भ में उल्लेखनीय है कि BWSIMP परियोजना के अन्तर्गत गणितीय प्रतिमान केन्द्र में Management Support Consultant to MMC नियुक्त किये गये हैं, जिनकी कार्यावधि दो वर्ष की है (कार्य प्रारंभ की तिथि-18/05/2026), अतः उक्त Cross-Section Survey यथा-समय किया जाना आवश्यक है, ताकि पूर्वानुमान संबंधित मॉडलिंग कार्य परामर्शी द्वारा उक्त कार्यावधि के दौरान ही किया जा सके । पुनः ज्ञातव्य है कि उक्त परामर्शी के कार्य-प्रगती की समीक्षा हेतु अभियंता प्रमुख, मुख्यालय-सह-SRC अध्यक्ष की अध्यक्षता में आहूत बैठक, दिनांक-09/09/2026 में भी यह निदेश प्राप्त हुआ है कि “दक्षिण बिहार की अभिष्ट नदियों का सर्वेक्षण कार्य उक्त परामर्शी कार्य की समाप्ति अवधि के पूर्व ही कराये जाने हेतु सर्वेक्षण कार्य के लिए अधिदेशित, समग्र योजना, अन्वेषण एवं प्रोजेक्ट प्रीपेरेशन, जल संसाधन विभाग, पटना को

बाढ़ प्रबंधन सुधार सहायक केन्द्र

जल संसाधन विभाग, पटना

डायरी सं० 4470 दिनांक 22/9/26

प्रस्ताव उपलब्ध कराया जाए” । इस संबंध में मुख्य अभियंता, समग्र योजना, अन्वेषण एवं प्रोजेक्ट प्रीपैरेशन, जल संसाधन विभाग, पटना से अनुरोध किया जा चुका है ।

उक्त के आलोक में प्रासंगिक पत्र में उल्लेखित Next Phase of NHP (W-AMRITAM) अन्तर्गत कराये जाने वाले कार्यों के प्रस्ताव में उत्तर बिहार की नदियाँ जिनके अद्यतन सर्वेक्षण आँकड़ों की आवश्यकता है, को उक्त प्रस्ताव में सम्मिलित किया जा सकता है (सूचि संलग्न)। साथ ही गणितीय प्रतिमान केन्द्र में उपयोग में लाए जा रहे मॉडलिंग सॉफ्टवेयर की वर्तमान आवश्यकताओं को देखते हुए संबंधित प्रस्ताव भी पत्र के साथ संलग्न कर अग्रेतर कार्रवाई हेतु उपलब्ध कराया जा रहा है ।

सुलभ प्रसंग हेतु गणितीय प्रतिमान केन्द्र में कार्यरत परामर्शी द्वारा समर्पित Technical Specification for River Cross-Section Survey तथा Software Requirement एवं नदियों के सर्वेक्षण कराये जाने हेतु विभागीय आदेश इस पत्र के साथ संलग्न किया जा रहा है ।

अनु०-यथोक्त ।

विश्वासभाजन

Ajay Kumar
21/9/26
(अजय कुमार)

निदेशक

Modelling Software License Requirement under Next Phase of NHP (W-AMRITAM)				
Sl. No.	Product Description	Existing Qty	Additional Requirement	Cost of Additional License
1.	Mike+ Software Package • MIKE+ Model Manager • MIKE+1D River • MIKE+2D Overland • MIKE+2D Perpetual GPU Access • MIKE+ Rainfall Runoff • MIKE+ Control • MIKE+DA	1	1	92,14,166.66
2.	MIKE 21C	1	1	50,64,166.66
3.	MIKE HYDRO BASIN	1	1	20,00,000.00
Total				₹ 1,62,78,333.32

AMC requirement for existing licenses under Next Phase of NHP (W-AMRITAM)			
Sl. No.	Product Description	Quantity of Existing licenses	Total Cost of AMC for one year
1	AMC for MIKE +	1	23,03,166.66
2	AMC for MIKE 21C	1	12,66,166.66
3	AMC for MIKE HYDRO BASIN	1	5,00,000.00
Total			₹ 40,69,333.32

*Costs are exclusive of taxes.

2

River Cross-Section Data Requirement under Next Phase of NHP (W-AMRITAM)				
Sl. No.	River Name	Existing Surveyed X-section (Year of Survey)	Required New surveyed X-section	Remarks
1	Bagmati	2023	-	-
2	Gandak	2021	Gandak	X-section of full River
3	Kamla-Balan	2017	Kamla-Balan	X-section of full River
4	Kosi and Tributaries	2021,2018	Kosi and Tributaries	X-section of full River
5	Mahananda and Tributaries	2021	Mahananda and Tributaries	X-section of full River

Note- For Survey requirements and technical specifications, please refer to Annexure enclosed.

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Director MMC <mmcwrd@gmail.com>

IIKE Software Quotation:FMISC

message

James Ebenezer Samuel <jaes@dhigroup.com>
To: "mmcwrd@gmail.com" <mmcwrd@gmail.com>

Fri, Sep 18, 2026 at 12:11 A

Hi Sir

Greetings from DHI

Please find the budgetary quotation attached for your kind perusal for the the purchase of MIKE Software

Best Regards
James.E.Samuel



Software_Requirements_Final_Updated.pdf

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Modelling Software License Requirement

Sl. No.	Product Description	Existing Qty	Additional Requirement	Perpetual License Cost (INR, plus taxes)	AMC – 1 Year (INR, plus taxes)
1.	MIKE+ Software Package • MIKE+ Model Manager • MIKE+1D River • MIKE+2D Overland • MIKE+2D Perpetual • GPU Access • MIKE+ Rainfall Runoff • MIKE+ Control • MIKE+DA Scope: River Flooding with Rainfall Runoff, Dambreak and 1D Sedimentation	1	1	92,14,166.66	23,03,166.66
2.	MIKE 21C	1	1	50,64,166.66	12,66,166.66
3.	MIKE HYDRO BASIN	1	1	20,00,000.00	5,00,000.00
4.	MIKE SHE HD	-	1	22,00,000.00	5,50,000.00
5.	AMC for Software Package above mentioned			—	MIKE+: 23,03,166.66 MIKE SHE: 5,50,000.00 MIKE 21C: 12,66,166.66 MIKE HYDRO BASIN: 5,00,000.00

Note: All amounts are exclusive of applicable taxes. AMC values are shown separately for each quoted software product. MIKE HYDRO BASIN AMC is 25% of the perpetual license cost.

Requirement Cross Sections for Rivers of South Bihar for RNFFM Upgradation for FF-EWS

message

Management Support Consultant to MMC <ms.mmc2026@gmail.com>
To: Director MMC <mmcwrd@gmail.com>
Cc: Rajesh Kumar <rajeshkg@lasaindia.com>, shahadatapel@gmail.com

Fri, Sep 18, 2026 at 12:16 PM

Dear Sir,

Please find the detailed 'Technical Specifications for the River Cross Section Survey' for rivers of South Bihar. These data are essential for the RNFFM upgradation for flood forecasting and early warning system (FF-EWS).

This is for your information, please.

Thanking you for your support and cooperation,

Best Regards,

Dr. T. Thomas | Team Leader

Management Support to the MMC, WRD, Bihar

LEA Associates South Asia Pvt. Ltd., India in JV with Institute of Water Modelling, Bangladesh

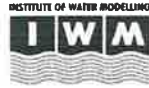
B-1/E-27, Mohan Cooperative Industrial Estate, Mathura Road, New Delhi 110 044, India

Mobile: +91-9755096965; Email: ms.mmc2026@gmail.com

2 attachments

 **Letter - South_Bihar_River_Cross_Section_Technical_Specification.pdf**
284K

 **South_Bihar_River_Cross_Section_Technical_Specification.pdf**
231K



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LEA Associates South Asia Pvt. Ltd., India
In Joint Venture with
Institute of Water Modelling, Bangladesh
B-1, E-27, Mohan Cooperative Industrial Estate
Mathura Road, New Delhi-110044, India
Email: ms.mmc2026@gmail.com

MS-MMC/74038/2026/42

Date: September 18, 2026

To,
The Director,
Mathematical Modelling Centre, FMISC,
2nd Floor, Jal Sansadhan Bhawan,
Anisabad, Patna - 800002
Telephone: +91-612-2256999, Facsimile: +91-612-2256999
E-mail: mmcwrd@gmail.com

Project: Consultancy Services for Management Support to the Mathematical Modelling Centre (MMC)
Under Water Resources Department, Government of Bihar

Subject: Requirement Cross Sections for Rivers of South Bihar for RNFFM Upgradation for FF-EWS

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Yours faithfully,

Dr. T. Thomas | Team Leader
Management Support to the MMC, WRD, Bihar
For LEA Associates South Asia Pvt. Ltd., India
in JV with
Institute of Water Modelling, Bangladesh

Enclosure: As mentioned above



Requirements for Software and Data Procurement under w-AMRITAM

I) SOFTWARE

1. MIKE+: Presently one MIKE+ license is available at MMC, which has one seat (can be run on one system at a time). Additional 3 more seats can be procured for running RNFFM model with multiple rainfall forecasts viz., WRF, GFS, BFS and MME, which will enable the model runs simultaneously at 4 different systems, so that the model forecasts using all four rainfall forecasts, are available timely without delay.
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II) RIVER SURVEY DATA

1. All rivers in South Bihar, where FF-EWS have to be developed in the current assignment – presently JAXA DEM based river data is being used.
2. All major river systems in North Bihar including Gandak, Bagmati, Kosi, Kamla-Balan, Mahananda, Burhi Gandak etc. where the river survey data being used are old from way back in 2021 or before.
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III) HYDRAULIC PARTICULARS OF STRUCTURES

1. Hydraulic particulars of all dams and barrages in the river basins in Bihar and other states for rivers in South and North Bihar.
2. Hydraulic particulars of all major Bridges and Other Hydraulic Structures on River Ganga and other Major Tributaries in North and South Bihar.
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4. Dam releases from spillway, canal releases and upstream utilisations from the Dams and Barrages located in the river basins of South and North Bihar falling in Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Jharkhand, Uttarakhand and other states – Historical (30 years or more) and real-time operation data.

TECHNICAL SPECIFICATION FOR RIVER CROSS-SECTION SURVEY

1D Flood Forecasting Model for South Bihar

1. Purpose and Background

The existing South Bihar river network incorporated in the RNFFM includes major rivers such as the Sone, Punpun, Falgu, Karmnasha, Morhar, Kiul-Harohar, Chandan, Dhadar, Sakri, Badua, and Chir and associated tributaries. In the existing model, several river cross-sections were derived from JAXA DEM data, primarily to represent the river network and maintain the overall hydraulic and mass-balance connectivity with the Ganges River.

However, DEM-derived cross-sections are generally inadequate for representing the in-channel geometry of relatively narrow rivers because satellite-based DEMs do not reliably capture submerged riverbed elevations, channel thalweg, bank geometry, local conveyance characteristics, and hydraulic controls. Consequently, surveyed river cross-sections are required to upgrade the South Bihar river system for reliable 1D hydrodynamic modelling and operational flood forecasting.

The proposed survey shall provide sufficient geometric information to reproduce channel conveyance, flood levels, propagation of flood waves, backwater effects, storage, and hydraulic interaction between tributaries and the main river system.

2. Cross-Section Location and Spacing

Cross-section spacing shall be determined primarily by hydraulic and morphological characteristics rather than by applying a uniform spacing throughout the river.

For relatively straight and hydraulically uniform reaches, a general spacing of approximately 2–3 km may be adopted. The spacing shall be reduced wherever significant changes in channel geometry, river alignment, bed slope, hydraulic controls, or floodplain characteristics occur.

River/Reach Condition	Recommended Cross-Section Requirement
Straight and relatively uniform river reach	Approximately 2–3 km spacing
Significant change in channel width or shape	Additional sections immediately upstream/downstream or within the transition
Significant change in riverbed slope	Additional sections to adequately represent the slope transition
Sharp bends/meandering reaches	Reduced spacing, with sections representing bends and intervening reaches
Confluence	Sections on upstream tributary/tributaries and main river, and a section downstream of the confluence
Bifurcation	Sections upstream of the bifurcation and on each downstream branch
Bridges, barrages, weirs, regulators and similar structures	Sections immediately upstream and downstream, together with structure geometry
Sudden contraction/expansion	Additional sections to represent the hydraulic transition
Islands/chars or multiple-channel reaches	Sufficient sections to represent effective flow conveyance and channel configuration
Major tributary/drain/outfall connection	Additional sections near the connection
Forecasting/observation station	Cross-section at or sufficiently close to the station to establish representative stage–discharge behaviour

Cross-section spacing may therefore be considerably less than 2 km in hydraulically complex reaches.

3. Cross-Section Extent

Each surveyed cross-section shall represent the complete hydraulically active section, including the main channel, banks, relevant floodplain and flood-protection infrastructure.

- Cross-sections shall extend laterally beyond the active channel sufficiently to represent flood conveyance and storage during major flood events.
- Survey coverage shall extend at least to the historical Highest Flood Level (HFL), with adequate terrain coverage above the HFL where feasible.
- The survey shall include the riverbed, thalweg, left and right bank lines, natural levees, berms and significant floodplain breaks.
- In embanked reaches, sections shall extend to the top of the flood-protection embankments and include both riverside and landside toes where hydraulically relevant.
- The lateral extent shall be sufficient to avoid artificial truncation of simulated flood levels at the cross-section boundaries.

4. Orientation of Cross-Sections

Cross-sections shall generally be surveyed perpendicular to the predominant direction of flow rather than simply perpendicular to the mapped river centreline.

In curved or meandering reaches, section alignment shall represent the effective flow path and avoid excessive skewness. Cross-sections shall not intersect each other when incorporated into the 1D model.

The river centreline, cross-section alignment, left/right banks and chainage system shall be spatially consistent.

5. Survey Point Density

Survey points within each cross-section shall be sufficiently dense to accurately reproduce all significant changes in geometry.

- Survey points shall specifically capture the thalweg/deepest channel, changes in bed slope across the section, channel edges, bank toes and tops, berms, natural levees, embankment toes and crests, abrupt breaks in ground elevation, secondary channels, islands/chars, floodplain depressions, and other features affecting hydraulic conveyance.
- Uniformly spaced survey points alone shall not be considered sufficient where significant geometric breaks occur.

6. Hydraulic Structures

All major hydraulic structures influencing river flow shall be surveyed and geo-referenced, including bridges, barrages, weirs, regulators, sluices, culverts and other significant control structures.

For each structure, the survey shall capture, as applicable, deck/road level, bridge opening dimensions, pier locations and widths, soffit/low-chord level, abutments, crest level, gate dimensions and sill levels, number and width of openings, and relevant upstream and downstream bed levels.

Dedicated river cross-sections shall be surveyed sufficiently close to both upstream and downstream sides of major structures so that local contraction, expansion and head losses can be represented appropriately.

7. Confluences and Bifurcations

Special attention shall be given to river junctions because they strongly influence flood-wave propagation and backwater conditions.

For a confluence, surveyed sections should normally include a section on each incoming river upstream of the junction, a section on the main river immediately upstream of the junction, and a section downstream of the combined flow.

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For bifurcations, sections shall be provided upstream of the division and downstream on each branch. The exact number and location shall depend on local geometry and hydraulic complexity.

8. General Requirement

The recommended 2–3 km spacing shall be considered a general guideline for hydraulically uniform reaches and not a rigid maximum spacing criterion. The final location and density of cross-sections shall be governed by changes in river geometry, morphology, bed slope, hydraulic controls, tributary connections, structures, embankments, hydrometric stations and other features influencing flood-wave propagation.

The overall objective shall be to obtain the minimum number of cross-sections necessary to adequately represent the hydraulic behaviour of the river system without compromising the accuracy and stability required for operational 1D flood forecasting.



Director MMC <mmcwrd@gmail.com>

Requirements for Software and Data Procurement under w-AMRITAM

1 message

Management Support Consultant to MMC <ms.mmc2026@gmail.com>

Tue, Sep 8, 2026 at 12:48 PM

To: Director MMC <mmcwrd@gmail.com>

Cc: Rajesh Kumar <rajeshkg@lasaindia.com>, shahadatapel@gmail.com

Dear Sir,

Please find the list pertaining to the '**Requirements for Software and Data Procurement under w-AMRITAM**'. These data will further help in better model setup, calibration and validation, whereas the additional seats for the MIKE+ software will help to run the flood forecasting model on multiple systems for use in ensemble forecasting approach. The MIKE-SHE model, which is a complete model, can be used for groundwater modelling, surface water-groundwater interaction and water resources management. The additional MIKE 21C can be used for morphological modelling looking into the many need based modelling studies that are being referred to MMC.

This is for your information, please.

Thanking you for your support and cooperation,

Best Regards,

Dr. T. Thomas | Team Leader**Management Support to the MMC, WRD, Bihar****LEA Associates South Asia Pvt. Ltd., India in JV with Institute of Water Modelling, Bangladesh**

B-1/E-27, Mohan Cooperative Industrial Estate, Mathura Road, New Delhi 110 044, India

Mobile: +91-9755096965; Email: ms.mmc2026@gmail.com**Requirements for software and data procurement under w-AMRITAM.pdf**

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LEA Associates South Asia Pvt. Ltd., India

In Joint Venture with

Institute of Water Modelling, Bangladesh

B-1, E-27, Mohan Cooperative Industrial Estate

Mathura Road, New Delhi-110044, India

Email: ms.mmc2026@gmail.com

MS-MMC/74038/2026/29

Date: September 08, 2026

To,

The Director,

Mathematical Modelling Centre, FMISC,

2nd Floor, Jal Sansadhan Bhawan,

Anisabad, Patna - 800002

Telephone: +91-612-2256999, Facsimile: +91-612-2256999

E-mail: mmcwrd@gmail.com

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संयुक्त निदेशक का कार्यालय
बाढ़ प्रबंधन सुधार सहायक केन्द्र,
जल संसाधन विभाग, अनिसाबाद पटना ।

पत्रांक-बा०प्र०सु०संके०-(MMC)- 29/2021-1017 पटना/दिनांक-09/09/2024
प्रेषक,

ई० अमिता सिंह,
संयुक्त निदेशक

सेवा में,

अभियंता प्रमुख,
बाढ़ नियंत्रण एवं जल निस्सरण,
जल संसाधन विभाग, पटना ।

विषय:-Topographical Survey of River Kosi in a length of 52km upstream
(Nepal Portion) and 125km downstream (India Portion) of Kosi
Barrage after flood 2023 to 2027 के संबंध में ।

प्रसंग:-भवदीय का पत्रांक-बाढ़ (प्रो०)सि०-45/2013-2489, दिनांक-02/09/2024 ।

महोदय,

उपर्युक्त विषयक प्रासंगिक पत्र के आलोक में गणितीय प्रतिमान केन्द्र में
नियुक्त परामर्शियों से तथ्यात्मक प्रतिवेदन की रींग की गई । इस क्रम में
परामर्शियों द्वारा उपलब्ध कराया गया प्रतिवेदन भवदीय सूचनार्थ एवं अग्रेतर
कार्रवाई हेतु समर्पित ।

अनु०- यथोक्त ।

विश्वासभाजन


(अमिता सिंह)

संयुक्त निदेशक

Sl. No.	Comments	Compliances
1	Please specify the duration (in years) at which the Kosi River cross-sections should be updated for RNFFM model.	Duration of Cross-section Survey The duration of survey of cross-sections of the Kosi River and update the RNFFM depends upon the Morphological behaviour of the Kosi River specially the rate of change of bed level and conveyance. If the bed level/conveyance change with years becomes insignificant then survey of cross-section in 5 years interval is good enough for maintenance of RNFFM. However, it is suggested to be explored the morphological behavior (rate of change of bed level/conveyance with years) of the Kosi River before finalization of the duration of cross-section survey. If the rate change of bed level found to be limited within 30cm/5 years, then cross-section survey once in every 5 years is suggested. Appropriate distance It is recommended to survey cross-sections of the Kosi River at 2 km interval to maintain RNFFM. In addition, survey of cross-sections at the Gauge and Discharge stations, 500 meter upstream and 500 meter downstream of each structure (barrage, regulator, bridge, etc.) is recommended (Figure 1). At confluences/bifurcation, cross-sections are recommended to be measured on each route (Figure 2 and Figure 3).
2	It is noteworthy that the river cross-section survey of the Kosi River was conducted annually from 2018 to 2022, and these surveys were likely used in the Kosi River Model/RNFFM. Please inform in	Regional network model is started with cross-section of 2017 for Kosi River. In the latest updated RNFFM, the following cross-sections of Kosi River are incorporated: Kosi River in Nepal (Barashelra to Birpur Barrage): 2021 Kosi River in India (Birpur Barrage to Dhamaraghat): 2021

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211

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which specific years the Kosi River cross-sections were updated during this period. Also, clarify which year's surveyed cross-sections are currently being used in the active model for the Kosi River/RNFFM model.

Additional suggestions

Kosi River in India (Dhamaraghat to Baitara): 2018, (ACOM Survey)
Kosi River in India (Baitara to Kursela): 2017, (ACOM Survey)

Measurement of water level in the location during cross-section survey is essential.

- The extent of cross-section will be from countryside toe of left embankment to countryside toe of right embankment.
- Surveyor will record water levels at gauge stations with respect to the reference level of cross-section survey.
- Horizontal spacing of points should be as much as closer enough to represent the undulation of surface/bathymetry in the section. Vertical. Vertical resolution should not exceed 0.30 meter.

Cross-section should be perpendicular to the river flow direction

Note:

The recommendations of interval of cross-section survey of Kosi River stated above are only for maintenance of RNFFM. The duration of cross-section survey of Kosi River is suggested to be finalized after assessment of Morphological behavior (rate of change of bed level and conveyance)

Page 1

12/10

1106

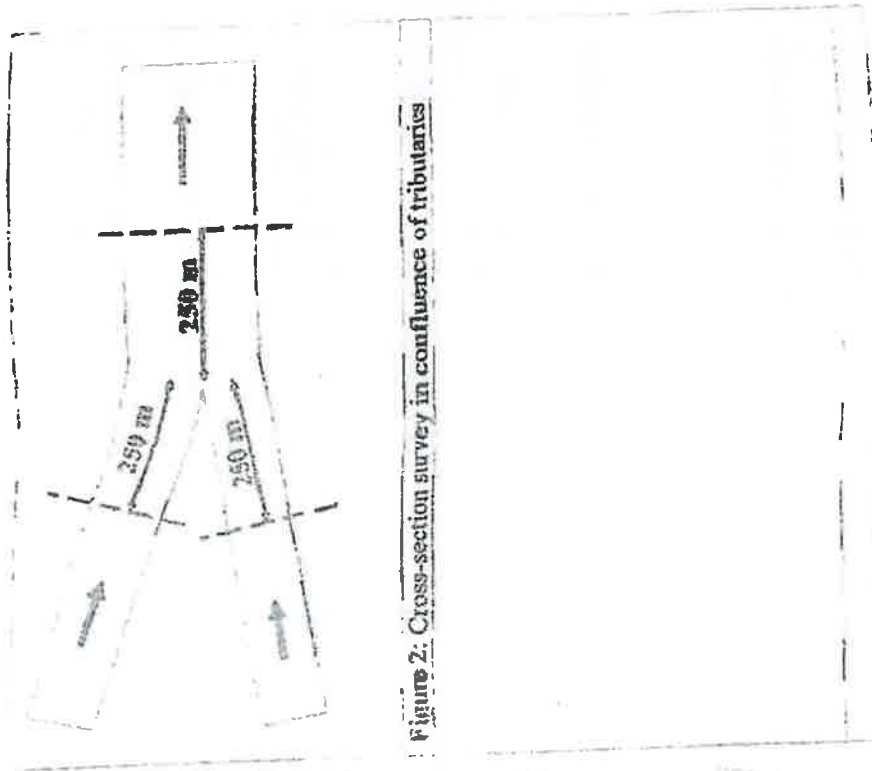


Figure 2: Cross-section survey in confluence of tributaries

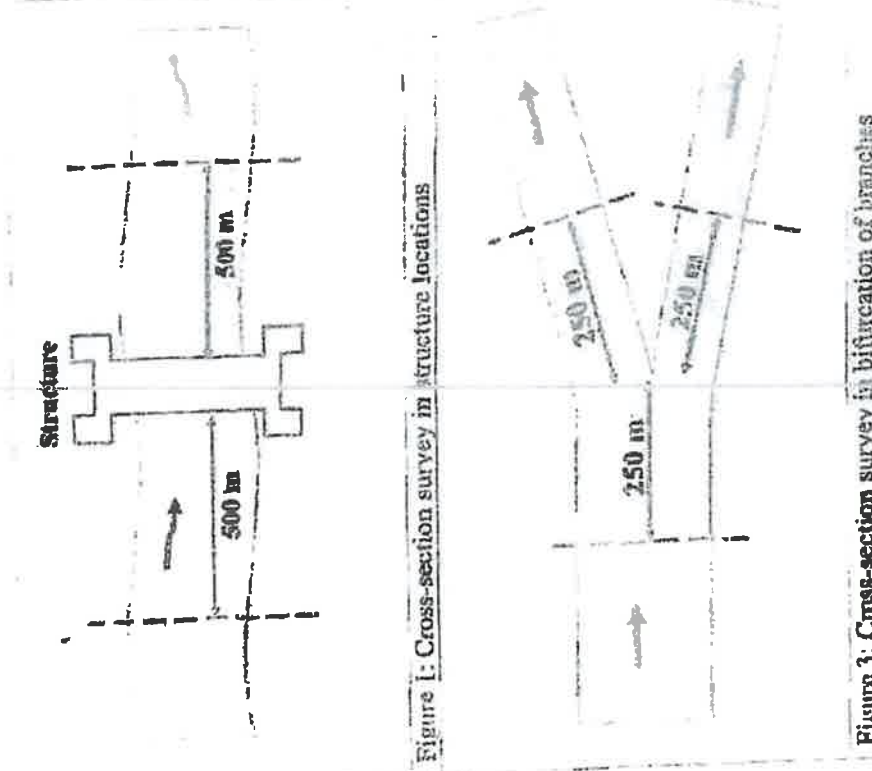


Figure 3: Cross-section survey in bifurcation of branches

15/11/20

बाढ़ प्रबंधन सुधार सहायक केन्द्र,
जल संसाधन विभाग, अनिसाबाद पटना

पत्रांक-बा०प्र०सु०संके०-(MMC)-40/2026-1133 पटना/दिनांक:-21/09/2026

प्रेषक,

ई० अजय कुमार

निदेशक

सेवा में,

मुख्य अभियंता,

समग्र योजना अन्वेषण एवं प्रोजेक्ट प्रिपरेशन,

जल संसाधन विभाग, पटना ।

विषय:-BWSIMP योजना अन्तर्गत गणितीय प्रतिमान केन्द्र में कार्यरत Management Support to the Mathematical Modelling Centre के कार्यों के लिए दक्षिण बिहार की नदियों एवं उत्तर बिहार की बूढ़ी गंडक नदी के सर्वेक्षण के संबंध में ।

प्रसंग:- Management Support Consultant to MMC का पत्रांक-MS
MMC/74038/2026/42, दिनांक-18/09/2026 ।

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के आलोक में सूचित करना है कि गणितीय प्रतिमान केन्द्र अन्तर्गत बाढ़ पूर्वानुमान हेतु विकसित Regional Network Flood Forecasting Model (RNFFM) जिसमें उत्तर व दक्षिण बिहार की प्रमुख नदियाँ समाहित हैं, का वर्तमान उपयोग केवल उत्तर बिहार की प्रमुख नदियों का जल स्तर एवं जलश्राव के पूर्वानुमान हेतु किया जा रहा है, जिसमें उत्तर बिहार की एक अन्य नदी बूढ़ी गंडक को सम्मिलित किये जाने की योजना है ।

यद्यपि उक्त मॉडल के डाटाबेस में दक्षिण बिहार की नदियों एवं उत्तर बिहार की बूढ़ी गंडक नदी हेतु सैटेलाइट जनित Cross-Section का उपयोग किया गया है, परन्तु बाढ़ पूर्वानुमान के लिए इस मॉडल को उपयोग में लाने हेतु नदियों के वास्तविक Cross-Section आँकड़ों की आवश्यकता है, ताकि मॉडल को Calibrate/Validate किया जा सके । इस संदर्भ में उल्लेखनीय है कि BWSIMP परियोजना के अन्तर्गत गणितीय प्रतिमान केन्द्र में परामर्शी, Management Support to MMC नियुक्त किये गये हैं, जिनकी कार्यावधि दो वर्ष की है (कार्य प्रारंभ की तिथि-18/05/2026), अतः उक्त Cross-Section Survey के आँकड़े परामर्शी को शीघ्र उपलब्ध कराया जाना आवश्यक है, ताकि पूर्वानुमान संबंधित मॉडलिंग कार्य परामर्शी द्वारा ससमय किया जा सके ।

पुनः ज्ञातव्य है कि उक्त परामर्शी के कार्य-प्रगति की समीक्षा हेतु अभियंता प्रमुख, मुख्यालय-सह-SRC अध्यक्ष की अध्यक्षता में आहूत बैठक, दिनांक-09/09/2026 में भी यह निदेश प्राप्त हुआ है कि “दक्षिण बिहार की अभिष्ट नदियों का सर्वेक्षण कार्य शीघ्र

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पूर्ण किये जाने हेतु सर्वेक्षण कार्य के लिए आधदाशत, समग्र योजना, जल संसाधन विभाग, पटना को प्रस्ताव उपलब्ध कराया जाए” ।

उक्त के आलोक में परामर्शी से प्राप्त Technical Specification for River Cross-Section Survey संबंधित प्रतिवेदन पत्र के साथ संलग्न कर उपलब्ध कराया जा रहा है । अतः भवदीय से अनुरोध है कि दक्षिण बिहार की नदियों एवं उत्तर बिहार की बूढ़ी गंडक नदी के सर्वेक्षण कराये जाने हेतु संबंधित को निदेशित करने की कृपा करना चाहेंगे ।

अनु०-यथोक्त ।

विश्वासभाजन

Ajay Kumar
21/9/26
(अजय कुमार)

निदेशक