

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH AT NEW DELHI**

ORIGINAL APPLICATION NO. 511 OF 2023

IN THE MATTER OF

Priyank Bharati

APPLICANT IN PERSON

Versus

**State of Uttar Pradesh through its Chief Secretary and others
RESPONDENTS**

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Priyank Bharati

Applicant in Person

Date : 21/11/24

Place : Meerut

प्रेषक

जिलाधिकारी
मेरठ।

सेवा में,

निदेशक,
रिमोट सेन्सिंग एप्लीकेशन सेन्टर
सैक्टर-जी, जानकीपुरम्,
कुरी रोड, लखनऊ- 226021

संख्या: 4311 /ओ0एस0डी0-कैम्प/2024

दिनांक: 26-09-2024

महोदय,

कृपया इस कार्यालय के पत्र संख्या 3980/ओ0एस0डी0-कैम्प/2024 दिनांक 6-5-2024 का सन्दर्भ लेने का कष्ट करें, जिसके द्वारा श्री प्रियांक भारती, संस्थापक/चेयरमैन, नेचुरल साईंस ट्रस्ट, 148/4, जागृति विहार, मेरठ- 250004, द्वारा आपको सम्बोधित कर प्रेषित पत्र दिनांक 6-5-2024 मूल रूप में संलग्न कर नियमानुसार आगामी कार्यवाही हेतु महोदय की सेवा में प्रेषित किया गया था।

इस सम्बन्ध में श्री प्रियांक भारती, संस्थापक/चेयरमैन, नेचुरल साईंस ट्रस्ट, 148/4, जागृति विहार, मेरठ- 250004 द्वारा पुनः दिनांक 25-9-2024 को उक्त सन्दर्भित पत्र दिनांक 6-5-2024 की प्रति प्रस्तुत की गयी है, जिसे मूल रूप में संलग्न कर नियमानुसार अग्रेत्तर कार्यवाही हेतु प्रेषित किया जा रहा है।

संलग्न-उपरोक्तानुसार।

भवदीय,

26/9/2024
(दीपक गीणा)

जिलाधिकारी, मेरठ।

प्रतिलिपि-

- 1- श्री प्रियांक भारती, संस्थापक/चेयरमैन, नेचुरल साईंस ट्रस्ट, 148/4, जागृति विहार, मेरठ को उनके उक्त सन्दर्भित पत्र के क्रम में सूचनार्थ प्रेषित।

(दीपक गीणा)

जिलाधिकारी, मेरठ।

Shawali

To,

The Director,
Remote Sensing Applications Centre,
Sector - G, Jankipuram, Kursi Road,
Lucknow-226021

Through District Magistrate Meerut

Subject: In reference to letter no 3980/OSD-Camp/2024 dated 06.05.2024

Respected Sir,

I would like to bring to your kind attention our ongoing efforts concerning the identification of the paleochannels of the Budhi Ganga river in Tehsil Mawana, District Meerut. We had earlier sent a formal communication on this matter, as per the letter dated 06 May 2024, requesting your esteemed office to initiate the process of identifying these paleochannels.

The significance of Budhi Ganga to the region's ecology, cultural heritage, and water management is immense. The identification of its ancient river courses is critical not only for the historical and environmental conservation of the region but also for the development of an effective river basin management plan. Understanding the paleochannels is essential for ensuring the sustainable management of the river and surrounding wetlands, preventing flood risks, and restoring the natural flow patterns that have been altered over time.

Given the pressing need for these studies, we have been eagerly awaiting communication from your office regarding the status and progress of this request. However, as of now, we have not received any updates or confirmation of any ongoing work in this regard.

We kindly request your intervention and support in expediting the process of identifying the paleochannels of Budhi Ganga in Tehsil Mawana, District Meerut. This effort will provide invaluable insights into the hydrological and geological history of the region, thereby aiding in the restoration and preservation of this vital water system.

We look forward to your positive response and the necessary actions from your office at the earliest. Should you require any additional information or coordination at the local level, please do not hesitate to reach out.

Thank you for your attention to this important matter.

Thanks and Regards.

Encl. : As above

Shawali
24.09.24
Er. Priyank Bharati,
Assistant Professor,
Department of Biotechnology,
School of Biological Engineering and Life Sciences
Shobhit Institute of Engineering & Technology
(NAAC 'A' Grade Accredited Deemed-to-be University)
NII 58, Modipuram, Meerut, Uttar Pradesh 250110 (U.P.) INDIA
Mobile-09411823914

Shawali

प्रपत्र,

जिलाधिकारी
मेरठ।

सेवा में,

निदेशक,
रिमोट सेन्सिंग एप्लीकेशन सेन्टर
सॉफ्टवेयर-जी, जानकीपुरम्,
कुर्रौ रोड, लखनऊ- 226021
/ओएसओडीओ-कैम्प/2024

संख्या 3980

दिनांक: 06-05-2024

महोदय,

कृपया श्री प्रियांक भारती, संस्थापक/ चेयरमैन, नेचुरल साइंस ट्रस्ट, 148/4, जागृति विहार, मेरठ- 250004, द्वारा आपको सम्बोधित कर प्रेषित पत्र दिनांक 6-5-2024 का सन्दर्भ लेने का काम करें, जो दूढ़ी गंगा नदी की धारा के पहचान के सम्बन्ध में है।

श्री प्रियांक भारती, संस्थापक/ चेयरमैन, नेचुरल साइंस ट्रस्ट, 148/4, जागृति विहार, मेरठ का उक्त सन्दर्भित पत्र मूल रूप में संलग्न कर नियमानुसार आगामी कार्यवाही हेतु महोदय की सेवा में प्रेषित किया जा रहा है।
संलग्न-उपरोक्तानुसार।

भवदीय,

(दीपक भीष्ण)
जिलाधिकारी, मेरठ।

प्रतिलिपि-

- 1- श्री प्रियांक भारती, संस्थापक/चेयरमैन, नेचुरल साइंस ट्रस्ट, 148/4, जागृति विहार, मेरठ को उनके उक्त सन्दर्भित पत्र दिनांक 6-5-2024 के काम में सूचनाार्थ प्रेषित।

6/5/24
(दीपक भीष्ण)
जिलाधिकारी, मेरठ।

Shawali

रिमोट सेन्सिंग एप्लीकेशन्स सेन्टर
उत्तर प्रदेश

सं०:आर०एस०ए०सी०:एस०जी०डी०:2024: 3321

दिनांक : 08.11.2024

प्रेषक,

निदेशक,
आर०एस०ए०सी०-यू०पी०,
लखनऊ।

सेवा में,

जिलाधिकारी, मेरठ,
मेरठ।

विषय : केन्द्र द्वारा तैयार किये गये परियोजना प्रस्ताव के क्रम में वांछित धनराशि अवमुक्त किये जाने के संबंध में।

महोदय,

आपके पत्र संख्या पत्र संख्या 3980/ओ०एस०डी०-कैप/2024 दिनांक 26.09.2024 तथा तदक्रम में प्रेषित ई-मेल के माध्यम से किये गये अनुरोध के क्रम में मेरठ जनपद की मबाना तहसील में बूढ़ी गंगा नदी के पैलियो चैनल के अध्ययन हेतु रिमोट सेन्सिंग तकनीक के माध्यम से कार्य हेतु एक परियोजना प्रस्ताव तैयार कर इस पत्र के साथ प्रेषित किया जा रहा है।

प्रस्ताव में उल्लिखित शर्तों की सहमति की दशा में वांछित धनराशि ₹0 सात लाख छियानबे हजार पाँच सौ इकतीस (₹0 7,96,531/-) मात्र को निदेशक, आर०एस०ए०सी०-यू०पी० के पक्ष में निम्नानुसार प्रेषित करने का कष्ट करें, ताकि संबंधित टीम को सर्वेक्षण एवं अग्रतर कार्य हेतु निर्देशित किया जा सके।

खाताधारक का नाम : निदेशक, आर०एस०ए०सी०-यू०पी०
बैंक का नाम : इण्डियन ओवरसीज बैंक
खाता संख्या : 179201000002002
आई०एफ०एस०सी० : IOBA0001792
शाखा : कुर्सी रोड लखनऊ

भवदीय,

संलग्नक : उपरोक्तानुसार।

Signed by

Shildhar Singh Yadav

Date: 08-11-2024 16:24:33

निदेशक, आर.एस.ए.सी., यू.पी.

Shawali

Priyank Bharati <priyank.bharati@shobhituniversity.ac.in>

Fwd: PROJECT PROPOSAL FOR RELEASING MONEY

2 messages

sudhakar <shuklasudhakar1@gmail.com>

To: "priyank.bharati@shobhituniversity.ac.in" <priyank.bharati@shobhituniversity.ac.in>

Sat, Nov 9, 2024 at 1:10 PM

Dr. SUDHAKAR SHUKLA
SCIENTIST-SE & HEAD
SCHOOL OF GEOINFORMATICS
REMOTE SENSING APPLICATIONS CENTRE, U.P.
LUCKNOW-226021
MOB: 9335918075, 8765977668

----- Forwarded message -----

From: sudhakar <shuklasudhakar1@gmail.com>
Date: Sat, Nov 9, 2024 at 12:59 PM
Subject: PROJECT PROPOSAL FOR RELEASING MONEY.
To: <dmme@nic.in>
Cc: <priyank.bharti@shobhituniversity.ac.in>


Dear Sir

In reference to your letter and subsequent discussions with Shri Bharti, a Project proposal costing Rs.7,96,531/=has been prepared to study Palaeochannels of Boodhi Ganga River.(proposal annexed)
A letter from our Director is also annexed in this regard. However by post also the same letter has been send.
May like to release the money to start up the work.

regards

Dr. SUDHAKAR SHUKLA
SCIENTIST-SE & HEAD
SCHOOL OF GEOINFORMATICS
REMOTE SENSING APPLICATIONS CENTRE, U.P.
LUCKNOW-226021
MOB: 9335918075, 8765977668

2 attachments

 BOODHI GANGA- 2024-PROJECT PROPOSAL.pdf
726K

 COVERING LETTER-APPROVED BY DIRECTOR.pdf
276K

Priyank Bharati <priyank.bharati@shobhituniversity.ac.in>
To: sudhakar <shuklasudhakar1@gmail.com>

Sat, Nov 9, 2024 at 1:11 PM

Thanku Sir

Yours sincerely,



Assistant Professor Priyank Bharati,
Department of Biotechnology,

A
PROJECT PROPOSAL
ON
IDENTIFICATION OF PALAEO CHANNELS OF BOODHI GANGA
RIVER IN MAWANA TEHSIL OF MEERUT DISTRICT THROUGH
SATELLITE BORNE DATA

BY
Dr. SUDHAKAR SHUKLA
SCIENTIST-SE & HEAD
SCHOOL OF GEOINFORMATICS DIVISION



REMOTE SENSING APPLICATIONS CENTRE,
UTTAR PRADESH,LUCKNOW

A handwritten signature in black ink, appearing to read 'Sudhakar Shukla', written in a cursive style.

A
PROJECT PROPOSAL
ON
**IDENTIFICATION OF PALAEO CHANNELS OF BOODHI GANGA
RIVER IN MAWANA TEHSIL OF MEERUT DISTRICT THROUGH
SATELLITE BORNE DATA**

1. INTRODUCTION

The Boodhi Ganga River, a palaeo-channel of the sacred Ganga River, holds significant geological and cultural importance in the Meerut District of Uttar Pradesh, India. Palaeo-channels, remnants of ancient river courses, provide valuable information about the region's hydrological history, tectonic evolution, and climatic changes. Identifying and studying these relict channels can shed light on the dynamics of fluvial systems, floodplain development, and the impact of human activities on the environment.

Meerut District, situated in the Indo-Gangetic Plains, has undergone substantial changes in its river course over thousands of years due to tectonic activity, sedimentation, and anthropogenic influences. The Boodhi Ganga River, in particular, has witnessed significant alterations, with its course shifting over time. This research aims to identify and map the palaeo-channels of the Boodhi Ganga River in Meerut District using a multidisciplinary approach, integrating remote sensing, geological surveys, and historical records.

Budhi Ganga has historical, archaeological, and cultural importance. Many events in Mahabharata happened on this old bed. Running from Muzaffarnagar, it reaches Garhmukteshwar with many obstacles. The literature shows that this old bed was alive during the invasion of Timur, however, during the reign of Akbar, the flow of the Ganges again changed. If we look at the maps in documents of land settlement, then it is known that the flow of Budhi Ganga has been present. However, the old Ganga flows from Saifpur Ferozepur in Meerut district and reaches Hastinapur. There is no obstruction in its path till Hastinapur Kaurwan. Hastinapur can also be made flood-free to some extent by reviving the Budhi Ganga.

By reconstructing the ancient course of the Boodhi Ganga River, this study seeks to:

- Enhance understanding of the region's geomorphic evolution and fluvial dynamics
- Provide insights into the impact of climatic and tectonic changes on river courses
- Inform strategies for sustainable water resource management, flood mitigation, and environmental conservation
- Contribute to the preservation of cultural heritage and historical significance associated with the river



This study will contribute to the growing body of knowledge on palaeo-channels in the Indo-Gangetic Plains, offering valuable implications for regional planning, environmental sustainability, and geological research.

Geomorphic Evolution

The Boodhi Ganga River, a paleo-channel of the Ganga River, is situated in the Indo-Gangetic Plains (IGP), one of the world's largest alluvial plains. The region's geomorphic evolution is characterized by:

1. **Tectonic Setting:** The IGP is a foreland basin formed due to the collision between the Indian and Eurasian plates. This tectonic activity has controlled the region's drainage pattern and sedimentation processes.
2. **Fluvial Aggradation:** The Boodhi Ganga River has experienced repeated episodes of aggradation, resulting in the formation of multiple terraces and floodplains.
3. **Channel Avulsion:** Changes in sediment load, tectonic activity, and sea-level fluctuations have led to channel avulsions, resulting in the formation of new channels and abandonment of old ones.
4. **Neotectonic Activity:** Recent tectonic movements have influenced the region's geomorphology, causing changes in river courses and floodplain development.

Fluvial Dynamics

The Boodhi Ganga River's fluvial dynamics are shaped by:

1. **River Course Changes:** Historical records and satellite imagery reveal significant changes in the river's course over time, with meandering and braiding patterns.
2. **Floodplain Development:** The river's floodplain has expanded and contracted in response to changes in sediment load, precipitation, and human activities.
3. **Sedimentation and Erosion:** Sedimentation patterns reflect the river's energy and sediment load, while erosion has shaped the riverbanks and floodplain morphology.
4. **Hydrological Variability:** Seasonal and annual variations in precipitation and runoff influence the river's discharge, affecting its geomorphic processes.

Factors Influencing Geomorphic Evolution and Fluvial Dynamics

1. **Tectonic Activity:** Local tectonic movements and regional stress fields.
2. **Climatic Changes:** Variations in precipitation, temperature, and sea level.
3. **Human Activities:** Deforestation, urbanization, and infrastructure development.
4. **Sediment Load:** Changes in sediment supply from the Himalayas.

Implications

Understanding the geomorphic evolution and fluvial dynamics of the Boodhi Ganga River region informs:

1. **Flood Risk Management:** Identifying flood-prone areas and developing mitigation strategies.
2. **Water Resource Management:** Managing groundwater recharge and surface water resources.
3. **Environmental Conservation:** Preserving ecological habitats and biodiversity.
4. **Urban Planning:** Informed decision-making for infrastructure development and urban growth.

2. ABOUT-Remote Sensing Applications Centre(RSAC-UP)

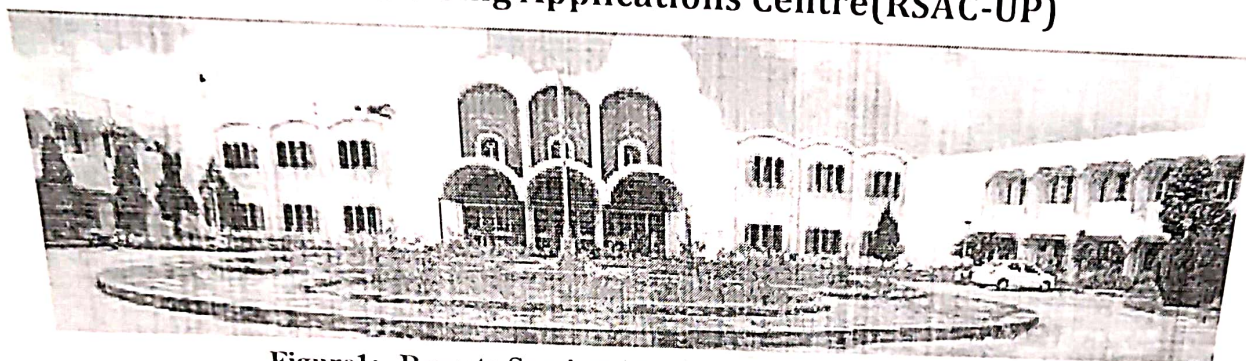


Figure1:- Remote Sensing Applications Centre- UP

Realizing the potential of remote sensing techniques, the Govt. of Uttar Pradesh, India took the lead in establishing the first state level Remote Sensing Applications Centre, U.P. at Lucknow (Figure-1). Remote Sensing Applications Centre, Uttar Pradesh was formally established by the Government of Uttar Pradesh as an autonomous organization in May, 1982, for the purpose of utilizing the newly developing technology of remote sensing in better management of the entire gamut of natural resources. The fundamental aim of establishing the Centre was to use the emerging technology of aerial and satellite remote sensing in conjunction with conventional methodologies in different natural resources management programmes. This Centre is also aimed to act as an interface between the high technology of remote sensing and the actual end user.

Ever since its inception, this Centre has been generating natural and man-made resource related data through utilization of satellite remote sensing technique and providing the data thus generated to the numerous State Government User Departments. The activities have ever since the beginning been diversified in multidisciplinary mode. A team of scientists specializing in *Earth Sciences, Water Resources, Forestry, Agriculture, Soil Sciences, Geography, Urban Surveys and Planning etc.* and all having been trained in application of remote sensing techniques in their respective domains of specialization contributed towards the implementation of multidisciplinary projects either at the behest of the User Departments or as in-house programmes.

The Centre is undertaking specific investigations on behalf of the user departments by integrating Remote Sensing technology with other conventional techniques for efficient exploitation and management of the resources and assets present in the surroundings. In order

to accrue maximum benefits out of the efforts of the Centre, it is necessary that a regular institutional interaction with the User Departments for utilization of sector-wise potentialities of remote sensing technology be attempted and suitable mechanism established. Several major projects at the behest of Govt. of Uttar Pradesh and other states have been completed and vital information has been provided to the various user agencies.

Taking ahead the age old legacy the centre is endeavouring to proficiently utilize emerging technologies in collaboration with remote sensing* techniques in order to devise innovative methods and applications to cater to the user departments in the best possible way.

RSAC-UP has also been nominated as a nodal agency for Remote Sensing /GIS/GPS/LiDAR and GPR related work by Chief Secretary, Government of UP, vide G.O. छवंपरी०एम०-५०/४५वि/२०१८-७(१५)वि २०१५ dated १८.१२.२०१८

In reference to the mail, dated 29th April, 2024 and letter number 4311/osd-camp/2024 from Sri Deepak Meena, DM, Meerut, a proposal have been prepared to meet out the desired objectives.

3. BROAD OBJECTIVES

The objective of the project is to prepare a Remote Sensing- GIS and GPS based utility maps using High resolution Satellite Imagery which will provide an improvised information for decision making for better planning of the campus for future development.

The scope of work can be broadly analysed as:

In order to Identify, map, and characterize the palaeo-channels of the Boodhi Ganga River in Meerut District, Uttar Pradesh, India , following are the scopes under the project:

- **Remote Sensing and GIS Analysis:** Utilize satellite imagery, aerial photographs, and GIS techniques to identify and map palaeo-channels.
- **Field Investigations:** Conduct field surveys to validate remotely sensed data and collect sediment samples for palaeo-environmental analysis.
- **Geological and Geomorphological Mapping:** Create detailed maps of the river's palaeo-channels, floodplains, and terraces.
- **Historical Record Analysis:** Analyze historical documents, records, and literature to understand the river's course changes over time.
- **Palaeo-Environmental Reconstruction:** Reconstruct the palaeo-environmental conditions, including climate, vegetation, and land use.

3. WORK FLOW/METHODOLOGY

To fulfil the objectives of the project, RSAC-UP aims to provide a complete working solution to the concerned Organisation through extensive survey, GIS data creation and verification. In order to complete all the tasks under the project maintaining its proper quality and within the stipulated time, a detailed



work flow methodology is given as here under. This project involves updating and modification of Base maps comprising of surface assets in GIS environment using satellite images of the study area.

- Literature Review
- Remote Sensing and GIS Analysis
- Field Investigations (sediment sampling, trenching, and geomorphic mapping)
- Laboratory Analysis (sedimentology, paleontology, and geochronology)
- Historical Record Analysis
- Geo-spatial Analysis

4. TIME LINE

- Literature review and remote sensing analysis (1 month)
- Field investigations (1 month)
- Data interpretation and mapping (1 month)
- Report writing and publication (1 month)

5. BUDGET ESTIMATE:

Cost estimate for the current study has been produced as here under

BUDGET

S No.	DESCRIPTION	DETAILS	COST (in Rupees)
(1)	MANPOWER COST	Manpower (3 Project Scientists @ Rs. (29000*3) for 4 months = Rs. 348000/- Service Charges @ 4.5% = Rs. 15660/-	3,63,660/-
(2)	FIELD INVESTIGATIONS	<ul style="list-style-type: none"> • Vehicle POL for 200km. Per day@ Rs.15/km for minimum 15 days • Hydrological and GPS Investigations 	1,50,000/-
(3)	CONTINGENCY/MISCELLANEOUS CHARGES	Day to day other expenses	1,00,000/-
Total			6,13,660/-

Shree

(4)	OVER HEAD CHARGES	@ 10 Percent of the total cost of the project	61,366/-
(5)	GST CHARGES	@ 18 Percent of the total cost of the project	1,21,505/-
Grand Total		Initial cost of the work along with printed maps.	7,96,531/-

6. EXPECTED OUTCOMES

1. **Palaeo-Channel Maps:** Detailed maps of the Boodhi Ganga River's palaeo-channels.
2. **Geomorphic Evolution Model:** A conceptual model explaining the river's geomorphic evolution.
3. **Palaeo-Environmental Reconstruction:** Insights into the region's past environmental conditions.
4. **Flood Risk Assessment:** Identification of flood-prone areas.
5. **Groundwater Resource Evaluation:** Assessment of groundwater potential in palaeo-channels.

7. DELIVERABLE:

1. **Project Report:** Comprehensive report detailing methodology, results, and conclusions.
2. **Maps and Figures:** Geo-referenced maps, and diagrams in A1 Size
3. **Database:** GIS database of palaeo-channels, and laboratory results.

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Shanti