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Bihar State Biodiversity Board

(A Statutory Body of the Government constituted under Biological Diversity Act. 2002)



Invitation

of

Expression of Interest

for

Knowledge Partnership

for

Urban Biodiversity Studies including

City Biodiversity Index Assessment

for

Major Cities and Urban Areas in Bihar

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Bihar State Biodiversity Board

(A Statutory Body of the Government constituted under Biological Diversity Act. 2002)



No.05 Date: 21.03.2025

**Advertisement Notification**

**Invitation of Expression of Interest for Knowledge Partnership for Urban Biodiversity Studies including City Biodiversity Index Assessment for Major Cities and Urban Areas in Bihar**

1. In view of the wide-ranging concerns of biodiversity in the urban landscapes, coupled with the ongoing processes of urbanisation and the related implications for ecological balance and environmental-economic sustainability in context, it is imperative to undertake specialized studies and assessment in respect of urban biodiversity to generate actionable knowledge for precautionary, anticipatory, restorative and progressive strategies and programmatic actions and interventions for ensuring healthy urban ecosystems over medium and long-run time horizons.
2. The Bihar State Biodiversity Board (BSBB) is undertaking biodiversity related assessments and studies for the major urban areas in Bihar. In this context, the assessments have also to be done with reference to the City Biodiversity Index framework guided by Convention on Biological Diversity’s Singapore Index model. The indicative reference framework of assessment based on 23 indicators under 3 prime or core components with scoring template is given in Annexure C. The detailed reference document and literature on the City Biodiversity Index under reference is already available in public domain.
3. To begin with three cities viz. Patna, Bhagalpur and Gaya have been chosen for the relevant assessment and studies. This would be followed up for several more cities / urban areas in Bihar.

The purpose is to highlight the current status, the temporal and spatial variations, recent trends and future projections regarding various characteristics of biodiversity and related ecosystem services, so that policy, strategy and programme related knowledge indicators with identified prospects and opportunities, and areas of concerns emerge from the exercise, leading to appropriate action and intervention pathways.

The exercise / task will commence with baseline setting over the first year, and thereafter regular assessment over cycles of 3 to 5 years.

1. The BSBB, proposes to engage selected institutes and organizations with mandate or interest and possessing relevant capabilities / competence, as **Knowledge Partners** for collaborative or stand-alone works of assessment and studies in one or more subject areas or domain specializations mentioned hereafter and also in the annexures herewith. The proposed engagements are envisaged as collaborative or partnered undertakings, with modalities to be worked out with full cost and / or shared cost to BSBB, with the broad underlying arrangement that the main operational expenses on the studies and assessment shall be largely borne by the BSBB.

Towards this end, **Expression of Interest (EoI) for Knowledge Partnership** is invited from the institutes and organizations with eligibility qualifications indicated hereafter in Annexure A along with the scope of work and collaboration and the options for the modes of engagement.

The EoI is expected in the format with the details as prescribed in Annexure B.

1. The EoI is to be submitted over email (bdbihar@bihar.gov.in) with a forwarding letter in the format prescribed in the item (1) in Annexure B, preferably on the official letterhead of the EoI submitting institution / organization, and addressed to the Secretary, Bihar State Biodiversity Board, Patna. The hard copy of the EoI may also be sent by post / courier at the following address:

 The Secretary,

Bihar State Biodiversity Board

4th Floor, BSBCCL Complex,

Shastri Nagar

Patna – 800023 (Bihar)

It is expected that the EoI is submitted through email or post / courier latest by the 21st day from the date of newspaper publication of the advertisement notification.

1. A consultation meeting in blended mode (online and physical in person) will be organized in 15 days from the last date of receipt of the EoIs, with the shortlisted institutions / organizations meeting the eligibility criteria for firming up the modalities of engagement and selection procedure for going ahead with the second stage of selection / empanelment of partner institutions / organizations. It is expected that a presentation focussing on the following is made by the institute / organization in the consultation meeting:
2. General ideas and understanding about the subject matter of the EoI and the scope of works / tasks;
3. Subject domain or specializations chosen / preferred (corresponding with core components with reference to the framework referred to in the Annexure C) as a prospective knowledge partner with reasons, strength and credentials etc., from amongst one or more of the following:
4. *Native biodiversity in city*
5. *Linkage of Ecosystem services with the biodiversity*
6. *Governance and management of biodiversity related subject matters*
7. Indicative process and methodology conceived for the subject domain related studies / assessments under the proposed engagement;
8. Capabilities with experience in hand in similar or comparable assignments;
9. Mode of engagement / collaboration along with statement regarding offers or commitment of the institution / organization in terms of their professional experts’ services and sharing of resources and execution of specific work items describing them preferably under following categories:

|  |  |
| --- | --- |
| Deployment / Assignment of Resources for Studies and Works or Execution of Work Items, Sharing of knowledge resources / data etc. | Terms of Collaboration and Costing\*(To be mentioned in the columns hereunder) |
| Full cost basisincluding faculty time, institutional fee/charge etc. | Shared cost basis with indicative specifications  | Other Modalities |
| 1. Scientific Professionals /

Subject Area specialists; |  |  |  |
| 1. Research Scholars / Students
 |  |  |  |
| 1. Scientific Resources, Analytical and Assessment Facilities (GIS-Mapping, Analytical labs etc.)
 |  |  |  |
| 1. Work Items
 |  |  |  |
| 1. Sharing of knowledge resources / data
 |  |  |  |

\* The other operational costs (viz. travels, board and lodge and incidental expenses of experts and subject area specialists and research scholars, hiring of vehicles, engagements for field data collection, organizing consultation meetings and workshops etc.) not covered here above shall be borne by the BSBB.

1. For any query or clarification, Deputy Director, BSBB (Mobile No.:9835413413) may be contacted.

 (S. Chandrasekar)

 Secretary, Bihar State Biodiversity Board, Patna

**Annexure A**

1. **Eligibility criteria, Scope of works and collaborations and options for modes of engagement for the Empanelled Institutes / Organizations / Entities as Knowledge Partners**

|  |  |  |
| --- | --- | --- |
| **Eligibility Criteria** | **Proposed Scope of works and collaboration** | **Options for Modes of engagement**  |
| **(1)** | **(2)** | **(3)** |
| 1. Academic Institutions of repute or Organizations / Entities engaged in Research or Consultancy works in Scientific Academic / Management / Public Policy subject area relevant to the tasks envisaged in this EoI.
2. The Institution / Organization / Entity should be recognized for academic or professional education under University Grants Commission or All India Technical Education Council or other statutory institutional provisions of the State Governments or the Government of India OR Institution / Centre of CSIR/ICAR/ICFRE OR

registered as Scientific and Industrial Research Organization (SIRO) with the Department of Science & Technology, Government of India.1. The Institution / Organization / Entity should have been in existence for a period of at least 5 years as on the due date of the application.
2. The Institution / Organization / Entity should have in the last 3 years, the experience of having conducted or collaborated in similar studies, as envisaged in this EOI, in Government projects, in any of the following domains / subject areas:
3. Ecology related studies – assessment of floral and faunal diversity, landscape ecology and ecosystem functions and services;
4. Environmental Studies – pollution, land degradation related interactions with biodiversity and ecosystem factors and attributes;
5. Climate change impacts, and adaptation or mitigation measures
6. Water resources, hydrology or hydro-meteorology related studies
7. Bio-spatial related GIS works
8. Governance, development management, public policy, public systems, projects or programmes on environmental subject areas including biodiversity, forests and wildlife or social and economic fields.
 | Technical consultancy and advisory services for Biodiversity studies of major urban areas of Bihar (cities and urban agglomerates) on following attributes and factors:1. Characterizing and Assessment of biodiversity status in the selected urban landscapes across terrestrial, semi-aquatic and aquatic biomes etc., vegetation - floral, faunal (entomological, avian, small fauna) and soil biota etc.
2. Ecosystem and Environment related relationships, interactions and functions / services in the study areas
3. Governance, policy/strategic and programmatic dimensions

The services will include the following work elements:* + Developing the frameworks for baseline survey, appraisal and assessments
	+ Research and survey methodology and designing etc.
	+ Report formats.
1. Verification, Analysis and Aggregation / Integration of data and drafting of reports.
2. Supervision / guidance of student Interns engaged by BSBB for the tasks
 | 1. Assignment of scientific or specialist professionals in the domain(s) / subject area(s) and work elements indicated in column (1) and column (2) contributing to the tasks envisaged in this EOI, including supervision and guidance of student Interns engaged by BSBB for this purpose;

OR1. Undertaking stand-alone works in one or more of the identified domains / subject areas indicated in column (1) and column (2) contributing to the tasks envisaged in this EOI.

  |

**Annexure B**

**Format for Submission of Expression of Interest**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. **Forwarding Letter to be submitted in the Official Letterhead of the Institution / Organization on whose behalf the EoI is submitted.**

To  **The Secretary** **Bihar State Biodiversity Board** **Patna** Subject: **Expression of Interest for Knowledge Partnership for Urban Biodiversity Studies including Development and Assessment of City Biodiversity Index for Major Cities and Urban Areas in Bihar**With reference to the advertisement of the Bihar State Biodiversity Board on the abovementioned subject, we are herewith submitting the Expression of Interest on behalf of (mention the name of the institution / organization / entity).The list of enclosures are as follows:

|  |
| --- |
| **Enclosure I**Details as required in Annexure B (Item no. 2 to Item no. 7) in the format prescribed therein. |
| **Enclosure II**  |
| Names and brief cv of the Faculty Members / Scientists and Post-doctoral Fellows / Associates with reference to column (2) and (3) of Item No. 4 | **Yes / No** |
| **Enclosure III** (related to Item no. 6) |
| IIIA – List of Internal Projects / Works with titles, period, whether completed or ongoing, and total project expenditure  | **Yes / No** |
| IIIB – List of External Projects / Works with titles, period, whether completed or ongoing, and total project expenditure  | **Yes / No** |
| **Enclosure IV – Write-up** (Item no. 7) | **Yes / No** |

Date: Name and Signature of authorised  Faculty Member / Scientist / Officer,  Designation and Seal  |

|  |
| --- |
| 1. **Institute / Organization basic details**
 |
| 1. Name:
 |  |
| 1. Postal Address:
 |  |
| 1. Contact details:
 | 1. Website:
 |
| 1. Email id:
 |
| 1. Telephone:
 |
| 1. Faculty Member(s) / Scientist(s) / Officer(s) authorised to represent regarding the EoI:
 | 1. Name(s) with designation(s):
2. Email id(s):
3. Mobile nos.:
 |

|  |
| --- |
| 1. **Institute / Organization – Category / Status**
 |
| 1. State / Central University or Deemed University
 | Yes / No; If yes, mention the Department / School / Centre / Constituent or Affiliated College submitting the EoI: |
| 1. Private University / Deemed to be University with UGC recognition.
 | Yes / No; If yes, whether registered as Scientific & Industrial Research Organization with the Department of Science and Technology, Govt. of India, please give details: |
| 1. AICTE recognized institute / organization
 | Yes / No; If yes, whether also registered as Scientific & Industrial Research Organization with the Department of Science and Technology, Govt. of India, please give details: |
| 1. Institute/centre/organization of CSIR, ICAR, ICFRE
 | Yes / No |
| 1. Other State Government or Central Government Organization / Institute
 | Yes / No; If yes, whether registered as Scientific & Industrial Research Organization with the Department of Science and Technology, Govt. of India, please give details: |
| 1. Other non-government institute / organization
 | Yes / No; If yes, whether registered as Scientific & Industrial Research Organization with the Department of Science and Technology, Govt. of India, please give details: |
| 1. **Institution / Organization - Human Resources Competency**
 |
| Details of working Professional (Scientific / Academic) manpower in subject areas / specializations – *The names and brief cv of the Faculty Members / Scientists and Post-doctoral Fellows / Associates corresponding to column (2) and column (3) here below to be annexed as Enclosure No II.*  |
| Subject area / specialization | No. of Asstt. Professor or Equivalent and above with PhD | No. of Post-doctoral Fellows / Research Associates | No. of Ph.D. Scholars (SRF/JRF)  | No. of Post Graduates |
| (1) | (2) | (3) | (4) | (5) |
| 1. Ecological Studies
 |  |  |  |  |
| 1. Biological Sciences / Life Science / Botany / Zoology
 |  |  |  |  |
| 1. Wildlife Science
 |  |  |  |  |
| 1. Environmental Science or Studies / Environment Management / Environmental Technology
 |  |  |  |  |
| 1. Climate Change Studies
 |  |  |  |  |
| 1. Water Resources / Hydrology / Hydrogeology / Hydro-meteorology
 |  |  |  |  |
| 1. GIS and Bio-spatial Analysis
 |  |  |  |  |
| 1. Management / Management in Government / Development Management / Public Systems / Public Policy / Public Administration / Development Economics
 |  |  |  |  |

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| 1. **Institution / Organization - Details regarding Infrastructure, Resources, Facilities**
 |
| 1. Environmental Monitoring and Testing Laboratories:
 |
| 1. Soil Science and Hydrological facilities:
 |
| 1. GIS Analysis Facilities:
 |
| 1. Ecological / Ecosystem Studies related resources and facilities:
 |
| 1. Other relevant infrastructure, resources and facilities:
 |

|  |
| --- |
| 1. **Institution / Organization – Experience of relevant works / engagements**
 |
| A (1) Year of Establishment of the University / Institute / Organization, if less than 10 years  |  |
| A (2) Year of Establishment of the Department / Centre / School under the University / Institute / Organization submitting the EoI, if less than 5 years |  |
| 1. **Experience of consultancy services, studies and related works done in one or more of the following subject area / domains**
 | Please mention the following abstracts in brief, annexing relevant detailed information in Enclosure III  |
| 1. Nos. of Internal Projects / Works whether completed or ongoing, and total projects’ expenditure as on date
2. Nos. of External Projects / Works whether completed or ongoing, and total projects’ expenditure as on date
 |
| 1. Ecology related studies – floral and faunal assessment, landscape ecology and ecosystem functions / services;
 | Nos. of Internal Projects / Works | Total Exp. Rs in Lakh | Nos. of External Projects / Works | Total Exp. Rs in Lakh |
|  |  |  |  |
| 1. Environmental studies – pollution, land degradation related interactions with biodiversity and ecosystem factors and attributes;
 | Nos. of Internal Projects / Works | Total Exp. Rs in Lakh | Nos. of External Projects / Works | Total Exp. Rs in Lakh |
|  |  |  |  |
| 1. Climate change impacts, and adaptation or mitigation
 | Nos. of Internal Projects / Works | Total Exp. Rs in Lakh | Nos. of External Projects / Works | Total Exp. Rs in Lakh |
|  |  |  |  |
| 1. Water resources, hydrology or hydro-meteorology related studies
 | Nos. of Internal Projects / Works | Total Exp. Rs in Lakh | Nos. of External Projects / Works | Total Exp. Rs in Lakh |
|  |  |  |  |
| 1. Bio-spatial related GIS works
 | Nos. of Internal Projects / Works | Total Exp. Rs in Lakh | Nos. of External Projects / Works | Total Exp. Rs in Lakh |
|  |  |  |  |
| 1. Governance, Management in Government, Public policy, Public Systems, Programmes or Projects on environmental subject areas including biodiversity, forests and wildlife or social and economic fields
 | Nos. of Internal Projects / Works | Total Exp. Rs in Lakh | Nos. of External Projects / Works | Total Exp. Rs in Lakh |
|  |  |  |  |

|  |
| --- |
| 1. **A brief write-up (within to 2 pages) as Enclosure IV, with any special or additional facts / information regarding the Institution’s / Organization’s competence and strength in one or more work specialization specifically in context of subject matter of the EoI.**
 |

**ANNEXURE C**

|  |
| --- |
| **Framework of the Singapore Index on Cities’ Biodiversity** |
|  **Indicators** | **Core Components** | **Indicators** | **Maximum Score** |
| Native Biodiversity in the City | 1. Proportion of Natural Areas in the City | 4 points |
| 2. Connectivity Measures | 4 points |
| 3. Native Biodiversity in Built Up Areas (Bird Species) | 4 points |
| 4. Change in Number of Vascular Plant Species | 4 points |
| 5. Change in Number of Bird Species  | 4 points |
| 6. Change in Number of Butterfly Species | 4 points |
| 7. Change in Number of Species (any other taxonomic group selected by the city) | 4 points |
| 8. Change in Number of Species (any other taxonomic group selected by the city) | 4 points |
| 9. Proportion of Protected Natural Areas | 4 points |
| 10. Proportion of Invasive Alien Species | 4 points |
| Ecosystem Services provided by Biodiversity | 11. Regulation of Quantity of Water | 4 points |
| 12. Climate Regulation: Carbon Storage and Cooling Effect of Vegetation | 4 points |
| 13. Recreation and Education: Area of Parks with Natural Areas | 4 points |
| 14. Recreation and Education: Number of Formal Education Visits per Child Below 16 Years to Parks with Natural Areas per Year | 4 points |
| Governance and Management of Biodiversity | 15. Budget Allocated to Biodiversity | 4 points |
| 16. Number of Biodiversity Projects Implemented by the City Annually | 4 points |
| 17. Existence of Local Biodiversity Strategy and Action Plan | 4 points |
| 18. Institutional Capacity: Number of Biodiversity Related Functions | 4 points |
| 19. Institutional Capacity: Number of City or Local Government Agencies Involved in Inter-agency Cooperation Pertaining to Biodiversity Matters | 4 points |
| 20. Participation and Partnership: Existence of Formal or Informal Public Consultation Process | 4 points |
| 21. Participation and Partnership: Number of Agencies/Private Companies/NGOs/Academic Institutions/International Organisations with which the city is Partnering in Biodiversity Activities, Projects and Programmes | 4 points |
| 22. Education and Awareness: Is Biodiversity or Nature Awareness Included in the School Curriculum | 4 points |
| 23. Education and Awareness: Number of Outreach or Public Awareness Events Held in the City per Year | 4 points |
|   | **Native Biodiversity in the City (Sub-total for indicators 1-10)** | **40 points** |
|   | **Ecosystem Services provided by Biodiversity (Sub-total for indicators 11-14)** | **16 points** |
|   | **Governance and Management of Biodiversity (Sub-total for indicators 15-23)** | **36 points** |
|  | **Maximum Total:**  | **92 points** |

**Note: The indicators may be substituted with appropriate replacement attribute within each of the three Core Components, retaining the ratio 40:16:36**