



बिहार राज्य जैव विविधता पर्वद
(जैव विविधता अधिनियम-2002 के अंतर्गत गठित सरकार का एक सांविधिक निकाय)

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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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.

4. 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 (Eol) 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 Eol is expected in the format with the details as prescribed in Annexure B.

5. The Eol 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 Eol submitting institution / organization, and addressed to the Secretary, Bihar State Biodiversity Board, Patna. The hard copy of the Eol may also be sent by post / courier at the following address:

The Secretary,
Bihar State Biodiversity Board
4th Floor, BSBCCCL Complex,
Shastri Nagar
Patna - 800023 (Bihar)

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

6. 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 Eols, 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:

- (1) General ideas and understanding about the subject matter of the Eol and the scope of works / tasks;

- (2) 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:

(a) *Native biodiversity in city*

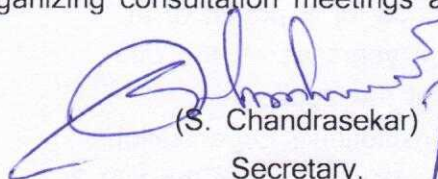
(b) *Linkage of Ecosystem services with the biodiversity*

(c) *Governance and management of biodiversity related subject matters*

- (3) Indicative process and methodology conceived for the subject domain related studies / assessments under the proposed engagement;
- (4) Capabilities with experience in hand in similar or comparable assignments;
- (5) 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 basis including faculty time, institutional fee/charge etc.	Shared cost basis with indicative specifications	Others
(i) Scientific Professionals / Subject Area specialists;			
(ii) Research Scholars / Students			
(iii) Scientific Resources, Analytical and Assessment Facilities (GIS-Mapping, Analytical labs etc.)			
(iv) Work Items			
(v) Sharing of knowledge resources / data			

* The operational costs (viz. travels, board and lodge and incidental expenses of experts and subject area specialists and research scholars, hiring of vehicles, engagement of field data collection, organizing consultation meetings and workshops etc.) shall be borne by the BSBB.


(S. Chandrasekar)
Secretary,
Bihar State Biodiversity Board, Patna.

19/12/25

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)
a. 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. b. 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. c. 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. d. The Institution / Organization / Entity should have in the last 3 years, the experience of having conducted or collaborated in	Technical consultancy and advisory services for Biodiversity studies of major urban areas of Bihar (cities and urban agglomerates) on following attributes and factors: i. 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. ii. Ecosystem and Environment related relationships, interactions and functions / services in the study areas iii. 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	(i) 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; OR (ii) Undertaking stand-alone works in one or more of the identified domains / subject areas indicated in column (1) and column (2) contributing to

similar studies, as envisaged in this EOI, in Government projects, in any of the following domains / subject areas: (i) Ecology related studies - assessment of floral and faunal diversity, landscape ecology and ecosystem functions and services; (ii) Environmental Studies - pollution, land degradation related interactions with biodiversity and ecosystem factors and attributes; (iii) Climate change impacts, and adaptation or mitigation measures (iv) Water resources, hydrology or hydro-meteorology related studies (v) Bio-spatial related GIS works (vi) Governance, development management, public policy, public systems, projects or programmes on environmental subject areas including biodiversity, forests and wildlife or social and economic fields.	and designing etc. ○ Report formats. iv. Verification, Analysis and Aggregation / Integration of data and drafting of reports. v. Supervision / guidance of student Interns engaged by BSBB for the tasks	the tasks envisaged in this EOI.
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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 Eol 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

2. Institute / Organization basic details			
i. Name:			
ii. Postal Address:			
iii. Contact details:	a) Website:		
	b) Email id:		
	c) Telephone:		
iv. Faculty Member(s) / Scientist(s) / Officer(s) authorised to represent regarding the Eol:	a) Name(s) with designation(s):		
	b) Email id(s):		
	c) Mobile nos.:		

3. Institute / Organization - Category / Status	
i. State / Central University or Deemed University	Yes / No; If yes, mention the Department / School / Centre / Constituent or Affiliated College submitting the Eol:
ii. 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:
iii. 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:
iv. Institute/centre/organization of CSIR, ICAR, ICFRE	Yes / No
v. 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:
vi. 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:
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4. Institution / Organization - Human Resources Competency				
Details of working Professional (Scientific / Academic) manpower in subject areas / specializations - <i>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.</i>				
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)
(i) Ecological Studies				
(ii) Biological Sciences / Life Science / Botany / Zoology				
(iii) Wildlife Science				
(iv) Environmental Science or Studies / Environment Management / Environmental Technology				
(v) Climate Change Studies				
(vi) Water Resources / Hydrology / Hydrogeology / Hydro-meteorology				
(vii) GIS and Bio-spatial Analysis				

(viii) Management / Management in Government / Development Management / Public Systems / Public Policy / Public Administration / Development Economics				
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5. Institution / Organization - Details regarding Infrastructure, Resources, Facilities
(i) Environmental Monitoring and Testing Laboratories:
(ii) Soil Science and Hydrological facilities:
(iii) GIS Analysis Facilities:
(iv) Ecological / Ecosystem Studies related resources and facilities:
(v) Other relevant infrastructure, resources and facilities:

6. 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				
B. 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			
(i) 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
(ii) Environmental studies - pollution, land degradation related interactions with	Nos. of Internal Projects / Works	Total Exp. Rs in Lakh	Nos. of External Projects / Works	Total Exp. Rs in Lakh

biodiversity and ecosystem factors and attributes;				
(iii) 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
(iv) 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
(v) 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
(vi) 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

7. 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 Eol.

ANNEXURE C

Framework of the Singapore Index on Cities' Biodiversity

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
Ecosystem Services provided by Biodiversity	9.	Proportion of Protected Natural Areas	4 points
	10.	Proportion of Invasive Alien Species	4 points
	11.	Regulation of Quantity of Water	4 points
	12.	Climate Regulation: Carbon Storage and Cooling Effect of Vegetation	4 points
Governance and Management of Biodiversity	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
	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