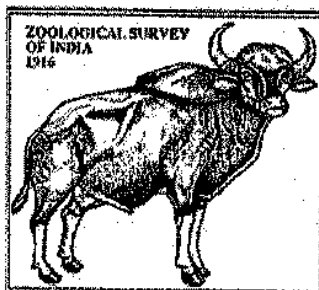


MEMORANDUM OF UNDERSTANDING

Between

ZOOLOGICAL SURVEY OF INDIA, KOLKATA



and

RANCHI UNIVERSITY, RANCHI



for

**FOR SCIENTIFIC AND EDUCATIONAL
COOPERATION**

The Zoological Survey of India (ZSI) and the Ranchi University Ranchi, agree that for encouragement and development of cooperation and exchange in areas of mutual academic interest, it is desirable to enhance research and educational processes at both the Universities/Institutes and to strengthen mutual understanding between their respective staff, scholars and students. The Zoological Survey of India, represented by the Director, ZSI and the Ranchi University Ranchi, represented by The Registrar, Ranchi University Ranchi, hereby, enter into an agreement for academic and educational cooperation and have set forth the following Articles of Mutual Agreement:

Article I

The Ranchi University Ranchi, and the Zoological Survey of India agree on, but is not limited to, the following based on their academic and educational needs:

1. Exchange of scholars and scientific staff.
2. Exchange of students.
3. Exchange of academic information and materials subjected to provisions under the Biodiversity Act (2002) and or any other such legal bindings by the Govt. of India.
4. Zoological Survey of India, Kolkata or any of the 16 Regional Centres of ZSI shall be a recognized Research Centre (including conducting contact classes/course work/examination etc.) for undertaking Doctoral and Post-Doctoral Programme by the Ranchi University Ranchi, as per the existing provisions in the ordinance of e Ranchi University Ranchi.
5. The bonafide students and research scholars of both the Institutions will have access to research facilities and logistics at e Ranchi University Ranchi and Zoological Survey of India, Kolkata or any of the 16 Regional Centres of ZSI during their course of work and research period for conducting field based or laboratory-based research.
6. The scientists of Zoological Survey of India conducting research shall be recognised as Guide/Co-Guide for supervising Master's and Doctoral Programmes in Zoology, Life Sciences, Environmental Sciences and or any other Biological Sciences according to the existing provisions in the ordinance of the e Ranchi University Ranchi and as per the provisions outlined in the UGC regulations.
7. Joint Research activities and publications could be undertaken on the following areas but not limited to:
 - i. Wetland Ecological Study and Agro-Biodiversity Study
 - ii. Ecological Studies with special reference to Semi-Arid, Dry Deciduous and Gangetic Flood Plain Fauna.
 - ii. Studies on the different Protected Areas of Jharkhand as well as neighbouring states.

- iii. Mapping using computer vision:
 - a. Air quality mapping; b. Biodiversity/fisheries mapping; c. Tiger/ endangered species mapping
- iv. Studies involving effect of geological conditions on animal health; effects of air-quality index on animal health.
- v. Predicting the impact of climate change on endangered species in Gangetic water/ stretch of river Ganga and its tributaries flowing through the state of Jharkhand.
- vi. Application of deep learning in species classification and application of computer vision in various aspects of classification.
8. Organisation and participation in conferences and academic meetings, such as courses, seminars, symposia or lectures.
9. Other Academic exchanges that both institutions agree to.

Article 2

The implementation of each exchange programme or joint project based on this agreement shall be negotiated on a case-by-case basis and agreed upon in writing by both institutions. Any such exchange programme or joint project entered into, as outlined above, will form an appendix to this basic agreement.

Article 3

The exchange programmes and/or projects as mentioned in Article 2, are not intended to be legally binding documents. They are meant to describe the nature and suggest the guidelines of the programme or project. Nothing, therefore, shall diminish the full autonomy of either university/ institution, nor will any constraint be imposed by either upon the other carrying out the agreement.

Article 4

In order to carry out and fulfil the goals of this agreement both universities/institutes shall designate a programme coordinator to develop and co-ordinate the specific programmes and projects agreed upon. The appendix, as part of the general agreement, shall include the following items and shall be decided on case to case basis.

1. Elaboration of the responsibilities of each university/institution for the agreed upon activity.
2. Schedule for the specific activity.
3. Budget and sources of financing for each activity.
4. Any other item deemed necessary for the efficient management of the activity.


The programme coordinators will be responsible for the evaluation of activities under this agreement according to the practices of the respective parties. Letters of agreement will be approved by both sides according to the normal procedures adopted by the signatory parties.

Article 5

This agreement shall take effect on the day of which it is signed and shall continue until terminated by agreement between the parties. Any changes must be agreed to in writing by both parties. A minimum period of six months' notice will be required from either party wishing to terminate the agreement.

As witness to their consent to this agreement, the appropriate authorities here unto provide their signatures.

**For the Zoological Survey of India,
Kolkata, India**

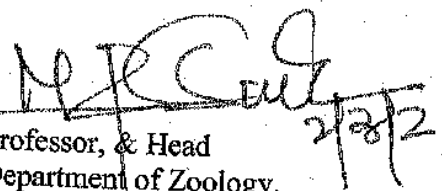

Dr. Kailash Chandra
Director
भारतीय प्राणि सर्वेक्षण
Zoological Survey of India
एन.ए.पी. भवन, मंत्रालय, भारत सरकार
W.O.P.F. & C.C., Govt. of India
कोलकाता / Kolkata

Date: 21/03/2021

<Dr. Kailash Chandra>

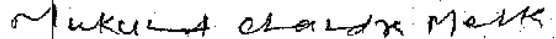
Director, ZSI

Date: _____


Professor, & Head
Department of Zoology,
Ranchi University, Ranchi

Professor & Head
University Department of Zoology
Ranchi University, Ranchi

**For Ranchi University,
Ranchi, Jharkhand, India**


Registrar
Ranchi University, Ranchi

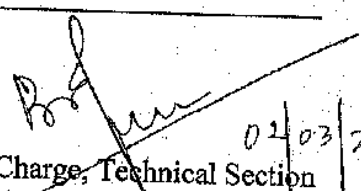
Date: 02.03.2021

<Dr. M.C. Mehta>

Registrar, Ranchi University

Date: _____

Witness


Scientist-E & Officer-in-Charge, Technical Section
Zoological Survey of India
Kolkata

प्रभारी अधिकारी
Officer-in-Charge
तकनीकी अनुभाग / Technical Section
भारतीय प्राणि सर्वेक्षण / Zoological Survey of India
कोलकाता / Kolkata-700033

02/03/2021