



ANUSANDHAN

A Peer Reviewed Multidisciplinary
Research Repository

1st Edition 2026



Editors

Dr. Shamim Ahmed Shamim Khan Barbhuiya

Dr. Saurabh Sarma

Dr. Kowser Alam Laskar

Dr. Atiqur Rahman Laskar

Dr. Gulenoor Islam Barbhuiya

ANUSANDHAN

A Peer Reviewed Multidisciplinary Research Repository

Editors

Dr. Shamim Ahmed Shamim Khan Barbhuiya

Assistant Professor, Department of Zoology,
M. H. C. M Science College, Algapur, Hailakandi, Assam, India

Dr. Saurabh Sarma

Subject Matter Specialist (Plant Protection) and
Head, ICAR-Krishi Vigyan Kendra, Hailakandi, Assam, India

Dr. Kowser Alam Laskar

Department of Botany, Moinul Hoque Choudhury Memorial Science College,
Algapur, Hailakandi, Assam, India

Dr. Atiqur Rahman Laskar

Assistant Professor, Department of Chemistry, Moinul Hoque Choudhury Memorial
Science College, Algapur, Hailakandi, Assam, India

Dr. Gulenoor Islam Barbhuiya

Assistant Professor (NP), Department of Anthropology, M.H.C.M. Science College,
Hailakandi, Assam, India

ISBN: 978-93-94174-56-6

<https://doi.org/10.20546/978-93-94174-56-6>



Excellent Publishers



Excellent Publishers

Kancheepuram, India

www.excellentpublishers.com

email id: excellentpublishers2013@gmail.com

Copyright © 2026 Excellent Publishers. All rights reserved.

Publisher: Excellent Publishers

Editors: Dr. Shamim Ahmed Shamim Khan Barbhuiya, Dr. Saurabh Sarma, Dr. Kowser Alam Laskar, Dr. Atiqur Rahman Laskar, Dr. A. F. Gulenur Islam Barbhuiya

ISBN: 978-93-94174-56-6

DOI: <https://doi.org/10.20546/978-93-94174-56-6>

Note: No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any information storage and retrieval system, without permission in writing from the publisher.

Table of Contents

Contents	Page No.
Chapter-1 Revisiting the Sixth Schedule: Does Constitutional Autonomy Really Protect Tribal Land Rights in Northeast India <i>Bipul Pator</i>	1-10
Chapter-2 Sylhet's Severance and its Repercussions on Assam: A Historical Perspective <i>Sherin Sultana Talukdar</i>	11-19
Chapter-3 Important items of imports and exports of colonial Barak Valley <i>Khalil Ahmed Mazarbhuiya</i>	20-27
Chapter-4 Energy for Tomorrow: Innovations in Renewable and Clean Technology <i>Jyoti Prasad Roy Choudhury</i>	28-36
Chapter-5 The Past Documented Roots of Cultural Identity and Economic Practices in North East India <i>Ahmedur Rahman Barbhuiya</i>	37-42
Chapter-6 Social Control over Banks With Reference to IIBI <i>Sweta Jalan</i>	43-49
Chapter-7 Liquid Crystal Materials and its Versatile Important in Modern World <i>Atiqur Rahman Laskar</i>	50-57
Chapter-8 Quantum Algorithms for Protein Folding in Bacterial Infection: A Promising Avenue in Biomedical Research <i>Hussain Ahmed Barbhuiya and Shamim Ahmed Shamim Khan Barbhuiya</i>	58-68
Chapter-9 Genetically Modified Foods: Evaluating Their Safety for Human Health and Environmental Sustainability <i>Mahmud Hussain Barbhuiya</i>	69-76
Chapter-10 How to Provide an Optimal Learning Environment While Reducing Energy Costs <i>Anamul Haque Laskar</i>	77-84
Chapter-11 The Role of Mathematics in Teaching Biosciences: An Evidence-Based Approach to Curriculum Integration <i>Abdul Hannan Choudhury</i>	85-92

Chapter-12 The Living Legacy of Asharikandi Terracotta Craft <i>Jayanta Saikia and Rajib Ratan Kashyap</i>	93-103
Chapter-13 A Study on the Non-conventional Vegetables and Fruits of Barak Valley, Assam and Their Commercialization Prospects <i>Rohan Paul, Prajna Chakraborty and Aniruddha Sen</i>	104-113
Chapter-14 Nutritional Anthropology: A Modern trend in Anthropological Research to Understand the Interactions of Food, Culture, Biology and Health in Human Beings <i>A. F. Gulenur Islam Barbhuiya</i>	114-127
Chapter-15 Brewing Culture: An Ethnographic Exploration of Socio-Cultural Dynamics among the Tea Garden Community in Barthal Tea Estate, Cachar District, Assam <i>A. F. Gulenur Islam Barbhuiya and Shivam Paul</i>	128-137
Chapter-16 Body Mass Index as an Indicator of Health Among the Raji Tribal <i>Manwendra Singh Bartwal and M. Babydaina Chanu</i>	138-151
Chapter-17 Recent Status of Reserve Forests in Sribhumi (Karimganj) District (Assam) using Forest Canopy Density (FCD) Model <i>Amir Sohail Choudhury, Abul Fazal Mazumder, Olida Khanom Barbhuiya, Deboleena Sinha and Kowser Alam Laskar</i>	152-161
Chapter-18 Ethnozoological Practices Among the Traditional Healers and Indigenous Communities of Golaghati village of Sipahijala District, Tripura, Northeast India. <i>Rumki Nath Sen, Parichita Ray Choudhury and Sahil Singha</i>	162-172
Chapter-19 Understanding the Decline in the Raji Tribe's Population <i>Akshat Mishra and Manwendra Singh Bartwal</i>	173-188
Chapter-20 The Heavenly Earth <i>Kamal Uddin Mazarbhuiya</i>	189-193
Chapter-21 Pheromones: The Chemical Signalling System in Animals. A Review <i>Ujjwal Barbhuiya</i>	194-202
Chapter-22 Socio-Cultural Profile of the Deori Tribe of Assam <i>Junumai Deori</i>	203-211

Chapter-23 Literary Representations of Culture and Identity in Northeast India: Foundations for Cultural and Creative Entrepreneurship <i>Kamal Uddin Mazarbhuiya</i>	212-216
Chapter-24 Socio-Religious Reform Movements of India in 19th Century: Causes, Reformers and Social Transformation <i>Sudip Roy</i>	217-225

Preface

The present edited volume brings together a diverse collection of scholarly contributions that collectively explore the intersections of culture, science, technology, environment, economics, health, history, and sustainable development. Covering a wide range of multidisciplinary themes, this book reflects the growing importance of integrative research in understanding contemporary societal challenges and emerging opportunities in both regional and global contexts. The chapters included in this volume provide valuable insights into innovative banking systems, historical transformations, renewable energy technologies, socio-cultural identities, indigenous knowledge systems, environmental sustainability, biomedical sciences, educational reforms, anthropological studies, and emerging scientific advancements.

A major strength of this volume lies in its focus on North East India, a region known for its rich cultural diversity, ecological significance, and historical complexity. Several chapters highlight the socio-cultural heritage, traditional practices, indigenous communities, handicrafts, food systems, and ethnozoological knowledge of the region, thereby contributing to the preservation and documentation of local traditions and identities. This integration is particularly relevant in the present era, where sustainable development requires collaborative approaches that encompass cultural preservation, technological advancement, environmental protection, and socio-economic resilience. The discussions presented in this book not only enrich academic discourse but also provide practical implications for policymakers, researchers, educators, and development practitioners.

Special emphasis has been placed on issues of sustainability, public health, environmental conservation, and inclusive development. Chapters focusing on reserve forests, nutritional anthropology, tribal health, and socio-religious reform movements demonstrate how historical and cultural understanding can contribute to present-day developmental strategies. Similarly, studies related to retail banking, energy-efficient learning environments, and commercialization prospects of regional resources reflect the dynamic economic transformations occurring within society.

This volume is intended to serve as a valuable academic resource for researchers, students, academicians, and professionals across multiple disciplines. It is hoped that the insights presented herein will inspire further research, foster interdisciplinary collaboration, and contribute meaningfully to knowledge generation and sustainable societal progress. The editors express their sincere gratitude to all contributing authors, reviewers, and supporters whose efforts made this publication possible.

About the Editors



Dr. Shamim Ahmed Shamim Khan Barbhuiya did his M.Sc. (Life Science), B.Ed., Ph.D. (Reproductive Immunotoxicology) from Assam University, Silchar. He is currently serving as an Assistant Professor in the Department of Zoology, M. H. C. M Science College, Algapur, Hailakandi, Assam. His specializations include Physiology, Biochemistry and Immunotoxicology. His fields of research interest focus on Reproductive toxicology, integrating Biochemistry and Immunology. He has attended many seminars, workshops and national and international conferences. He has published many research papers in National and International Journals as well as contributed to many book chapters.



Dr. Saurabh Sarma, obtained his M.Sc. and Ph.D. in Agricultural Entomology from Assam Agricultural University, Jorhat, Assam. He also holds a Postgraduate Diploma in Environmental Science from NESI, New Delhi. He is currently serving as Subject Matter Specialist (Plant Protection) and acting Head at ICAR-Krishi Vigyan Kendra, Hailakandi. His areas of expertise include biological control, integrated pest management, biopesticides, entomopathogens and insect biodiversity studies. Dr. Sarma has received several awards from nationally recognized platforms. He has actively participated in numerous seminars, workshops and national as well as international conferences. He has published many research papers and review articles in journals of national and international repute and has authored several book chapters, technical bulletins, books and training manuals. In addition, he has served as an invited reviewer for various national and international journals and is a member of several learned societies in field of agricultural sciences.



Dr. Kowser Alam Laskar, completed his M.Sc. and Ph.D. from Assam University, Silchar. He joined the Department of Botany at Moinul Hoque Choudhury Memorial Science College, Algapur, Hailakandi, Assam, as an Assistant Professor in 2008. His research interests include Biodiversity, Conservation Biology, Plant Ecology, Plant Taxonomy, Phytopathology, Microbial Ecology, Community Ecology, Ethnobotany, Mushroom Technology and Natural Resource Management. He has published a complete text book on Environmental Studies. Dr. Laskar has participated in numerous seminars, symposia, workshops and national as well as international conferences. He has also published many research papers in journals of national and international repute, along with several book chapters.



Dr. Atiqur Rahman Laskar is working as an assistant professor at the Department of Chemistry, Moinul Hoque Choudhury Memorial Science College, Algapur, Hailakandi, Assam. He did his M.Sc. (Chemistry Department), Ph.D. from Assam University, Silchar. His fields of research interest on liquid crystals, supramolecular chemistry, organic functional materials, photoswitchable organic materials and self-assembled organic semiconductors. He has attended many seminars, workshops and national and international conferences. He has published many research papers in National and International Journals as well as contributed to many book chapters. He is the life member of Indian Liquid Crystal Society.



Dr. A. F. Gulenur Islam Barbhuiya, completed his M.Sc. in Anthropology (Specialization: Advanced Physical Anthropology) and PhD (Biological Anthropology) from the Department of Anthropology, Gauhati University. Dr. Barbhuiya qualified UGC-SLET, UGC-NET (twice) in Anthropology; JRF (Public Health and Nutritional Anthropology) in AnSI, NERC, Shillong. Besides that, he had published 25 articles in journals of national/international reputation and 8 articles/chapters in edited books. He had also completed 15 Training Courses/ FDPs/ Workshops as well as presented (papers)/ participated in several Seminars/ Conferences/ Lectures/ Webinars. He is currently serving as an Assistant Professor (NP) in the Department of Anthropology, M.H.C.M. Science College, Hailakandi, Assam and has more than 18 years of Teaching and Research experience in Anthropology and allied disciplines. His areas of interest are several domains of Bio-Cultural Anthropology like Physical, Cultural, Medical, Ecological, Nutritional, Public Health, Human Genetics, Bio-Statistics & Applied Anthropology.