

Curriculum Vitae

Manoranjan Ghosh, Ph.D.

Assistant Professor of Climate Change and Sustainability Studies

Symbiosis School for Liberal Arts

Symbiosis International (Deemed University)

Pune, Maharashtra, India

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Educational Qualification:

Ph.D. in Climate and Development, Indian Institute of Technology, Kharagpur, 2017-2021.

M.A. in Geography, Specialising in Climate Change, University of Burdwan, 2013-2015.

B.Ed. in Educational Psychology, Himachal Pradesh University, 2013.

B.A. in Geography (Honours), Birpara College, University of North Bengal, 2009-2012.

Awards and Fellowship:

1. India Health Policy and System Research Fellowship, 2024-2025.

2. Climate Co-adaptation Fellowship, PlanAdapt, Germany, 2022-2023.

3. Youth Empowerment in Climate Action Platform (YECAP) Fellowship -2021-2022.

4. India Smart Cities Fellowship, Ministry of Housing and Urban Affairs, India, 2022.

5. Junior Research Fellowship (JRF/SRF), UGC, Government of India, 2016-2021.

6. West Bengal SET, Government of West Bengal, 2016.

7. Monthly Merit cum Scholarship, Govt. of West Bengal, 2013-2015.

8. Selected for Mentor of Change - Atal Innovation Mission, NITI Aayog, 2017.

Research and Work Experience:

August, 2023 - Present Assistant Professor of Climate Change and Sustainability Studies at Symbiosis School for Liberal Arts, Symbiosis International (Deemed University), Pune, India.

January, 2024 - Present Member, Board of Editors, **Confluence: Journal of Interdisciplinary Studies**. Symbiosis School for Liberal Arts, Pune.

February 2023- July, 2023 Researcher at Council on Energy, Environment, and Water (CEEW), New Delhi; Title of the Project: **Developing Clean Environment and Climate Change Knowledge Portal for Director for Environment, Govt of Uttar Pradesh**.

October 2021 - October 2022. **Fellow (ISCF)** at National Institute of Urban Affairs, New Delhi, 2021-2022. Title of Project: **Developing a Climate Change Mitigation and Adaptation Tool for Cities using Participatory Data** (Funded by Ministry of Housing and Urban Affairs and Nashik Smart City).

January 2017- June, 2021. **Doctoral Fellow (UGC-JRF/SRF)** Title of Ph.D. dissertation: **Rural Livelihoods and Socio-Economic Vulnerability in Context of Climate Changes in Sub-Himalayan Region**. Superior Prof. Somnath Ghosal

(Geography); **Doctoral Committee:** Prof. Pulak Mishra (Economist), Prof. Bagirath Behara (Environmental Science), Prof. Joy Sen (Environmental Planning).

June 2018 - December 2020. **Teaching Assistant:** Name of the Course: **Participatory Appraisal and Field Survey for Graduate Thesis** at CRDIST, IIT Kharagpur. Guided students in preparing field reports.

June 2021 - October 2021. **Research Assistant:** ICSSR project at IIT Kharagpur title of the project: **Nature of Human Interactions with Greeneries: Evidence from an Urban Environment, India**. Prepared questionnaires and conducted field surveys, final editing of reports.

June 2016- December 2016. **Researcher:** Worked Department of Geography, Burdwan University. Title of Project Historical geography of forestry and forest culture in sub-Himalayan West Bengal, 1757-2015.

September 2015- June 2016. **Cartographer:** Trained students in advanced GIS technology at Archana Institute of Technical Education and Research, West Bengal, India.

Area of Research Interest:

Environment and Society, Climate Vulnerability and Adaptation, Heatwave and Health Risk, Livelihoods, Natural Resource Uses, Climate Resilience and Development Practices, GIS and Research Methods, and Social and Environmental Data Analysis.

Course Co-Developed:

1. Environment, Development, and Sustainability: Issues and Ideas.
2. Fundamentals of Water Science and Water Resource Management.
3. Climate Change: Science, Modelling, Risk, Vulnerability, Adaptation and Policy.
4. Environmental Data Analytics and Laboratory Measurements.
5. Mapping Environmental Change through Technology (RS&GIS).
6. Comprehensive Understanding of Environmental Toxicology: Air, Water, and Soil Pollution.
7. Environmental and Energy Economics: Policy and Governance.
8. Designing Green Infrastructure and Sustainable Habitat.
9. Everyday Environmental Issues and Applied Solutions.

Course Taught and Co-taught:

1. Research Methodology: Philosophy, Methods, and Analysis.
2. Revising the city: Urbanisation and Urban Reality.

Journal articles:

1. Kumar, H., **Ghosh, M.** & Ghosal, S. (2025). Unravelling the impact of land use transformation on thermal environment across seasons: A comprehensive study of rapidly urbanising Patna Planning Area, India. *Environmental Science and Pollution Research*. **Springer**.
2. **Ghosh M.** and Ghosal S. (2022). Geographies of Socio-Economic Vulnerability to Climate Change: Empirical Evidence from the Indian Himalayan Foothills; *Asia-Pacific Journal of Regional Science*; **Springer**.
3. Saha A., **Ghosh M.**, Pal S C, (2022). Estimation of rainfall-runoff using SCS-CN method and GIS techniques in drought-prone area of Upper Kangsabati Watershed, India, *Journal of Sustainable Water Resources Management*, **Springer**.
4. **Ghosh M.** and Ghosal S. (2021). India's Domestic Climate Policy: Past, Present and Future Strategies; *Annals of National Association of Geographers India*. Vol-43, Issue-1.
5. **Ghosh M.** and Ghosal S. (2021). Multidimensional Rural Livelihoods in Indian Sub-Himalaya: Regional Analysis, Households Well-being and its Determinants; *International Journal of Rural Management*; Vol -17, Issue-2; **SAGE**.
6. **Ghosh M.** and Ghosal S. (2021). Household Choice and Its Drivers to Rural Non-Farm Livelihood Diversification in West Bengal, India. *Journal of Asian and African Studies*; Volume 57, Issue 6, **SAGE**. Springer. Impact factor: 0.998
7. Bag, R., **Ghosh M.** (2020). Understanding the Spatio-temporal pattern of COVID-19 outbreak in India using GIS and India's response in managing the pandemic; *Regional Science: Policy and Practices*; **Wiley**. Vol-12, Issue-3.
8. **Ghosh M.** and Ghosal S, (2020). Climate Change Vulnerability of Rural Households in Flood-Prone Areas of Himalayan Foothills, West Bengal, India, *Environment, Development and Sustainability*; **Springer**. Impact factor: 4.080
9. **Ghosh M.** and Ghosal S. (2020). Determinants of Household Livelihood Vulnerabilities to Climate Changes in the Himalayan Foothills of West Bengal, India. *International Journal of Disasters Risk Reduction*, **Elsevier**. Impact factor: 4.842
10. **Ghosh, M.** and Ghosal, S. (2019), Living with Insecurity: A Critical Examination of Environmental Problems Linking with Social Problems in Rural West Bengal, India Published in *Romanian Journal of Geography*, Vol-63, Issue-1, **Romanian Academy of Science Publishing House**.
11. **Ghosh, M.** and Ghosal, S. (2019), Historical Geography of Forestry and Forest Culture in Sub-Himalayan Bengal (1757-2015); *Space and Culture, India* Vol-6, Issue-1; ACCB Publishing, United Kingdom.

12. Pal S C, **Ghosh M.**, and Shit M., (2021). Improvement in ambient-air-quality reduced temperature during the COVID-19 lockdown period in India; Environment, Development and Sustainability. **Springer**. Impact factor: 4.080
13. Pal S C, **Ghosh M.**, and Shit M. (2021). Have any effect of COVID-19 lockdown on environmental sustainability? A study from most polluted metropolitan area of India, Stochastic Environmental Research and Risk Assessment; **Springer**. Impact factor: 3.821
14. Saha A., **Ghosh M.**, Pal S C, (2021). COVID-19 strict lockdown impact on urban air quality and atmospheric temperature in four megacities of India, Journal of Geoscience Frontiers, Impact Factor: 5.36.

Book Chapters and Working Policy Paper:

1. **Ghosh, M. and Garnaik, S. (2025)**. Death and Degree: Establishing a Relationship of Death and Heat in Scorched Delhi. Greenpeace India.
2. **Ghosh, M. (2024)**. Heat Havoc: Investigating the Impact on Street Vendors. Greenpeace India and the National Hawker Federation.
3. **Ghosh, M.** and Bag, R. (2023). Trend of Climatic Components in Sub-Himalayan West Bengal: Evidence from Jalpaiguri District During the Last Century (1901–2000). **Springer** Book chapter.
4. **Ghosh, M.**, Saha, A., and Pal, S. (2020), Does the collection and uses of NTFPs effect household well-being: evidence from forest villages in Eastern Himalaya; (Book Chapter) in Forest Resources Resilience and Conflicts: Way to Mitigation for Sustainable Livelihoods. **Elsevier**.
5. Saha, A., **Ghosh, M.**, and Pal, S. (2019), Understanding the Morphology and Development of Rill-Gully: An Empirical Study of Khoai Badland, West Bengal, India (Book Chapter) **Springer Nature**.
6. Saha, A., **Ghosh, M.**, and Pal, S. (2021), Identifying Suitable Sites for Rainwater Harvesting Structures Using Runoff Model (SCS-CN), Remote Sensing and GIS Techniques in Upper Kangsabati Watershed, West Bengal, India. (Book Chapter) **Springer Nature**.
7. Saha, A., **Ghosh, M.**, and Pal, S. (2020), Assessment of Forest Health using Advanced Geospatial Technology in Buxa Reserve Forest, Sub-Himalayan West Bengal, India; (Book Chapter) in Forest Resources Resilience and Conflicts: Way to Mitigation for Sustainable Livelihoods published by of **Elsevier**.

Media Articles:

1. How climate change is shaping democracy, [Scroll](#), 2024.
2. Can India's National Clean Air Programme ensure good air and environmental justice? [Question of Cities \(QoC\)](#): Forum for Nature, People and Sustainability, Mumbai, India-2024.
3. Kolkata's climate action plan needs to be more gender-sensitive. [Mongabay-India](#), Nov., 2022.
4. Building Urban Resilience through Solving Rural to Urban Migration in Context of Climate Change in India, ISCF Digest, Vol-4, Issue-1, 2022. <https://niua.in/iscfp/newsletter.php>
5. In Memoriam: Prof. R. P. Mishra (1930–2021), Published in Regional Science Association International. <https://shorturl.at/ZqQyT>
6. Bipono Amedar Nadi, Gangal, ebong Jola- Bipono Amra (Endangered our rivers, forest, and water body: endanger we) in Ekhon Duars: A Weekly Environmental Magazine, vol-21, issue10/2, Kolkata.
7. Himalaya theka nadi gulo bachba? (Do the rivers coming from Himalaya survive?) Editorial in Ei Samay (prominent Bengali daily), Times of India Publication, 13th November 2015.

Book review:

1. **Ghosh, M.** (2019). Sustainability Conflicts in Coastal India: Hazards, Changing Climate and Development Discourses in the Sundarbans. Switzerland: Springer International Publishing, 2018, pp 255. Published in Transaction: Institute of Indian Geographers, Vol. 41, Issue 2. Page-313-14.

Book project:

Unruly Climate: Vulnerability and Adaptation to Climate Change in the Indian Himalaya (Developing Manuscript).

Summer, Autumn School and Short Courses/Workshops:

1. Certificate Course on Geospatial Analysis: Spatial Data Management, Spatial Statistics, and Geo-statistics at Symbiosis Statistical Institute, Symbiosis International University, Pune; 25-27 August 2024.
2. Certificate Course on Environmental Economics from Bureau for Research and Economic Analysis of Development (BREAD) and International Growth Centre (IGC), 14 September to 16 November 2023 (Virtual Mode).
3. Certificate Course on Public Policy at Centre for Policy Research, New Delhi, Specialising in Climate Policy in Warming World, 21-26 Oct 2022.
4. Certificate course on 'Methods in Regional Science from Tata Institute of Social Science, Mumbai, India (Autumn School, 21st - 25th October 2019). **Nurturing Young Talent Programme** of the Regional Science Association International.

5. International workshop on ‘Rural Drinking Water Problems and Management’ jointly organized by the University of Edinburgh and Indian Institute of Technology Kharagpur at IIT Kharagpur, 14th-16th May 2019.
6. Dissemination Workshop on ‘Qualitative Methods for Research in Socially Inclusive and Sustainable Agricultural Intensification (SIAGI)’ organised by IIT Kharagpur and Australian Centre for International Agricultural Research (CSIRO) on 16th -17th September 2019.
7. Certificate course on ‘Climate Change and Air Quality: Control and Modelling’ from Centre for Environment, IIT Guwahati; (TEQIP Course, 4th-8th April, 2016).
8. Certificate course on ‘Changing Sanitation and Hygiene Behaviour for Public Health Risk Reduction’ from TERI University, New Delhi; (Summer School on 17th- 22nd August, 2017).
9. Certificate course on ‘Combining Hydrology and Hydro-Social: Towards Comprehensive Understanding of Riverine Systems’ from the department of Humanities and Social Sciences, IIT Kharagpur; (AICTE-QIP Course, 23th to 29th October, 2017).
10. Certificate course on ‘Climate Change Risk on Sustainable Development in Rural India: Fact, Friction, and Policy’ from IIT Kharagpur; (TEQIP-III Course, 17th – 19th July, 2018).
11. Certificate course on ‘Climate Change Adaptation on Water Resource’ from IIT Kharagpur (Global Initiative of Academic Network’s Course, 12th – 16th November, 2018).
12. Certificate course on ‘Learning, Analysis, Insights and Research Data’ from Indira Gandhi Institute of Development Research (IGIDR), Mumbai, India (Summer School, 2nd – 6 July 2019).

Paper presented at seminar and conference, and participation:

1. “Climatization of Human Vulnerability: Colonial Plantationocene, Visible Hunger, and Climate Change in Indian sub-Himalaya” at Annual Development Studies Association (DSA) Conference, at SOAS University of London, 26th to 28th June 2024.
2. Invited Lecture “Visible and Invisible Determinants of Climate Change Vulnerability in Rural India” at International online webinar on Contemporary Issues and the Role of Geography, organized by School of Pure and Applied Sciences, Midnapore City College, December 23rd, 2021.
3. “Livelihood and Climate Change Vulnerability in Indian sub-Himalaya: Spatial Patterns, Determinants, and Suitable Policies” at Annual Conference of Royal Geographical Society- Institute of British Geographer 31th Aug. to 03rd Sept., 2021.
4. Weekend Invited Lecture “Dooars in a Warming World: Vulnerability and Mitigation Policies to climate Change” Organized on Department of Geography Malda College, Malda and Research Forum of North Bengal, 24th June, 2021.

5. "Changing Livelihood and Cultural Adaptation of Rabha Community in North Khairbari Forest Village of Alipurduar District, West Bengal" paper presented at UGC-National Seminar, at Department of Geography, North Bengal University, 2th-03th, 2016.
6. "Regional Pattern of Rural Livelihood Opportunities and Capital in Sub-Himalayan West Bengal, India" paper presented at 12th World Congress of Regional Science Association International (RSAI) at held at BITS Pilani, Goa campus, India.
7. "Climate Change Vulnerability Index: A Practical Tool for Regional Planning and Development" paper presented at Autumn School on Big Data and Methods in Regional Science at Tata Institute of Social Science, Mumbai, 21-25 October 2019.
8. "Climate Change Vulnerability Index: A Practical Tool for Regional Planning and Development to Achieve Sustainability" paper presented at Young Scientist Conference of India International Science Festival, 2019 at Kolkata, 05-08th November 2019. (Poster Presentation).
9. International seminar on 'Environment, Public Health, GIS' organised by the Department of Geography, University of Burdwan on 26 August 2016.
10. All India student conference on 'Science and Spiritual Quest' by Bhakti Vedanta Society, Kolkata, 30th-01st November 2015.
11. Participated in "Rural Drinking Water Technology Hackathon-2019" by Design Innovation Centre, IIT Kharagpur, 13-14th March 2019.

Reviewer of Journals:

1. Space and Culture, India.
2. Disaster Medicine and Public Health Preparedness; Cambridge University Press.
3. Regional Science: Policy and Practices; Wiley.
4. Environment, Development, and Sustainability; Springer.
5. Geo-journal; Springer.
6. Environment and History, White Horse Press; JSTOR.
7. Journal of Historical Geography; Elsevier.

Life Member:

1. National Association of Geographers, India (NAGI LM-2472).
2. South Asian Network for Development and Environmental Economics.
3. Association for Nepal and Himalayan Studies (Member ID: 68509203).
4. Development Studies Association (SDA: M42791).
5. Indian Environmental Association.
6. Institute of Indian Geographers (IIG-2025-32).

Language Known: English (Fluent), Bengali (Native).

Key Technical Skills:

GIS Packages: ArcGIS.

Design & Animation Tools: Photoshop.

Statistical Software: R Studio, SPSS, STATA, Amos, IBM modular.

Fieldwork: GPS, Mobile Mapping, DGPS.

Qualitative Methods: FDGs and Questionnaire, Participatory Appraisal.

References:

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Dr. Gopa Samanta

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