

Cluster Innovation Centre



...Evolving Senses
Dissolving Boundaries...

संकुल
नवप्रवर्तन
केंद्र

FACULTY PROFILE

Title	Dr.	First Name	RAJESH KUMAR	Last Name	ABHAY	Photograph
Designation	Associate Professor in Geography					
Address	#117, First Floor, Rugby Sevens Building (University Stadium), GC Narang Road, University of Delhi, Delhi-110007					
Phone No. Office	011-27666706					
Residence	-					
Mobile	9968158456					
Email	rkabhay@cic.du.ac.in					
Web-Page	http://cic.du.ac.in/?People/Faculty-Members					
Educational Qualifications						
Degree		Institution			Year	
Ph.D.		Department of Geography, Delhi School of Economics, University of Delhi			2015	
M. Phil.		Department of Geography, Delhi School of Economics, University of Delhi			2009	
M.A. in Geography		Department of Geography, Delhi School of Economics, University of Delhi			2006	
B.A. (Hons) Geography		Department of Geography, Dr. B.R. Ambedkar College, University of Delhi			2003	
Career Profile						
Organisation/ Institution		Designation		Duration		Role
Cluster Innovation Centre (University of Delhi), Delhi-110007		Associate Professor		March 2026-Present		Teaching and Research
Dyal Singh College (University of Delhi), Lodhi Road, New Delhi-110003		Assistant Professor (On Lien)		2015-2026		Teaching and Research
Kalindi College (University of Delhi), East Patel Nagar, Delhi-110008		Assistant Professor (Ad-hoc)		2014-15		Teaching
Department of Geography, Delhi School of Economics, University of Delhi, Delhi-110 007		Assistant Professor (Ad-hoc)		2012-14		Teaching and Research
Kamala Nehru College (University of Delhi), August Kranti Marg, New Delhi- 110049.		Assistant Professor (Ad-hoc)		2009-12		Teaching
Shaheed Bhagat Singh College, (University of Delhi), Sheikh Sarai, Delhi-110 017		Assistant Professor (Ad-hoc)		2008-09		Teaching
Administrative Assignments						

• Nodal Officer, Samarth Portal, Dyal Singh College, University of Delhi, 2025-2026 • Teacher In-Charge, Department of Geography, Dyal Singh College, 2019-20, 2024-25 • Convener, Web Development Committee, Dyal Singh College, University of Delhi, 2022-23, 2023-24. • Convener, DSC-Sustainability Forum, Dyal Singh College, University of Delhi, 2022-23. 2023-24. 2024-25 • Nodal Officer (Open Book Exam), Dyal Singh College, Nov-Dec. 2021 to March-April 2022 • Convener, Geography Society, Department of Geography, Dyal Singh College, University of Delhi, 2020-21. • Member, IQAC, Dyal Singh College, University of Delhi, 2020-21. 2021-22, 2022-23, 2023-24. 2024-25, 2025-26 • Practical Coordinator, Dyal Singh College, University of Delhi, 2019-20. • Program Officer, NSS, Dyal Singh College, University of Delhi, 2018-19, 2019-2020. • Member, Garden Committee, Dyal Singh College, University of Delhi, 2025-26 • Member, Centre for IKS, Dyal Singh College, University of Delhi, 2025-26 • Coordinator, DSC & CHS MoU, Dyal Singh College, University of Delhi, 2025 Onwards	
Areas of Interest / Specialization	
• Natural Resource Management • Resource Sustainability and Resilience • Remote Sensing and GIS	
Subjects Taught	
At Under-Graduate Level • Urban Geography • Sustainable Resource Development • Contemporary Environmental Issues • Regional Planning and Development • Evolution of Geographical Thought • Resource Geography • Fundamentals of Remote Sensing (PR) • Fundamentals of GIS (PR)	At Post-Graduate Level • Regional Development in India • Urban Impacts on Natural Resources and Environment • Systematic Agricultural Geography • Hydrology and Water Resources Management • Techniques and Methods of Regional Analysis • Social Geography of India
Research Guidance	
• Kirtti Prabha: Measurement of Agricultural Sustainability for the Livelihood Security of Farmers in Mahendergarh District, Haryana, M.Phil. Dissertation (Awarded in May 2022). • Rikta Pal: The Impact of Anthropogenic Activities on the Rudrasagar Wetland of Tripura: A Management Perspective, Ph.D. Thesis (Ongoing from February 2021) • Shivam Chaurasiya: Evaluation of Built-up Expansion and Liveability for Regional Sustainability in Kanpur Nagar District, Uttar Pradesh, Ph.D. Thesis (Ongoing from 2023). • Neelu Kumari, Agricultural Resilience, Food Security, and Livelihood Sustainability in the Bhagalpur district of Bihar, Ph.D. Thesis (Ongoing from 2024).	
Publications Profile (From 1 st July 2021 onwards)	
BOOKS 2026 : Perspectives on Sustainable Development Goals: Science to Policy Framework-Cases and Lessons from India, Cham: Springer. (Co-Editor) 2025 : Emerging Geosustainability Transformation in India, Springer, Singapore. (Co-Editor) 2023 : Constraints in Achieving Sustainability of India, The Energy Research Institute (TERI) Press, New Delhi. (Lead Editor) 2021 : Resource Management, Sustainable Development and Governance: Indian and International Perspectives, Springer, Cham. (Co-Editor)	

2021 : Perspectives in Human Geography, Delhi: Concept Publications Company, ISBN: 978-03-88937-83-2, 294pp. (Co-Author)

RESEARCH PAPERS IN JOURNALS

2025 : “Bibliometric Review of Literature on Sustainable, Smart, and Green Cities”, Romanian Journal of the Geography (RjGEO), ISSN: 2285-9675, 69(2): 201-215. (Corresponding Author) (Scopus). http://www.rjgeo.ro/issues/revue_roumaine_69_2/Paul%20et%20al..pdf

2023 : “Hazard Assessment and Emerging Constraints for Disaster Risk Reduction in Higher Educational Institutions (HEIs) in Delhi”, Disaster and Development: Journal of the National Institute of Disaster Management, ISSN: 0973-6700, 12(2): 41-62. (Second Author) (UGC Care)

2023 : “Housing shortage in a mega city: a spatio-temporal analysis of NCT-Delhi, 2001–2011”, *GeoJournal*, ISSN: 1572-9893, <https://doi.org/10.1007/s10708-022-10597-5> (with M. Sharma)

2023 : Colonial imprints in contemporary urban livability: an inter-ward analysis of Kolkata. *GeoJournal*. <https://doi.org/10.1007/s10708-022-10606-7>. (with A. Chakraborty and M. Sharma)

2023: Out-of-school girls in India: a study of socioeconomic-spatial disparities, *GeoJournal*, ISSN: 1572-9893, <https://doi.org/10.1007/s10708-022-10579-7> (with S. Mitra and S. K. Mishra)

2022 : “Urban growth and quality of life: inter-district and intra-district analysis of housing in NCT-Delhi, 2001–2011–2020”, *GeoJournal*, ISSN: 1572-9893, <https://doi.org/10.1007/s10708-021-10570-8> (with M. Sharma)

2021 : “Intra-District variations and emerging concerns in agricultural development of Siddharthnagar District, Uttar Pradesh”, *The Indian Geographical Journal*, ISSN 0019-4824, 96(1): 1-14. (with Shweta Rani)

2021: “Regional dimensions of spatial variations in socio-economic development in Siddharthnagar district, Uttar Pradesh”, *Horizon: A Journal of Social Science*, 12(1): 105-121. (Co-author)

BOOK CHAPTERS

2026 : Evaluating the Progress of Studies in Natural Resources Management and Sustainability of India. In: Bajaj, A., Abhay, R.K., Kumar, K. (eds) Perspectives on Sustainable Development Goals. Sustainable Development Goals Series. Springer, Cham. https://doi.org/10.1007/978-3-032-11310-8_16 (with B. Thakur) (Corresponding Author)

2026 : Environmental Sustainability Practices of Select HEIs in India: An Empirical Study. In: Mor, R.S., Gupta, M., Sindhu, S., Chaudhary, S. (eds) Sustainable Business Management, Innovation and Technology. Sustainable Economy and Ecotechnology. Springer, Cham. https://doi.org/10.1007/978-3-031-98141-8_14. (With J Paul, RK Abhay, D Bhola, S Omar & Shreya) (Corresponding Author)

2025 : “Geosustainability Transformations in India: Introduction and Overview”. In: Anand, S. Nagarale, V., Abhay, R.K. (eds) Emerging Geosustainability Transformations in India. Springer, Singapore, 3-11. DOI: https://doi.org/10.1007/978-981-97-7993-2_1. (with S. Anand & V. Nagarale)

2025 : “Higher Education Institutions and Sustainable Practices in India. In: Anand, S., Nagarale, V., Abhay, R.K. (eds) Emerging Geosustainability Transformations in India. Springer, Singapore, 375-390. DOI: https://doi.org/10.1007/978-981-97-7993-2_21. (with J Paul & IK Kumawat), (Corresponding author).

2025 : “Geosustainability Transformations: Emerging Research Frontiers”. In: Anand, S., Nagarale, V., Abhay, R.K. (eds) Emerging Geosustainability Transformations in India. Advances in Geographical and Environmental Sciences. Springer, Singapore, 477-484. DOI: https://doi.org/10.1007/978-981-97-7993-2_27 (with S. Anand, V. Nagarale, & S. Chaurasiya) (Corresponding author)

2024 : "Assessing Land Susceptibility to Degradation and Sustainability Challenges for Siddharthnagar District, Uttar Pradesh", in S. Kanga, G. Meraj, S.K. Singh, M. Farooq and M.S. Nathawat (eds) Geospatial Technology for Natural Resource Management, Wiley: Scrivener Publishing, 393-412.

<https://doi.org/10.1002/9781394167494.ch16> (with S Rani and SK Saini, First and Corresponding Author)

2024 : Evaluating the Role of Indigenous Methods of Rainwater Harvesting for Water Sustainability of Local Ecosystems in India. In: S.C. Rai, P.K. Mishra (eds) Sacred Landscapes, Indigenous Knowledge, and Ethno-culture in Natural Resource Management: Understanding Multiple Perspectives of Nature Conservation. Springer, Singapore. https://doi.org/10.1007/978-981-97-4206-6_6

2024 : Assessment of Fire Disaster Risk Reduction in Higher Educational Institutions in Delhi. In: Sharma, V.R., Chandrakanta (eds) Making India Disaster Resilient. Springer, Cham. (With AS Prasad, BW Pandey and Priyanka) https://doi.org/10.1007/978-3-031-50113-5_12

2023 : “Introduction and overview”, in R.K. Abhay, D.N. Pandey and S. Rani (Eds.) Constraints in Achieving Sustainability of India. New Delhi: TERI Press, pp. 1-13 (Second Author).

2023 : “Sustainable Development: Concept, components and history”, in R.K. Abhay, D.N. Pandey and S. Rani (Eds.) Constraints in Achieving Sustainability of India. New Delhi: TERI Press, pp. 15-27. (First author).

2023 : “Principles and challenges of good governance in achieving sustainability of India”, in R.K. Abhay, D.N. Pandey and S. Rani (eds.) Constraints in Achieving Sustainability of India. New Delhi: TERI Press, pp. 251-260. (with Latambika Sapawat).

2023 : “Spatio-temporal Patterns of Covid-19: A District-level Analysis of Kerala, India, 2020-2021” in Esra Ozdenerol (Ed.) The Role of GIS in COVID-19 Management and Control, Boca Raton (Florida): CRC Press. 87-110.(with Madhuri Sharma and Shimod K.).

2021 : “Resource management, sustainable development and governance: Introduction and overview”, in B. Thakur, R.R. Thakur, S. Chattopadhyay and R.K. Abhay (eds) Resource Management, Sustainable Development and Governance: Indian and International Perspectives, ISBN: 978-3-030-85838-4, Switzerland AG: Springer Nature, 3-12 (Co-author).

2021 : “Bruce Mitchell: Professional Career and Contributions”, in B. Thakur, R.R. Thakur, S. Chattopadhyay and R.K. Abhay (eds) Resource Management, Sustainable Development and Governance: Indian and International Perspectives, ISBN: 978-3-030-85838-4, Switzerland AG: Springer Nature, 13-23. (Co-author)

2021 : “Land degradation and agricultural sustainability in Kendujhar district, Odisha”, in B. Thakur, R.R. Thakur, S. Chattopadhyay and R.K. Abhay (eds) Resource Management, Sustainable Development and Governance: Indian and International Perspectives, ISBN: 978-3-030-85838-4, Switzerland AG: Springer Nature, 365-376. (Co-author)

2021 : “Sustainable resource governance: Lessons for the future”, in B. Thakur, R.R. Thakur, S. Chattopadhyay and R.K. Abhay (eds) Resource Management, Sustainable Development and Governance: Indian and International Perspectives, ISBN: 978-3-030-85838-4, Switzerland AG: Springer Nature, 3-12. (Co-author)

BOOK CHAPTERS IN UNIVERSITY TEXTBOOK

2024: “Urban Economic Systems” in Block 3: Space Economy of Rural and Urban Systems with reference to India, for the Core Course on Economic Geography, to be offered in the M.Sc. Programme in Geography of IGNOU, MGG-006,195-208.

2021: “Solid and Liquid Waste” in Block 3: Environmental Problems and Management for the Core Course on Environmental Geography, to be offered in the B.Sc. Programme in Geography of IGNOU as per UGC-CBCS, BGGCT-135,149-162.

2021 : “Biodiversity Loss”, in Block 3: Environmental Problems and Management for the Core Course on Environmental Geography, to be offered in the B.Sc. Programme in Geography of IGNOU as per UGC-CBCS, BGGCT-135, 163-177.

Conference Organization/ Presentations (From 1st July 2021 onwards)

INVITED LECTURES AS RESOURCE PERSON

- 2025 : Delivered invited lecture on **“ICT in Geography Teaching: Enhancing Spatial Thinking”**, at Five-Days Continuous Professional Development Training Program organized by SCERT Delhi for PGT Geography of (DoE) at DIET Moti Bagh 29 May.
- 2024 : Delivered invited lecture on **“Spatial Information Technology (GIS, GPS)”**, at 3-Days Continuous Professional Development Training Program organized by SCERT Delhi for PGT Geography of (DoE) at DIET Moti Bagh 22 October.
- 2023 : Delivered invited two lectures on **“Application of Geographical Information System in Social Science Research”**, at Research Methodology Course in Social Sciences organised by Council for Social Development, Lodhi Estate, New Delhi, 17 April 2023.
- 2022 : Delivered invited talk on **“Appraisal of Urban Growth and Status of Housing Quality in NCT-Delhi”**, in the International Conference on Geoinformatics for Biodiversity Conservation Planning organised by Centre for Climate Change and Water Research, Suresh Gyan Vihar University, Jaipur on 14 October, 2022.
- 2022 : Delivered invited lecture on **“Agriculture & Sustainability of India”**, in the National Level Webinar on Contemporary Research Perspectives in Geography organised by South Asian Institute for Advanced Research and Development (SAIARD) on 19 June, 2022.
- 2021 : Delivered invited lecture on **“Resilience, Role of Farmers and Agricultural Sustainability”**, at One Day Multidisciplinary International e-Conference on Sustainable Development Goals & Development: Initiatives, Execution and Challenges organised by Gramin (ACS) Mahavidyalaya Vasantnagar Kotgyl, Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra, 10 June.
- 2021 : Delivered invited lecture on **“Doing Fieldwork in Geography”**, at One Week Online Workshop on 'Research Methodology in Social Sciences: Conceptual and Methodological Intervention', organised by Department of Geography, DDU Gorakhpur University, Uttar Pradesh, 30 June.

PAPER PRESENTED IN INTERNATIONAL CONFERENCES

1. Presented a paper on **“Assessment of Delhi Megacity’s Substandard Housing and Sustainability Concerns”**, at the **International Seminar** on “Integrating Geospatial Technologies for Promoting Sustainable Livelihoods, Cultural and Environmental Awakening: Pathways to Viksit Bharat-2047”, organized by Department of Geography, DDU Gorakhpur University, Gorakhpur, 7-8 March 2025.
2. Presented a paper on **“A Bibliometric Review of Smart Green and Sustainable Cities”**, at the **International Conference** on “Green Economy and Vertical Cities: Resilient Solutions for Sustainable Future”, organized by Department of Economics, Gargi College, University of Delhi, 1 March 2025.
3. Presented a paper on **“Environment Sustainability Practices of select HEIs in India: An Empirical Study”**, at the **International Conference** on “Sustainable Business Management Innovation and Technology”, organized by Department of Management, Maharaja Surajmal Institute (MSI), New Delhi, 20-21 February 2025.
4. Presented a paper on **“Evaluating Sustainable Practices in Higher Education Institutions of India”**, at the **International Seminar** on “Envisaging Bharat as Voice of Global South: Revisiting COP28”, organized by Department of Geography, Indraprastha College for Women, University of Delhi, 27-28 August 2024.
5. Presented a paper on **“Appraisal of Sustainable Practices in Higher Education Institutes for Promoting Quality Education”**, at the **International Seminar** on “Sustainable Development

Goals”, organized by Department of Economics, Dyal Singh College, University of Delhi, 26-27 February 2024.

6. Presented a paper on **“Analysis of substandard living households in census towns of Trans-Yamuna Delhi”**, at the **45th Indian Geography Congress, International Conference of NAGI** on “Environment, Development and Sustainability: The Exigency of Geography for a Resilient Future”, organized by Department of Geography, Savitribai Phule Pune University, Pune, 14-16 December 2023.
7. Presented a paper on **“Flood hazard zonation modeling using hybrid machine learning models of Balrampur: A district located on Indo-Nepal border”**, at the **45th Indian Geography Congress, International Conference of NAGI** on “Environment, Development and Sustainability: The Exigency of Geography for a Resilient Future”, organized by Department of Geography, Savitribai Phule Pune University, Pune, 14-16 December 2023.
8. Presented a paper on **“Constraints in achieving housing quality in urban areas of India: Case of Delhi mega city”**, at the **International Conference on ‘Sustainable Development’** organized in oral format in 6.Sustainable Cities: 6B. Future Challenges in the Urban Transition, 18-20 September 2023.
9. Presented a paper on **“Urbanization and housing quality in Delhi: A study of spatio-temporal disparities”**, at the **International Geographical Union Thematic International Conference** on “Sustainability, Future Earth and Humanities: Opportunities and Challenges”, organized by Department of Geography, Central University of Haryana, Mahendragarh, 24-25 November 2022.
10. Presented a paper on **“Landslides susceptibility investigations in the Kashmir Himalaya”**, at the **International Geographical Union Thematic International Conference** on “Sustainability, Future Earth and Humanities: Opportunities and Challenges”, organized by Department of Geography, Central University of Haryana, Mahendragarh, 24-25 November 2022.
11. Presented a paper on **“Spatio-temporal patterns of housing shortage in urban India: A case study of NCT-Delhi”**, at the **21st Association of Punjab Geographers International E-Conference 2021**, on Agriculture, Food Security, Health and Wellbeing organized by Department of Geography, Kurukshetra University, Kurukshetra, 30-31 December, 2021.

PAPER PRESENTED IN NATIONAL CONFERENCES

1. Presented a paper on **“A Methodological Investigation into the Sustainability of Indian Cities”**, at 47th Indian Geography Congress, Annual Conference of the *National Association of Geographers, India (NAGI)*, Department of Geography, University of Rajasthan, Jaipur, 13-15 November 2025.
2. Presented a paper on **“Exploring the Evolving Research Landscape surrounding Built-up Expansion, Liveability, and Sustainability through Bibliometric Analysis”**, at 47th Indian Geography Congress, Annual Conference of the *National Association of Geographers, India (NAGI)*, Department of Geography, University of Rajasthan, Jaipur, 13-15 November 2025.
3. Presented a paper on **“Exploring Level of Sustainable Practices in Higher Education Institutions of India”**, at the National Seminar on ‘*Economy and Environmental Sustainability in Mountains*’ organized by DD College, SDSU University, Dehradun, 10-11 January 2025.
4. Presented a paper on **“Indian Traditional Knowledge Systems for Managing Water Resources”**, at the National Seminar on ‘*Culture, Public Policy and Water Management*’ organized by *SuJalam*: Center for Resilient Water Management, Samskruti Foundation, in association with Special Centre for Disaster Research, Jawaharlal Nehru University, New Delhi, 24 Dec. 2024.

5. Presented a paper on “Built-up Expansion and Emerging Housing Challenges in Mega-Cities of India”, at the National Seminar on <i>‘Stress of Urban Expansion and Disasters in Uttarakhand’</i> organized by DD College, SDSU University, Dehradun, 5-6 January 2024. 6. Presented a paper on “Traditional Indian Knowledge System of Water Management Practices: A Sustainability Perspective”, at the National Seminar on <i>Locational Perspective of Evolution of Culture, Knowledge and Wisdom in India’</i> organized by Centre for the Study of Regional Development, Jawaharlal Nehru University, New Delhi, 3-4 November 2023. 7. Presented a paper on “Urbanization and Spatial Manifestation of Substandard Accommodations: A Study of Census Towns in Trans-Yamuna Delhi”, at Associates Seminar organized by Indian Institute of Advanced Study (IIAS), Rashtrapati Nivas, Shimla, 26 September 2023. 8. Presented a paper on “Urban expansion and housing quality in mega-cities of India: A Case Study of NCT-Delhi”, at Associates Seminar organized by Indian Institute of Advanced Study (IIAS), Rashtrapati Nivas, Shimla 27 September 2022. 9. Presented a paper on “Analysis of resilience of agricultural land using a factor analytic approach in Siddharthnagar district, Uttar Pradesh”, at the National Conference (Online) on <i>Population, Environment, Health, Sustainable Development Goals and Appropriate Technologies: Post Covid-19 Scenarios’</i> 43rd IGC-National Association of Geographers, India, organized by Department of Geography, Institute of Science, Banaras Hindu University, Varanasi, 28-30 October, 2021. 10. Presented a paper on “Land susceptibility to degradation and rural sustainability in Siddharthnagar district, Uttar Pradesh: A Multi-Criteria Analysis”, at the National Conference (Online) on <i>Climate Change and Pathways to Self-Reliant India: Opportunity and Challenges for Sustainable Development</i> organized by Department of Geography, Faculty of Natural Sciences, Jamia Millia Islamia, New Delhi, 15-16 March, 2021.
Research Projects (Major Grants/Research Collaboration) 2019-21: Agricultural Development, Land Degradation and Rural Sustainability in Border Areas of Uttar Pradesh: A Case Study of Siddharthnagar District, Sponsored by ICSSR under IMPRESS Scheme under domain Agriculture and Rural Development (Submitted in August 2021).
Awards, Fellowships and Distinctions (From 1st July 2021 onwards) Associate-ship at the Indian Institute of Advanced Study, Shimla under the UGC Inter-University Centre for Humanities and Social Sciences. Completed First Spell in Sept. 2022, 2023 and 2025
Association With Professional Bodies - Indian National Cartographic Association (INCA, Hyderabad), (Life Member: 2908) (Since 2018) - The Association of Punjab Geographers, (APG, Patiala), (Life Member: 437). (Since 2013) - World Wide Fund (WWF) Supporter, (ID-WWF-2013-00018). (2013-14) - Geographical Society of India (GSI, Calcutta), (Life Member: A/L-15). (Since 2012). - Institute of Indian Geographers (IIG, Pune), (Life Member: 813). (Since 2011). - The Association for Geographical Studies (AGS, Delhi), (Life Member: 187). (Since 2008). - National Association of Geographers, India (NAGI, Delhi), (Life Member: 1670). Since 2007)
Other Activities like MOOCs/ Patents etc. (From 1st July 2021 onwards) Reviewer of Journal: Discover Global Society, Spatial Demography, Water Resource Management, Springer, Geography, Environment and Sustainability, Science of the Total Environment

- **Students Internship (2024)** Mentored Students for a Paper on 'Multifunctionality of Green Spaces in Delhi', organized under SRIP-2024, Dyal Singh College, University of Delhi (3 Students).
- **Students Internship (2025)** Mentored Students (Internship) for a Paper on 'Mapping Green Spaces in Urban Land Use using Object-Based Image Analysis: A Case study of Delhi', organized under SRIP-2025, Dyal Singh College, University of Delhi. (4 Students)

Dr. R.K. Abhay

Signature of Faculty Member