

Dr Mery Biswas

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Assistant Professor

Department of Geography, Presidency University

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Summary

Worked on several aspects/methods of morphotectonics and fluvial geomorphology (field-based, Instrumental survey techniques and analytical models, micro landforms etc.). Concerned positively on field-based and commonly transcend the boundaries of classical disciplines, bridging across tectonics, earth surface processes, watershed analysis, landscape changes and hydro-sediment interaction. Worked on both riverscape dynamics and hazardous issues. My future research is based on applied sub-disciplines of tectonics and fluvial landscape, sediment ecology and buffer geoscape pattern. Interested in discussion of interlinking between riverscape with constructions, riverine water-sediment health and adjoining landscape suitability.

Experience (total work experience 17years)

Administrative

06/2013 to 03/2023

- Programme Officer, Unit - II, National Service Scheme (NSS) cell Presidency University (2017 onwards)
- Committee member of "Equal opportunity cell", Presidency University
- Coordinator of Departmental committee as Department of Science & Technology - Fund for Improvement of S&T Infrastructure (DST – FIST) Programme
- Departmental under graduate board examination board member
- Member of Board of studies (BOS)
- Engaged as examination coordinator and module convener
- Research Advisory Committee (RAC) board member of PhD committee

Academic

- Assistant Professor in Geography, Presidency University, Kolkata (June 11, 2013)
- Convener of the National Seminar on "Negotiating Nature, Culture and the Future" "February 28th-March 1st, 2019
- Guest lecturer in Vairab Ganguli College, East Calcutta Girls College (one Semester, 2015)
- Guest lecturer in East Calcutta Girls College (two Semesters, 2016)

07/2009 to 06/2013

- Acted as Head of the Department of Geography at Baruipur College, Calcutta University 2006 -2013, June 10).
- Member of Academic Committee, Internal Quality Assurance Cell (IQAC) and Sports Committee.
- Guest lecturer in Mysore University, Kolkata Branch (2007-2008)
Rabindra Bharati University (open) (2008),
Vidyasagar University (Regular) (2009-2014).

Highlights

- Academic work oriented
- Student skill development
- Effective lecture
- Organizational capacity
- Field management

Education

- **B.A:** Lady Barourne College, Calcutta University
- **M.A:** Department of Geography, University of Calcutta
- **Ph.D :** University of Calcutta
In Applied Geomorphology

Contact

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Researchgate:

https://www.researchgate.net/profile/Mery_Biswas

Research

- Published 34 research papers in different National and International Journals from 2013, June.
- Worked in 3 projects as a Project Consultant group member with Indian Institute of Social Welfare and Business Management (ISBWBM), Kolkata. 2018-2019 on “Extension of Thermal Power Plant in Riverine area”. Hydrological survey executed near Sahibgang, Gondia.
- DST-SERB Project (ongoing): ***Effect of Bridge construction on the Himalayan Foothill Rivers: Hydro-morphology and hazards, Darjeeling-Jalpaiguri District, West Bengal.*** January, 2021-2024.

- **Reviewer:**

Journal of Arabian Geoscience

Journal of Asian Earth Sciences

Earth Surface Processes and Landforms

Journal of Carbon Capture Science and Technology

Geological Journal

Himalayan Geology

Geological Journal

Journal of Environmental Economics and Management

Applied Water Science

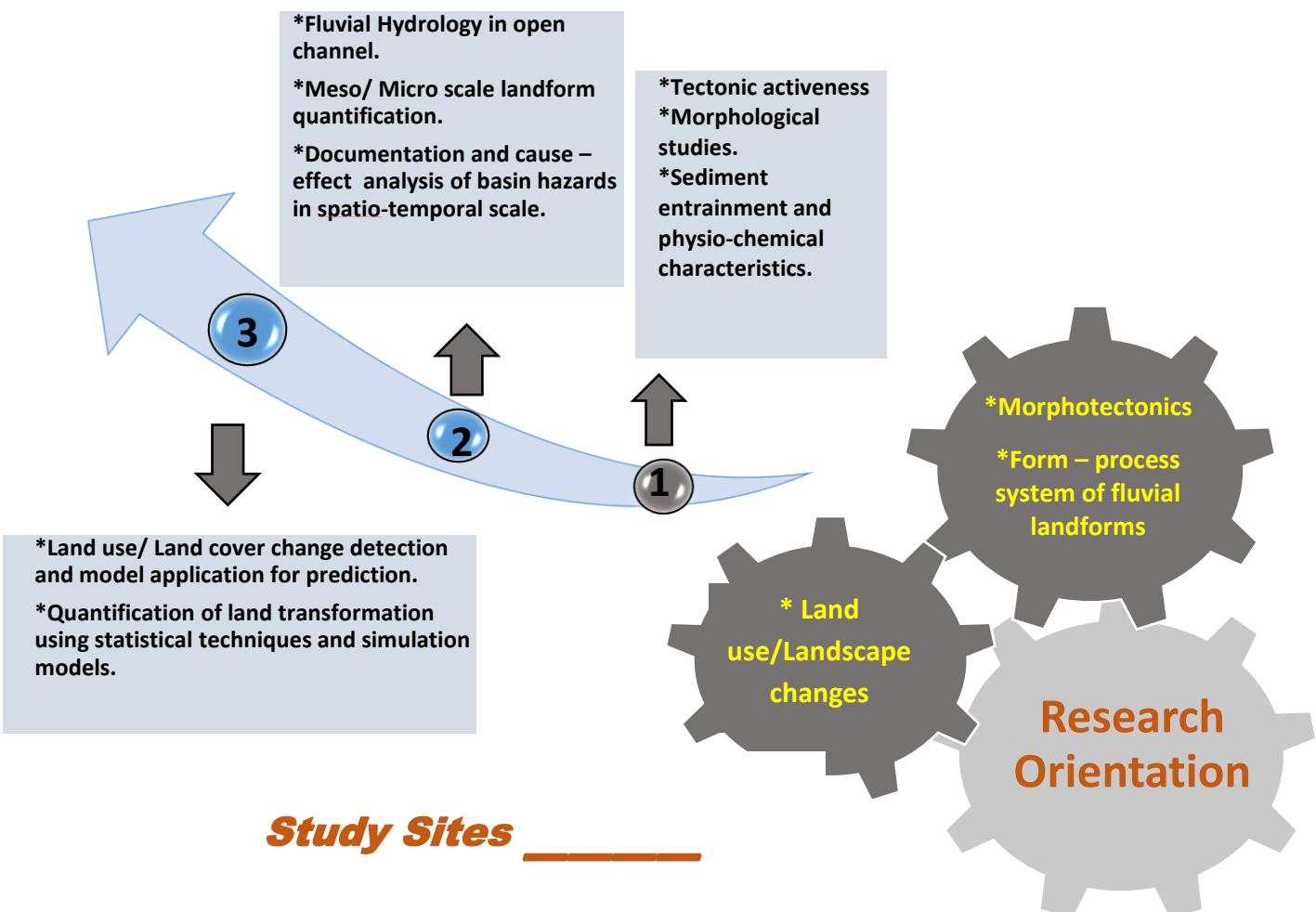
Geo Journal

Indian journal of Remote Sensing,

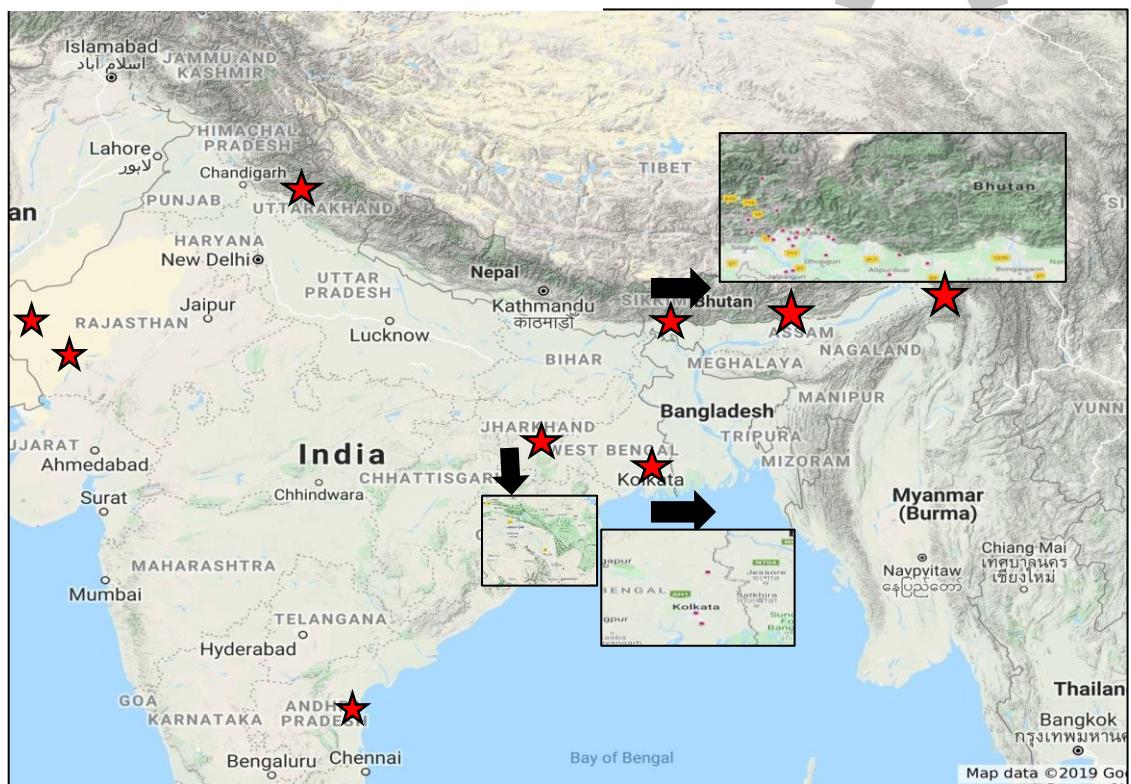
Physical Geography

Geological Magazine

Research area



Study Sites



Publications

06/2013 to 03/2023

33. Raha, A., Gupta, S., & **Biswas, M.** (2023). Flood Risk Assessment of Himalayan Foothill Rivers: A Study of Jaldhaka River, India. In: Islam, A et al. (eds) Floods in the Ganga–Brahmaputra–Meghna Delta. Springer Geography. pp. 63-90. ISBN (e) 978-3-031-21086-0. <https://doi.org/10.1007/978-3-031-21086-0>.
32. Puniya, M.K., Kaushik, A.K., Mukherjee, S., Dasgupta, S., Kar N.K., **Biswas, M.**, Choudhary, R. (2023). New Structural Geological Input from the Barmer Basin, Rajasthan (India). In: Mukherjee S (Ed) Structural Geology and Tectonics Field Guidebook—Volume 2. Springer Geology. pp. 285-296. ISBN (e) ISBN 978-3-031-19576-1. https://doi.org/10.1007/978-3-031-19576-1_9.
31. Puniya, M.K., Kaushik, A.K., Mukherjee, S., Kar, N.R., **Biswas, M.**, Choudhary, R. (2023). Structural Geology and Stability Issue of the Giral Lignite Mine, Rajasthan, India. In: Mukherjee S (Ed) Structural Geology and Tectonics Field Guidebook—Volume 2. Springer Geology. pp. 297-310. ISBN (e) ISBN 978-3-031-19576-1. https://doi.org/10.1007/978-3-031-19576-1_10.
30. Haldar, P., Puniya, M.K., **Biswas, M.**, Mukherjee, S., Kar, N.R., Choudhary, R. (2023). Architecture and structures of Kiradu temple (Barmer region, Rajasthan, India). In: Mukherjee S (Ed) Structural Geology and Tectonics Field Guidebook—Volume 2. Springer Geology. pp. 359-418. ISBN (e) ISBN 978-3-031-19576-1. https://doi.org/10.1007/978-3-031-19576-1_14.
29. Gupta, S., & **Biswas, M.** (2022). Geodynamic Quantification of Mid-Channel Bar Morphology. In: Misra, A and Mukherjee, S. (eds) A Spatio-Temporal Study. Atlas of Structural Geological and Geomorphological Interpretation of Remote Sensing Images, ISBN (e) 9781119813392. <https://doi.org/10.1002/9781119813392.ch3>.
28. Ali, M.P., **Biswas, M.**, Clemente-Orta, G., Kabir, M.M.M., Datta, J., Haque, S.S., Qin, X., Landis, D., Kaur, P., Pittendrigh, B.R and Howlader, M.T.H. (2022). Landscape diversity influences the arthropod species diversity in the rice field. *Frontiers in Environmental Science*. 10, 1-15. DOI: 10.3389/fenvs.2022.740287.
27. **Biswas, M.**, & Raha, A. (2022). An overview of open channel monsoon hydraulics of Himalayan foothill rivers, West Bengal, India. *Modeling Earth Systems and Environment*, 1-11. DOI: 10.1007/s40808-022-01481-9.
26. Gupta, S., & **Biswas, M.** (2022). Seismo-tectonic and morphological study of the north-east Himalaya. *Geosciences Journal*, 27,1-21. DOI: 10.1007/s12303-022-0016-z.
25. Raha, A., & **Biswas, M.** (2022). Quaternary alluvial fan dynamics of the Jaldhaka basin. *Journal of Mountain Science*, 19, 2160-2179. <https://doi.org/10.1007/s11629-021-7005-y>.
24. Raha, A., **Biswas, M.** (2022). Himalayan Foredeep Neotectonics and Deformed Riverscape Landforms:An Integrated Discussion, West Bengal, India.In: H. N. Bhattacharya et al. (eds.) Himalayan Neotectonics and Channel Evolution. Springer International Publishing. pp. 289-313. ISBN (e) 978-3-030-95435-2.
23. **Biswas, M.**, Puniya, M. K., Gogoi, M. P., Dasgupta, S., Mukherjee, S., & Kar, N. R. (2022). Morphotectonic analysis of petrolierous Barmer rift basin (Rajasthan, India). *Journal of Earth System Science*, 131, 140. <https://doi.org/10.1007/s12040-022-01871-8>.
22. **Biswas, M.**, Gogoi, M. P., Mondal, B., Sivasankar, T., Mukherjee, S., & Dasgupta, S. (2022). Geomorphic assessment of active tectonics in Jaisalmer basin (western Rajasthan, India). *Geocarto International*, 1-32.DOI:10.1080/10106049.2022.2066726
21. Kar, N.R., Mani, D., Mukherjee, S., Dasgupta, S., Puniya, M.K., Kaushik, A.K., **Biswas, M.** and Babu, E.V.S.S.K. (2022). Source rock properties and kerogen decomposition kinetics of Eocene shales from petrolierous Barmer basin, western Rajasthan, India. *Journal of Natural Gas Science and Engineering*, 100, 104497. <https://doi.org/10.1016/j.jngse.2022.104497>.
20. Dasgupta, S., **Biswas, M.**, Mukherjee, S., & Chatterjee, R. (2022). Structural evolution and sediment depositional system along the transform margin-Palar–Pennar basin, Indian east coast. *Journal of Petroleum Science and Engineering*, 211, 110155. <https://doi.org/10.1016/j.petrol.2022.110155>.
19. Banerjee, P., & **Biswas, M.** (2021). Application of habitat modification score and fluvial functioning index in discussion of eco-hydrological behavior and flood risk zonation of Himalayan foothill rivers, West Bengal, India. *Acta Geophysica*, 69, 877-893.. DOI: 10.1007/s11600-021-00570-0.
18. **Biswas, M.**, Paul, A., Jamal, Mostafa. (2020). Tectonic Vicinity and Channel Morpho-Hydrology - A Quantitative Discussion Based on Secondary Data and Field investigation. In: S. Mukherjee (ed.), Structural Geology and Tectonics Field Guidebook—Volume 1, Springer Geology. pp 461-494. ISBN (e) 978-3-030-60143-0.
17. **Biswas, M.**, & Paul, A. (2021). Application of geomorphic indices to Address the foreland Himalayan tectonics and landform deformation-Matiali-Chalsa-Baradighi recess, West Bengal, India. *Quaternary International*, 585, 3-14. DOI: 10.1016/j.quaint.2020.12.012.
16. **Biswas, M.**, & Dhara, P. (2019). Evolutionary characteristics of meander cut-off—A hydro-morphological study of the Jalangi River, West Bengal, India. *Arabian Journal of Geosciences*, 12, 1-21. <https://doi.org/10.1007/s12517-019-4711-7>.
15. Paul, A., & **Biswas, M.** (2019). Changes in river bed terrain and its impact on flood propagation – a case study of River Jayanti, West Bengal, India. *Geomatics Natural Hazards and Risk*, 10, 1928-1947.
14. **Biswas, M.**, Banerji, S., & Mitra, D. (2020). Land-use–land-cover change detection and application of Markov model: A case study of Eastern part of Kolkata. *Environment, Development and Sustainability*, 22, 4341-4360. DOI :10.1007/s10668-019-00387-4.

12. **Biswas, M.**, & Banerjee, P. (2018). Bridge construction and river channel morphology—A comprehensive study of flow behavior and sediment size alteration of the River Chel, India. *Arabian Journal of Geosciences*, 11, 1-23.<https://doi.org/10.1007/s12517-018-3789-7>.
12. Banerji, S., **Biswas, M.**, & Mitra, D. (2020). Semi-quantitative analysis of land use homogeneity and spatial distribution of individual ecological footprint in selected areas of Eastern fringes of Kolkata, West Bengal. *Geocarto International*, 35, 78-92. <https://doi.org/10.1080/10106049.2018.1506508>.
11. Ayaz, S., **Biswas, M.**, & Dhali, M. K. (2018). Morphotectonic analysis of alluvial fan dynamics: comparative study in spatio-temporal scale of Himalayan foothill, India. *Arabian Journal of Geosciences*, 11, 1-16. <https://doi.org/10.1007/s12517-017-3308-2>.
10. Dhali, M. K., & **Biswas, M.** (2019). MCA on mechanism of river bed potholes growth: a study of middle Subarnarekha River basin, South East Asia. *Environment, Development and Sustainability*, 21, 935-959. <https://doi.org/10.1007/s10668-017-0069-8>.
9. Dhali, Md., K., **Biswas, M.** (2017). Geo-hydrological response to pothole formation: a quantitative study of Kharsoti River India. *Modeling Earth System and Environment*, 3:32. DOI 10.1007/s40808-017-0280-5.
8. **Biswas, M.**, Mandal, BU., Bhattacharaya, S. (2016). Application of ‘Clue Model’ for Analysis and Quantification of Changing Land Use Pattern- A Case Study of Kankuram Basin, Ghatshila. *International Journal of Scientific & Engineering Research*, 7, . ISSN 2229-5518.
7. **Biswas, M.**, & Biswas, A. (2015). GIS based semi-quantitative morphological analysis of Kankuram Basin, Ghatsila. *International Research Journal of Natural and Applied Sciences*, 2, 79-114.
6. Biswas, A., & **Biswas, M.** (2015). Morphometric and landuse and land cover change analysis of Lokjuriya River Basin, Jharkhand, India using remote sensing and GIS technique. *IOSR Journal Of Humanities And Social Science*, 20, 77-85. ISSN: (e) 2279-0837.
5. Das, S., Dhali, M. K., & **Biswas, M.** (2015). Impact of the metro extension over Tolly Nullah on socio-economic behavioural changes—A case study between Tollygunge and Kavi Subhas Metro station, Kolkata. *Journal of International Academic Research for Multidisciplinary*, 3, 145-160. ISSN: 2320-5083.
4. **Biswas, M.** (2015): Geomorphology and Neotectonic Landform Deformation -An Analytical View of North Bengal Foothills, West Bengal, India, GSTF Journal of Geological and Earth Science- Singapore, 2, 34-44. DOI: 10.5176/2335-6774_2.1.22.
3. **Biswas, M.**, & Biswas, A. (2014). Impact of feeder canal on channel morphology a case study between Guptipara and Payradanga, West Bengal, India. *International Journal of Advanced Information Science and Technology*, 3, 153-162. ISSN (e) 2319 – 2682
2. **Biswas, M.** (2014). River Dynamism and Quasi-Natural Disaster of Kedernath Area, Uttarakhand. *International Journal of Advancement in Research and Technology*, 3, 9-17. ISSN (e) 2278-7763.
1. **Biswas, M.** (2014). Development of Alluvial fans and associated Land use problems of Himalayan Foot Hills, West Bengal. *International Journal of Engineering and Science*, 4, 25-35.
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