Priyanka Banerjee

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Divecha Centre for Climate Change
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EDUCATION

CSIR-National Institute of Oceanography, Goa, India
Ph.D., Marine Sciences, November 2015
Dissertation: "Spatio-temporal variability of mineral dust over the Arabian Sea and its impact on primary production"

University of Calcutta, Calcutta, India
Master of Science, Geography, 2010
Bachelor of Science, Geography, 2008

ACADEMIC EXPERIENCE

Divecha Centre for Climate Change, Indian Institute of Science
DST INSPIRE Faculty Fellow, April 2019-present

Centre for Atmospheric and Oceanic Sciences, Indian Institute of Science
Project Scientist, May 2016-March 2019.

RESEARCH AREAS: Atmospheric aerosols, Ocean biogeochemistry, Earth system modelling

GRANTS

1. Principal Investigator in "Constraining **DU**st **CY**cle and its **CL**imate implications over the northern **I**ndian **O**cean **(DUCYCLIO)**" funded by Department of Science & Technology, Government of India (2019).
2. Principal Investigator in "**I**ce **C**or**E** Records of Asian **DUST** variability (**ICEDUST**)" funded by Ministry of Earth Sciences, Government of India (2022).
3. Co-Principal Investigator in "Trace metal and isotope studies of South Asian aerosols" funded by Imperial-Indian Institute of Science Innovative Research and Education Fund (2022).

JOURNAL PUBLICATIONS

1. **Banerjee, P**. (2023). Importance of multiple sources of iron for the upper ocean biogeochemistry over the northern Indian Ocean, Biogeosciences, 20, 2613–2643, 2023, https://doi.org/10.5194/bg-20-2613-2023
2. **Banerjee, P**., S. K. Satheesh, & K. K. Moorthy (2021). Is the Atlantic Ocean driving the recent variability in South Asian dust?. Atmospheric Chemistry and Physics, 21, 17665–17685. https://doi.org/10.5194/acp-21-17665-2021
3. **Banerjee, P**., S. K. Satheesh, & K. K. Moorthy (2021). The unusual severe dust storm of May 2018 over Northern India: Genesis, propagation, and associated conditions. Journal of Geophysical Research: Atmospheres, 126, e2020JD032369. https://doi.org/10.1029/2020JD032369
4. **Banerjee, P**., S. K. Satheesh, K. K. Moorthy, R. S. Nanjundiah, & V. S. Nair (2019). Long-range transport of mineral dust to the northeast Indian Ocean: Regional versus remote sources and the implications. Journal of Climate, 32, 1525–1549. https://doi.org/10.1175/JCLI-D-18-0403.1
5. Narvekar, J., J. R. D'Mello, S. P. Kumar, **P. Banerjee**, V. Sharma, & P. Shenai-Tirodkar (2017). Winter-time variability of the eastern Arabian Sea: A comparison between 2003 and 2013. Geophysical Research Letters, 44, 6269–6277. https://doi.org/10.1002/2017gl072965

6. Singh, A., et al. (2016). Perspectives on future Indian Ocean research from early career scientists. Current Science, 111 (11), 1741–1742.
7. **Banerjee, P**., & S. P. Kumar (2016). ENSO modulation of interannual variability of dust aerosols over the northwest Indian Ocean. Journal of Climate, 29(4), 1287–1303. https://doi.org/10.1175/JCLI-D-15-0039.1
8. **Banerjee, P**., & S. P. Kumar (2014). Dust-induced episodic phytoplankton blooms in the Arabian Sea during winter monsoon. Journal of Geophysical Research: Oceans, 119, 7123–7138. https://doi.org/10.1002/2014JC010304

MANUSCRIPT UNDER PREPARATION

1. **Banerjee, P**., S. K. Satheesh, and K. K. Moorthy (2023). Tracing the variability of dust over South Asia
2. **Banerjee, P**. (2023). Variable role of particulate iron on upper ocean nutrient availability

OTHER PUBLICATIONS

1. **Banerjee, P**., et al. (2020). "Air Pollution- Clean Air and Energy in South Asia", Chapter in Tackling Food Insecurity, Air Pollution, Water Insecurity and Associated Health Risks in South Asia: A Future Earth Working Document.
2. Prasanna Kumar, S., N. Ramaiah & R. A. Sreepada (2015). Ecosystem Characterisation of Indian Coast with special focus on West Coast, CSIR-NIO, Goa, India, BOBLME Thematic Report, BOBLME-2015-Ecology-17. (Contributing author).
3. **Banerjee, P**., and S. Prasanna Kumar (2014). Dust depositions leading to phytoplankton blooms in the Arabian Sea, SOLAS Newsletter, 16, 13-14.

PEER REVIEWS: Aeolian Research, Atmospheric Chemistry and Physics, Atmospheric Environment, Atmospheric Research, Current Science, Geophysical Research Letters, Journal of Geophysical Research, Meteorological Applications, Nature Communications, Scientific Reports.

PROFESSIONAL EXPERIENCE

1. Participated in 4 multidisciplinary oceanographic cruises (total 131 cruise days) to study bio-physical couplings in the equatorial Indian Ocean, the Arabian Sea, and the Bay of Bengal.
2. Involved in planning, setting up and maintaining continuous aerosol monitoring stations in 4 locations across India (Bangalore, Bhubaneshwar, Port Blair, Thiruvananthapuram) and Hanimaadhoo, Maldives to study trace metal fluxes to ocean.

DEPARTMENTAL ACTIVITIES: Member of Ph.D. Admissions Committee, Divecha Centre for Climate Change, Indian Institute of Science; Instructor at training programme on aerosol modelling at Indian Institute of Science, 2022; Advising 2 project interns and 5 project associates; Advisor on air pollution for Future Earth South Asia.

AWARDS: Highest GPA award in Master of Science in Geography, 2010; Junior Research Fellowship in Earth Science from Council of Scientific and Industrial Research (CSIR), Government of India, 2010; CSIR-National Institute of Oceanography best student paper award for "Dust-induced episodic phytoplankton blooms in the Arabian Sea during winter monsoon", 2015.

CONFERENCES ATTENDED: Pan Ocean Remote Sensing Conference (PORSEC), 2012; SOLAS Summer School, 2013; International Indian Ocean Expedition-2 IIOE-2) - International Symposium on the Indian Ocean, 2015; The World Academy of Sciences, 2016; European Geophysical Union 2018, 2021, 2023.