

# References

- Adam, P. (1993). *Saltmarsh Ecology*. Cambridge University Press.
- Agardy, T. and Dayton, P. (2005). Coastal systems. In *Ecosystems and Human Well-Being: Current State and Trends*. Island Press.
- Ahmed, N., Thompson, S., and Glaser, M. (2018). Integrated mangrove-shrimp cultivation: Potential for blue carbon sequestration. *Ambio*, 47(4):441–452.
- Akhand, A., Mukhopadhyay, A., Chanda, A., Mukherjee, S., Das, A., Das, S., Hazra, S., Mitra, D., Choudhury, S., and Rao, K. (2017). Potential CO<sub>2</sub> emission due to loss of above ground biomass from the Indian Sundarban mangroves during the last four decades. *Journal of the Indian Society of Remote Sensing*, 45(1):147–154.
- Alam, F., Hassan, K. M., Bhoumick, S., and Saha, P. (2016). The impact of climate change in Sundarban and its catastrophic effect. In *Proceedings of the 3rd International Conference on Civil Engineering for Sustainable Development (ICCESD 2016), 12 14 February 2016*. KUET, Khulna, Bangladesh.
- Alam, M., Alam, M. M., Curray, J. R., Chowdhury, M. L. R., and Gani, M. R. (2003). An overview of the sedimentary geology of the Bengal Basin in relation to the regional tectonic framework and basin-fill history. *Sedimentary Geology*, 155(3-4):179–208.
- Alam, S., Hossain, M. L., Foysal, M. A., and Misbahuzzaman, K. (2014). Growth performance of mangrove species in Chakaria Sundarban. *Int. J. Ecos*, 4:233–238.
- Ali, S. A., Khatun, R., Ahmad, A., and Ahmad, S. N. (2020). Assessment of cyclone vulnerability, hazard evaluation and mitigation capacity for analyzing cyclone risk using GIS

- technique: a study on Sundarban Biosphere Reserve, India. *Earth Systems and Environment*, 4(1):71–92.
- Allison, M. A., Khan, S., Goodbred Jr, S. L., and Kuehl, S. A. (2003). Stratigraphic evolution of the late Holocene Ganges–Brahmaputra lower delta plain. *Sedimentary Geology*, 155(3–4):317–342.
- Alongi, D. M. (2002). Present state and future of the world's mangrove forests. *Environmental conservation*, 29(3):331–349.
- Alongi, D. M. (2011). Carbon payments for mangrove conservation: ecosystem constraints and uncertainties of sequestration potential. *Environmental science & policy*, 14(4):462–470.
- Alongi, D. M. (2014). Carbon cycling and storage in mangrove forests. *Annual review of marine science*, 6:195–219.
- Alongi, D. M. (2015). The impact of climate change on mangrove forests. *Current Climate Change Reports*, 1(1):30–39.
- Amin, M. R. (2018). Sustainable tourism development in Sundarbans, Bangladesh (a World Heritage Site): issues and actions. *Journal of Business Studies*, 39(2):31–52.
- Anthony, E. J. and Héquette, A. (2007). The grain-size characterisation of coastal sand from the Somme estuary to Belgium: Sediment sorting processes and mixing in a tide-and storm-dominated setting. *Sedimentary Geology*, 202(3):369–382.
- Atwood, T. B., Connolly, R. M., Almahasheer, H., Carnell, P. E., Duarte, C. M., Lewis, C. J. E., Irigoien, X., Kelleway, J. J., Lavery, P. S., Macreadie, P. I., Serrano, O., Sanders, C. J., Santos, I., Steven, A. D. L., and Lovelock, C. E. (2017). Global patterns in mangrove soil carbon stocks and losses. *Nature Climate Change*, 7(7):523–528.
- Aysha, A., Abu Hena, M., Mishra, M., Nesarul, M., Padhi, B., Mishra, S., Islam, M., Idris, M., and Masum, M. (2015). Sediment and carbon accumulation in sub-tropical salt marsh and mangrove habitats of north-eastern coast of Bay of Bengal, Indian Ocean. *International Journal of Fisheries and Aquatic Studies*, 2(4):184–189.
- Aziz, A. and Paul, A. R. (2015). Bangladesh Sundarbans: present status of the environment and biota. *Diversity*, 7(3):242–269.

- Bádenas, B., Aurell, M., and Gasca, J. M. (2018). Facies model of a mixed clastic–carbonate, wave-dominated open-coast tidal flat (Tithonian–Berriasian, north-east Spain). *Sedimentology*, 65(5):1631–1666.
- Balaguru, K., Taraphdar, S., Leung, L. R., and Foltz, G. R. (2014). Increase in the intensity of postmonsoon Bay of Bengal tropical cyclones. *Geophysical Research Letters*, 41(10):3594–3601.
- Bandyopadhyay, J., Mondal, I., and Roy, B. (2014). Change detection of land use and land cover and identification of inter-relationship between geomorphology and land use land cover in and around Bakkhali–Fraserganj and Henry island, South 24 Parganas, West Bengal, India. *International Journal of Remote Sensing and Geoscience*, 3(2):44–51.
- Bandyopadhyay, S. (2019). Sundarban: A review of evolution & geomorphology. Technical report, World Bank Group.
- Banerjee, A. (1998). *Environment, population, and human settlements of Sundarban Delta*. Concept Publishing Company.
- Banerjee, K., Gatti, R. C., and Mitra, A. (2017). Climate change-induced salinity variation impacts on a stenoecious mangrove species in the Indian Sundarbans. *Ambio*, 46(4):492–499.
- Banerjee, K., Sengupta, K., Raha, A., and Mitra, A. (2013). Salinity based allometric equations for biomass estimation of Sundarban mangroves. *Biomass and Bioenergy*, 56:382–391.
- Barik, J., Mukhopadhyay, A., Ghosh, T., Mukhopadhyay, S. K., Chowdhury, S. M., and Hazra, S. (2018). Mangrove species distribution and water salinity: an indicator species approach to Sundarban. *Journal of Coastal Conservation*, 22(2):361–368.
- Barnett, J. and Campbell, J. (2010). *Climate change and small island states: power, knowledge and the South Pacific*. Earthscan.
- Begam, M. M., Sutradhar, T., Chowdhury, R., Mukherjee, C., Basak, S. K., and Ray, K. (2017). Native salt-tolerant grass species for habitat restoration, their acclimation and contribution to improving edaphic conditions: a study from a degraded mangrove in the Indian Sundarbans. *Hydrobiologia*, 803(1):373–387.

- Benjamini, Y. and Hochberg, Y. (1995). Controlling the false discovery rate: a practical and powerful approach to multiple testing. *Journal of the Royal statistical society: series B (Methodological)*, 57(1):289–300.
- Bhadra, T., Das, S., Hazra, S., and Barman, B. C. (2018). Assessing the demand, availability and accessibility of potable water in Indian Sundarban Biosphere Reserve area. *International Journal of Recent Scientific Research*, 9(3):25437—25443.
- Bhadra, T., Mukhopadhyay, A., and Hazra, S. (2017). Identification of river discontinuity using geo-informatics to improve freshwater flow and ecosystem services in Indian Sundarban Delta. In Hazra, S., Mukhopadhyay, A., Ghosh, A. R., Mitra, D., and Dadhwal, V. K., editors, *Environment and earth observation*, pages 137–152. Springer.
- Bhattacharjee, D., Samanta, B., Danda, A., and Bhadury, P. (2013). Impact of climate change in the Sundarban aquatic ecosystems: Phytoplankton as proxies. In *Climate Change and Island and Coastal Vulnerability*, pages 126–140. Springer.
- Bhattacharya, A. K., Bhattacharya, A., Sarkar, S. K., and Chatterjee, M. (2012). Bengal Basin, sediment sink. In Bengtsson, L., Herschy, R. W., and Fairbridge, R. W., editors, *Encyclopedia of Lakes and Reservoirs*, pages 113–117. Springer, Dordrecht, Netherlands.
- Boon III, J. D. and Byrne, R. J. (1981). On basin hyposmetry and the morphodynamic response of coastal inlet systems. *Marine Geology*, 40(1-2):27–48.
- Bosire, J. O., Dahdouh-Guebas, F., Kairo, J. G., and Koedam, N. (2003). Colonization of non-planted mangrove species into restored mangrove stands in Gazi Bay, Kenya. *Aquatic Botany*, 76(4):267–279.
- Bosire, J. O., Dahdouh-Guebas, F., Walton, M., Crona, B. I., Lewis Iii, R., Field, C., Kairo, J. G., and Koedam, N. (2008). Functionality of restored mangroves: a review. *Aquatic Botany*, 89(2):251–259.
- Brahma, G. and Mukherjee, S. K. (2016). Studies on mangrove diversity of India with special reference to Lothian Island Wildlife Sanctuary. *Plant Science Today*, 3(1):25–29.
- Broadus, J. M. (1993). Possible impacts of, and adjustments to, sea-level rise: the case of Bangladesh and Egypt. In *Climate and Sea Level Change: Observations, Projections and Implications*, pages 263–275. Cambridge University Press.

- Cahoon, D. R., Hensel, P. F., Spencer, T., Reed, D. J., McKee, K. L., and Saintilan, N. (2006). Coastal wetland vulnerability to relative sea-level rise: wetland elevation trends and process controls. In Verhoeven, J. T. A., Beltman, B., Bobbink, R., and Whigham, D. F., editors, *Wetlands and natural resource management*, pages 271–292. Springer.
- Carter, R. W. G. and Woodroffe, C. D. (1994). Coastal evolution: Late Quaternary shoreline morphodynamics.
- Chakraborty, P. B. and Mandai, A. P. N. (2008). Rainfall characteristics of Sagar Island in Sundarban, West Bengal. *Indian journal of soil conservation*, 36(3):125–128.
- Chakraborty, S. K., Dutta, S. M., Ghosh, P. B., Ray, R., and Paul, A. K. (2014). Impact of global warming on Sundarbans mangrove ecosystem, India: role of different assessment tools from ecosystem monitoring to molecular markers. In *Proceedings of the International Conference on Green India: Strategic Knowledge for Combating Climate Change—Prospects and Challenges. Pondicherry University. Excel India Publishers*, pages 181–200.
- Chakravortty, S. and Ghosh, D. (2018). Automatic identification of saline blanks and pattern of related mangrove species on hyperspectral imagery. In *2018 4th International Conference on Recent Advances in Information Technology (RAIT)*, pages 1–6. IEEE.
- Chand, B. K., Trivedi, R. K., Biswas, A., Dubey, S., and Beg, M. M. (2012). Study on impact of saline water inundation on freshwater aquaculture in Sundarban using risk analysis tools. *Explor. Anim. Med. Res*, 2:170–178.
- Chanda, A., Mukhopadhyay, A., Ghosh, T., Akhand, A., Mondal, P., Ghosh, S., Mukherjee, S., Wolf, J., Lázár, A. N., Rahman, M. M., et al. (2016). Blue carbon stock of the Bangladesh Sundarban mangroves: what could be the scenario after a century? *Wetlands*, 36(6):1033–1045.
- Chaudhuri, A. B., Choudhury, A., et al. (1994). *Mangroves of the Sundarbans. Volume one: India*. International Union for Conservation of Nature and Natural Resources (IUCN).
- Chauhan, M. and Gopal, B. (2014). Sundarban mangroves: impact of water management in the Ganga river basin. In *Our National River Ganga*, pages 143–167. Springer.
- Chmura, G. L. and Hung, G. A. (2004). Controls on salt marsh accretion: A test in salt marshes of eastern Canada. *Estuaries*, 27(1):70–81.

- Choudhury, M., Fazli, P., Pramanick, P., Gobato, R., Zaman, S., and Mitra, A. (2019). Sensitivity of the Indian Sundarban mangrove ecosystem to local level climate change. *Science and Education*, 5(3):24–28.
- Cloern, J. E. (2001). Our evolving conceptual model of the coastal eutrophication problem. *Marine ecology progress series*, 210:223–253.
- Cochrane, K. L. (2002). Fisheries management. In Cochrane, K. L., editor, *A fishery manager's guidebook: Management measures and their application*, pages 1–20. Food & Agriculture Org.
- Coleman, D. J., Rogers, K., Corbett, D. R., Owers, C. J., and Kirwan, M. L. (2021). The geomorphic impact of mangrove encroachment in an Australian salt marsh. *Estuarine, Coastal and Shelf Science*, 251:107238.
- Cowell, P. J. and Thom, B. G. (1994). Morphodynamics of coastal evolution. *Coastal evolution: Late Quaternary shoreline morphodynamics*, page 33.
- Crewz, D. W. and Lewis, R. R. (1991). An evaluation of historical attempts to establish emergent vegetation in marine wetlands in Florida. Technical report, Florida Sea Grant College, Gainesville, Florida.
- Danda, A. A., Sriskanthan, G., Ghosh, A., Bandyopadhyay, J., and Hazra, S. (2011). Indian Sundarbans delta: a vision. *World Wide Fund for Nature-India, New Delhi*, 40.
- Daniels, R. B. and Hammer, R. D. (1992). *Soil Geomorphology*. John Wiley & Sons.
- Das, B. and Bandyopadhyay, D. (2013). Ecotourism of Sundarban in Gangatic Delta. *International Journal of Scientific & Engineering Research*, 4(5):459–468.
- Das, C. and Mandal, R. N. (2016). Coastal people and mangroves ecosystem resources vis-à-vis management strategies in Indian Sundarban. *Ocean & Coastal Management*, 134:1–10.
- Das, G. K. (2015). Sunderbans: Physical aspects and configurations. In *Estuarine Morphodynamics of the Sunderbans*, pages 1–21. Springer.
- Das, S., De, M., Ganguly, D., Maiti, T. K., Mukherjee, A., Jana, T. K., and De, T. K. (2012). Depth integrated microbial community and physico-chemical properties in mangrove soil of Sundarban, India. *Advances in Microbiology*, 2(03):234–240.

- DasGupta, R. and Shaw, R. (2013). Cumulative impacts of human interventions and climate change on mangrove ecosystems of south and southeast Asia: an overview. *Journal of Ecosystems*, 2013.
- DasGupta, R., Shaw, R., and Basu, M. (2019). Implication and management of coastal salinity for sustainable community livelihood: Case study from the Indian Sundarban Delta. In *Coastal Management*, pages 251–269. Elsevier.
- Dasgupta, S., Sobhan, I., and Wheeler, D. (2017). The impact of climate change and aquatic salinization on mangrove species in the Bangladesh Sundarbans. *Ambio*, 46(6):680–694.
- Datta, D., Chattopadhyay, R., and Guha, P. (2012). Community based mangrove management: A review on status and sustainability. *Journal of environmental management*, 107:84–95.
- Datta, D. and Deb, S. (2012). Analysis of coastal land use/land cover changes in the Indian Sunderbans using remotely sensed data. *Geo-spatial information science*, 15(4):241–250.
- Datta, D. and Deb, S. (2017). Forest structure and soil properties of mangrove ecosystems under different management scenarios: Experiences from the intensely humanized landscape of Indian Sunderbans. *Ocean & Coastal Management*, 140:22–33.
- Davis, D. A. and Lovell, C. R. (2012). Specificity of salt marsh diazotrophs for vegetation zones and plant hosts: results from a North American marsh. *Frontiers in microbiology*, 3:84.
- Dhara, S. and Paul, A. K. (2016). Embankment breaching and its impact on local community in Indian Sundarban: A case study of some blocks of south west Sundarban. *IJISET*, 3(2):23–32.
- Dias, M. P., Lecoq, M., Moniz, F., and Rabaça, J. E. (2014). Can human-made saltpans represent an alternative habitat for shorebirds? implications for a predictable loss of estuarine sediment flats. *Environmental management*, 53(1):163–171.
- Dodd, N., Blondeaux, P., Calvete, D., De Swart, H. E., Falqués, A., Hulscher, S. J., Różyński, G., and Vittori, G. (2003). Understanding coastal morphodynamics using stability methods. *Journal of coastal research*, pages 849–865.
- Döll, P., Kaspar, F., and Lehner, B. (2003). A global hydrological model for deriving water availability indicators: model tuning and validation. *Journal of Hydrology*, 270(1-2):105–134.

- Donato, D. C., Kauffman, J. B., Murdiyarso, D., Kurnianto, S., Stidham, M., and Kanninen, M. (2011). Mangroves among the most carbon-rich forests in the tropics. *Nature geoscience*, 4(5):293–297.
- Donnelly, C., Kraus, N., and Larson, M. (2006). State of knowledge on measurement and modeling of coastal overwash. *Journal of coastal research*, 22(4 (224)):965–991.
- Donohue, R., Roderick, M., and McVicar, T. R. (2007). On the importance of including vegetation dynamics in Budyko's hydrological model. *Hydrology and Earth System Sciences*, 11(2):983–995.
- Dubey, S. K., Trivedi, R. K., Chand, B. K., Mandal, B., and Rout, S. K. (2017). Farmers' perceptions of climate change, impacts on freshwater aquaculture and adaptation strategies in climatic change hotspots: A case of the Indian Sundarban delta. *Environmental Development*, 21:38–51.
- Dyer, K., Christie, M., and Wright, E. (2000). The classification of intertidal mudflats. *Continental Shelf Research*, 20(10-11):1039–1060.
- Dyer, K. R. (1995). Sediment transport processes in estuaries. In *Developments in Sedimentology*, volume 53, pages 423–449. Elsevier.
- Ekka, A. and Pandit, A. (2012). Willingness to pay for restoration of natural ecosystem: A study of Sundarban mangroves by contingent valuation approach. *Indian Journal of Agricultural Economics*, 67(902-2016-67835).
- Ellison, A. M. (2000). Mangrove restoration: do we know enough? *Restoration ecology*, 8(3):219–229.
- Erwin, K. L. (2009). Wetlands and global climate change: the role of wetland restoration in a changing world. *Wetlands Ecology and management*, 17(1):71.
- Escapa, M., Perillo, G. M., and Iribarne, O. (2015). Biogeomorphically driven salt pan formation in Sarcocornia-dominated salt-marshes. *Geomorphology*, 228:147–157.
- Fan, D. (2012). Open-coast tidal flats. In Davis Jr, R. A. and Dalrymple, R. W., editors, *Principles of tidal sedimentology*, pages 187–229. Springer.

- Field, C. D. (1995). Impact of expected climate change on mangroves. In *Asia-Pacific Symposium on Mangrove Ecosystems*, pages 75–81. Springer.
- Figlus, J., Kobayashi, N., Gralher, C., and Iranzo, V. (2011). Wave overtopping and overwash of dunes. *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 137(1):26–33.
- Folland, C. K., Karl, T. R., and Jim Salinger, M. (2002). Observed climate variability and change. *Weather*, 57(8):269–278.
- Furukawa, K. and Wolanski, E. (1996). Sedimentation in mangrove forests. *Mangroves and salt marshes*, 1(1):3–10.
- Gambolati, G., Giunta, G., Putti, M., Teatini, P., Tomasi, L., Betti, I., Morelli, M., Berlamont, J., De Backer, K., Decouttere, C., Monbaliu, J., Yu, C. S., Brøker, I., Christensen, E. D., Elfrink, B., Dante, A., and Gonella, M. (1998). Coastal evolution of the Upper Adriatic Sea due to sea level rise and natural and anthropic land subsidence. In Gambolati, G., editor, *CENAS: Coastline Evolution of the Upper Adriatic Sea due to Sea Level Rise and Natural and Anthropogenic Land Subsidence*, pages 1–34. Springer Netherlands, Dordrecht.
- Ganguly, D., Mukhopadhyay, A., Pandey, R. K., and Mitra, D. (2006). Geomorphological study of Sundarban deltaic estuary. *Journal of the Indian Society of Remote Sensing*, 34(4):431–435.
- Gao, S. (2019). Geomorphology and sedimentology of tidal flats. In Perillo, G. M. E., Wolanski, E., Cahoon, D. R., and Hopkinson, C. S., editors, *Coastal Wetlands*, pages 359–381. Elsevier.
- Gayen, A. and Zaman, A. (2013). Groundwater development and sustainable management in the delta front area of Sundarban islands. *International Journal of Emerging Technology and Advanced Engineering*, 3(11):606–611.
- Ghatak, S. and Sen, G. (2010). Morphological modeling within Hoogly estuary, Indian Sunderbans: A framework for coastal zone management. In Ghatak, S., Malaviya, V. P., and Venkatraman, N. V., editors, *IGCP 582 Tropical Rivers: Hydro-physical processes, Impacts, Hazards and Management*, pages 5–13. International Geoscience Programme.
- Ghosh, A. (2018). Spatiotemporal changes of geomorphic environment in the Muriganga–Saptamukhi estuarine interflue of Indian Sundarban in the context of climate change: a case study. *Environment, Development and Sustainability*, 20(3):1153–1172.

- Ghosh, A., Mukherjee, S., Sen, N., Dasgupta, M., and Naskar, K. (2002). Check-list of mangroves and mangrove associated species in the Indian Sundarbans. *Seshaiyana*, 10(2):211–24.
- Ghosh, A. and Mukhopadhyay, S. (2016). Quantitative study on shoreline changes and erosion hazard assessment: case study in Muriganga–Saptamukhi interfluve, Sundarban, India. *Modeling Earth Systems and Environment*, 2(2):75.
- Ghosh, A., Schmidt, S., Fickert, T., and Nüsser, M. (2015). The Indian Sundarban mangrove forests: history, utilization, conservation strategies and local perception. *Diversity*, 7(2):149–169.
- Ghosh, S. and Mistri, B. (2020a). Drainage induced waterlogging problem and its impact on farming system: a study in Gosaba Island, Sundarban, India. *Spatial Information Research*, 28(6):709–721.
- Ghosh, S. and Mistri, B. (2020b). Spatio-temporal change of drainage network at human-nature interface and its future implication to the estuarine environment in Gosaba Island, Sundarban, India. *Geography, Environment, Sustainability*, 13(4):148–158.
- Gilman, E., Ellison, J., and Coleman, R. (2007). Assessment of mangrove response to projected relative sea-level rise and recent historical reconstruction of shoreline position. *Environmental monitoring and assessment*, 124(1):105–130.
- Goodale, C. L., Apps, M. J., Birdsey, R. A., Field, C. B., Heath, L. S., Houghton, R. A., Jenkins, J. C., Kohlmaier, G. H., Kurz, W., Liu, S., Nabuurs, G.-J., Nilsson, S., and Shvidenko, A. Z. (2002). Forest carbon sinks in the northern hemisphere. *Ecological Applications*, 12(3):891–899.
- Goodbred Jr, S. and Kuehl, S. A. (2000a). The significance of large sediment supply, active tectonism, and eustasy on margin sequence development: Late Quaternary stratigraphy and evolution of the Ganges–Brahmaputra delta. *Sedimentary Geology*, 133(3-4):227–248.
- Goodbred Jr, S. L. (2003). Response of the Ganges dispersal system to climate change: a source-to-sink view since the last interstadial. *Sedimentary Geology*, 162(1-2):83–104.
- Goodbred Jr, S. L. and Kuehl, S. A. (2000b). Enormous Ganges-Brahmaputra sediment discharge during strengthened early Holocene monsoon. *Geology*, 28(12):1083–1086.

- Gopal, B. (2014). Mangroves are wetlands, not forests: Some implications for their management. In Faridah-Hanum, I., Latiff, A., Hakeem, K. R., and Ozturk, M., editors, *Mangrove Ecosystems of Asia*, pages 439–453. Springer.
- Gopal, B. and Chauhan, M. (2006). Biodiversity and its conservation in the Sundarban mangrove ecosystem. *Aquatic Sciences*, 68(3):338–354.
- Guha, P., Aitch, P., and Bhandari, G. (2015). Climate change and its impact on the ecological system of the Indian Sundarban region. *Clim Change*, 1(4):432–438.
- Guisado-Pintado, E., Jackson, D. W., and Delgado-Fernandez, I. (2020). Coastal morphodynamics: nearshore, beach and dunes. *Earth Surface Processes and Landforms*, 45(5):1315–1317.
- Habiba, U., Abedin, M. A., Shaw, R., and Hassan, A. W. R. (2014). Salinity-induced livelihood stress in coastal region of Bangladesh. In Abedin, M. A., Habiba, U., and Shaw, R., editors, *Water insecurity: A social dilemma*. Emerald Group Publishing Limited.
- Haque, M. (2003). How fishers' endeavors and information help in managing the fisheries resources of the Sundarban mangrove forest of Bangladesh. In Haggan, N., C, B., and L, W., editors, *Putting Fishers' Knowledge to Work*, volume 11 of *Fisheries Center Research Reports*, pages 433–438. Citeseer.
- Hartig, E. K., Gornitz, V., Kolker, A., Mushacke, F., and Fallon, D. (2002). Anthropogenic and climate-change impacts on salt marshes of Jamaica Bay, New York City. *Wetlands*, 22(1):71–89.
- Hazra, S., Ghosh, T., DasGupta, R., and Sen, G. (2002). Sea level and associated changes in the Sundarbans. *Science and Culture*, 68(9/12):309–321.
- Hossain, M., Nayeem, A. A., and Majumder, D. A. K. (2017). Bio-economic modeling for coastal mangrove forest restoration. In *Proceedings of International Conference on Disaster Risk Mitigation, Dhaka, Bangladesh*.
- Hossain, M. I., Nabi, M. R., Ansari, M. N. A., Latif, A., Mahmud, M. R., and Islam, M. S. (2016). Ecosystem services of the world largest mangrove forest Sundarban in Bangladesh. *International Journal of Innovation and Scientific Research*, 27(1):9–15.

- Hu, Z., Wang, Z. B., Zitman, T. J., Stive, M. J., and Bouma, T. J. (2015). Predicting long-term and short-term tidal flat morphodynamics using a dynamic equilibrium theory. *Journal of Geophysical Research: Earth Surface*, 120(9):1803–1823.
- Hussain, Z. and Acharya, G. (1994). *Mangroves of the Sundarbans. Volume two: Bangladesh*. International Union for Conservation of Nature and Natural Resources (IUCN).
- Iftekhar, M. (2008). An overview of mangrove management strategies in three South Asian countries: Bangladesh, India and Sri Lanka. *International Forestry Review*, 10(1):38–51.
- Iftekhar, M. S. and Islam, M. R. (2004). Managing mangroves in Bangladesh: A strategy analysis. *Journal of Coastal Conservation*, 10(1):139–146.
- Islam, M. S. and Tooley, M. (1999). Coastal and sea-level changes during the Holocene in Bangladesh. *Quaternary International*, 55(1):61–75.
- Islam, M. S. and Wahab, M. A. (2005). A review on the present status and management of mangrove wetland habitat resources in Bangladesh with emphasis on mangrove fisheries and aquaculture. *Aquatic biodiversity II*, pages 165–190.
- Islam, S. N. and Gnauck, A. (2008). Mangrove wetland ecosystems in Ganges-Brahmaputra delta in Bangladesh. *Frontiers of Earth Science in China*, 2(4):439–448.
- Jackson, D., Cooper, J., and Del Rio, L. (2005). Geological control of beach morphodynamic state. *Marine Geology*, 216(4):297–314.
- Jalais, A. (2004). *People and tigers: an anthropological study of the Sundarbans of West Bengal, India*. PhD thesis, University of London.
- Jalais, A. (2014). *Forest of tigers: people, politics and environment in the Sundarbans*. Routledge.
- Jana, A., Maiti, S., and Biswas, A. (2017). Appraisal of long-term shoreline oscillations from a part of coastal zones of Sundarban delta, Eastern India: A study based on geospatial technology. *Spatial Information Research*, 25(5):713–723.
- Jardine, S. L. and Siikamäki, J. V. (2014). A global predictive model of carbon in mangrove soils. *Environmental Research Letters*, 9(10):104013.

- Jayanthi, M. et al. (2010). Status of mangroves in relation to brackishwater aquaculture development in Tamil Nadu, India. Technical report, Central Institute of Brackishwater Aquaculture.
- Jones, T. G., Ratsimba, H. R., Ravaoarinorotsihorana, L., Cripps, G., and Bey, A. (2014). Ecological variability and carbon stock estimates of mangrove ecosystems in northwestern Madagascar. *Forests*, 5(1):177–205.
- Kamruzzaman, M., Ahmed, S., and Osawa, A. (2017). Biomass and net primary productivity of mangrove communities along the Oligohaline zone of Sundarbans, Bangladesh. *Forest Ecosystems*, 4(1):1–9.
- Kathiresan, K. and Bingham, B. L. (2001). Biology of mangroves and mangrove ecosystems. *Advances in Marine Biology*, 40:81–251.
- Khan, M. N. I., Suwa, R., and Hagiwara, A. (2007). Carbon and nitrogen pools in a mangrove stand of *Kandelia obovata* (S., L.) Yong: vertical distribution in the soil–vegetation system. *Wetlands Ecology and Management*, 15(2):141–153.
- Khanom, S., Shah, M. A. R., and Chaudhary, A. (2011). Towards ecotourism: issues of current tourism practices in the Sundarban mangrove forest, Bangladesh. In *Peace, Environment and Tourism Conference*, pages 1–8.
- Kim, D., Bartholdy, J., Jung, S., and Cairns, D. M. (2011). Salt marshes as potential indicators of global climate change. *Geography Compass*, 5(5):219–236.
- Kirwan, M. L. and Mudd, S. M. (2012). Response of salt-marsh carbon accumulation to climate change. *Nature*, 489(7417):550–553.
- Komiyama, A., Havanond, S., Srisawatt, W., Mochida, Y., Fujimoto, K., Ohnishi, T., Ishihara, S., and Miyagi, T. (2000). Top/root biomass ratio of a secondary mangrove (*Ceriops tagal* (Perr.) CB Rob.) forest. *Forest Ecology and Management*, 139(1-3):127–134.
- Komiyama, A., Ong, J. E., and Poungparn, S. (2008). Allometry, biomass, and productivity of mangrove forests: A review. *Aquatic botany*, 89(2):128–137.
- Komiyama, A., Poungparn, S., and Kato, S. (2005). Common allometric equations for estimating the tree weight of mangroves. *Journal of tropical ecology*, pages 471–477.

- Krauss, K. W., McKee, K. L., Lovelock, C. E., Cahoon, D. R., Saintilan, N., Reef, R., and Chen, L. (2014). How mangrove forests adjust to rising sea level. *New Phytologist*, 202(1):19–34.
- Kruskal, W. H. and Wallis, W. A. (1952). Use of ranks in one-criterion variance analysis. *Journal of the American Statistical Association*, 47(260):583–621.
- Lee, S. Y., Primavera, J. H., Dahdouh-Guebas, F., McKee, K., Bosire, J. O., Cannicci, S., Diele, K., Fromard, F., Koedam, N., Marchand, C., et al. (2014). Ecological role and services of tropical mangrove ecosystems: a reassessment. *Global ecology and biogeography*, 23(7):726–743.
- Lercari, D. and Defeo, O. (2006). Large-scale diversity and abundance trends in sandy beach macrofauna along full gradients of salinity and morphodynamics. *Estuarine, Coastal and Shelf Science*, 68(1-2):27–35.
- Levene, H. (1960). Robust tests for equality of variances. In Olkin, I., editor, *Contributions to Probability and Statistics: Essays in honor of Harold Hotelling*, pages 278–292. Stanford University Press.
- Lewis III, R. R. (2005). Ecological engineering for successful management and restoration of mangrove forests. *Ecological engineering*, 24(4):403–418.
- Liu, L., Ji, M., and Buchroithner, M. (2018). A case study of the forced invariance approach for soil salinity estimation in vegetation-covered terrain using airborne hyperspectral imagery. *ISPRS International Journal of Geo-Information*, 7(2):48.
- Lloret, J., Marín, A., and Marín-Guirao, L. (2008). Is coastal lagoon eutrophication likely to be aggravated by global climate change? *Estuarine, Coastal and Shelf Science*, 78(2):403–412.
- Lovelock, C. E., Ball, M. C., Martin, K. C., and Feller, I. C. (2009). Nutrient enrichment increases mortality of mangroves. *PloS one*, 4(5):e5600.
- Lowenstein, T. K. and Hardie, L. A. (1985). Criteria for the recognition of salt-pan evaporites. *Sedimentology*, 32(5):627–644.
- Lugendo, B. (2016). Mangroves, salt marshes and seagrass beds. In Paula, J., editor, *Regional State of the Coast Report: Western Indian Ocean*. UN.

- Lüke, A. and Hack, J. (2017). Modelling hydrological ecosystem services—a state of the art model comparison. *Hydrology and Earth System Sciences Discussions*, pages 1–29.
- Machiwa, J. F. and Hallberg, R. O. (2002). An empirical model of the fate of organic carbon in a mangrove forest partly affected by anthropogenic activity. *Ecological Modelling*, 147(1):69–83.
- Madsen, H. and Jakobsen, F. (2004). Cyclone induced storm surge and flood forecasting in the northern Bay of Bengal. *Coastal Engineering*, 51(4):277–296.
- Mahadevia Ghimire, K. and Vikas, M. (2012). Climate change—impact on the Sundarbans, a case study. *International Scientific Journal: Environmental Science*, 2(1):7–15.
- Mandal, A. K. and Nandi, N. C. (1989). *Fauna of Sundarban mangrove ecosystem, West Bengal, India*, volume 3. Zoological Survey of India.
- Mandal, S., Ray, S., and Ghosh, P. B. (2012). Comparative study of mangrove litter nitrogen cycling to the adjacent estuary through modelling in pristine and reclaimed islands of Sundarban mangrove ecosystem, India. *Procedia Environmental Sciences*, 13:340–362.
- Mandal, S., Ray, S., and Ghosh, P. B. (2013). Impact of mangrove litterfall on nitrogen dynamics of virgin and reclaimed islands of Sundarban mangrove ecosystem, India. *Ecological modelling*, 252:153–166.
- Manna, S., Chaudhuri, K., Bhattacharyya, S., and Bhattacharyya, M. (2010). Dynamics of Sundarban estuarine ecosystem: eutrophication induced threat to mangroves. *Saline systems*, 6(1):1–16.
- Manna, S., Chaudhuri, K., Sarma, K. S., Naskar, P., Bhattacharyya, S., and Bhattacharyya, M. (2012). Interplay of physical, chemical and biological components in estuarine ecosystem with special reference to Sundarbans, India. *Ecological Water Quality– Water Treatment and Reuse*, pages 206–238.
- Marchionni, D., Martinez, G., Del Blanco, M., and Cavayas, F. (2009). Saltpan surface variations analysis with Radarsat-2 data. In *Proc. 4th. Intnl. Workshop on Science and applications of SAR polarimetry and polarimetric interferometry*.

- Masselink, G. and Gehrels, R. (2015). *Coastal environments and global change*. John Wiley & Sons.
- Masselink, G., Hughes, M., and Knight, J. (2014). *Introduction to coastal processes and geomorphology*. Routledge.
- Masselink, G. and Short, A. D. (1993). The effect of tide range on beach morphodynamics and morphology: a conceptual beach model. *Journal of coastal research*, pages 785–800.
- Mazda, Y., Wolanski, E., and Ridd, P. (2007). *The role of physical processes in mangrove environments: manual for the preservation and utilization of mangrove ecosystems*. Terrapub.
- McKee, K., Rogers, K., and Saintilan, N. (2012). Response of salt marsh and mangrove wetlands to changes in atmospheric CO<sub>2</sub>, climate, and sea level. In *Global change and the function and distribution of wetlands*, pages 63–96. Springer.
- McKee, K. L. and Faulkner, P. L. (2000). Restoration of biogeochemical function in mangrove forests. *Restoration Ecology*, 8(3):247–259.
- McKee, K. L. and Vervaeke, W. C. (2018). Will fluctuations in salt marsh–mangrove dominance alter vulnerability of a subtropical wetland to sea-level rise? *Global Change Biology*, 24(3):1224–1238.
- Mcleod, E., Chmura, G. L., Bouillon, S., Salm, R., Björk, M., Duarte, C. M., Lovelock, C. E., Schlesinger, W. H., and Silliman, B. R. (2011). A blueprint for blue carbon: toward an improved understanding of the role of vegetated coastal habitats in sequestering CO<sub>2</sub>. *Frontiers in Ecology and the Environment*, 9(10):552–560.
- Mengel, M., Levermann, A., Frieler, K., Robinson, A., Marzeion, B., and Winkelmann, R. (2016). Future sea level rise constrained by observations and long-term commitment. *Proceedings of the National Academy of Sciences*, 113(10):2597–2602.
- Metcalfe, S. E. (1993). Evolution of the Pretoria Saltpan— a diatom record spanning a full glacial-interglacial cycle. In *Twelfth International Diatom Symposium*, pages 159–166. Springer.
- Meybeck, M. (1982). Carbon, nitrogen, and phosphorus transport by world rivers. *American Journal of Science*, 282(4):401–450.

- Mistri, A. (2013). Migration and sustainable livelihoods: a study from Sundarban Biosphere Reserve. *Asia Pacific Journal of Social Sciences*, 5(2):76–102.
- Mitra, A. (2018). Salinity: A primary growth driver of mangrove forest. *Sustainable Forestry*, 1(2):1–9.
- Mitra, A. (2020). Mangroves: A shield against storms and wave actions. In *Mangrove Forests in India*, pages 33–57. Springer.
- Mitra, A., Chowdhury, R., Sengupta, K., and Banerjee, K. (2010). Impact of salinity on mangroves of Indian Sundarbans. *Jour. Coast. Env*, 1(1):71–82.
- Mitra, A., Dutta, J., Mitra, A., and Thakur, T. (2020). Amphan Supercyclone: A death knell for Indian Sundarbans. *eJournal of Applied Forest Ecology*, 8(1):41–48.
- Mitra, A., Gangopadhyay, A., Dube, A., Schmidt, A. C. K., and Banerjee, K. (2009). Observed changes in water mass properties in the Indian Sundarbans (northwestern Bay of Bengal) during 1980–2007. *Current Science*, 97(10):1445–1452.
- Moffett, K. B., Robinson, D. A., and Gorelick, S. M. (2010). Relationship of salt marsh vegetation zonation to spatial patterns in soil moisture, salinity, and topography. *Ecosystems*, 13(8):1287–1302.
- Mondal, I., Bandyopadhyay, J., Chakrabarti, P., and Santra, D. (2015). Morphodynamic change of Fraserganj and Bakkhali coastal stretch of Indian Sundarban, South 24 Parganas, West Bengal, India. *Int J Remote Sens Appl*, 5:1–10.
- Mukherjee, N., Sutherland, W. J., Dicks, L., Hugé, J., Koedam, N., and Dahdouh-Guebas, F. (2014). Ecosystem service valuations of mangrove ecosystems to inform decision making and future valuation exercises. *PloS one*, 9(9):e107706.
- Mukhopadhyay, S., Biswas, H., De, T., Sen, B., Sen, S., and Jana, T. (2002). Impact of Sundarban mangrove biosphere on the carbon dioxide and methane mixing ratios at the NE coast of Bay of Bengal, India. *Atmospheric Environment*, 36(4):629–638.
- Murray, N. J., Phinn, S. R., DeWitt, M., Ferrari, R., Johnston, R., Lyons, M. B., Clinton, N., Thau, D., and Fuller, R. A. (2019). The global distribution and trajectory of tidal flats. *Nature*, 565(7738):222–225.

- Naha, D., Jhala, Y. V., Qureshi, Q., Roy, M., Sankar, K., and Gopal, R. (2016). Ranging, activity and habitat use by tigers in the mangrove forests of the Sundarban. *PLoS One*, 11(4):e0152119.
- Nakada, S., Yasumoto, J., Taniguchi, M., and Ishitobi, T. (2011). Submarine groundwater discharge and seawater circulation in a subterranean estuary beneath a tidal flat. *Hydrological Processes*, 25(17):2755–2763.
- Naskar, K. (1999). The Sundarbans mangrove forests in India and their ecological stresses. In Bakshi, D. N. G., Sanyal, P., and Naskar, K., editors, *Sundarbans Mangal*, pages 235–250. Naya Prakash.
- Nautiyal, S., Schaldah, R., Raju, K., Kaechele, H., Pritchard, B., and Rao, K. S. (2016). Climate Change Challenge (3C) and social-economic-ecological interface-building—exploring potential adaptation strategies for bio-resource conservation and livelihood development: Epilogue. In *Climate Change Challenge (3C) and Social-Economic-Ecological Interface-Building*, pages 631–639. Springer.
- Neogi, S. B., Dey, M., Lutful Kabir, S. M., Masum, S. J. H., Kopprio, G. A., Yamasaki, S., and Lara, R. J. (2016). Sundarban mangroves: diversity, ecosystem services and climate change impacts. *Asian Journal of Medical and Biological Research*, 2(4):488–507.
- Nicholls, R. J. and Leatherman, S. P. (1996). Adapting to sea-level rise: Relative sea-level trends to 2100 for the United States. *Coastal Management*, 24(4):301–324.
- Oguntunde, P. G. and Abiodun, B. J. (2013). The impact of climate change on the Niger River Basin hydroclimatology, West Africa. *Climate Dynamics*, 40(1-2):81–94.
- Oms, O., Fondevilla, V., Riera, V., Marmi, J., Vicens, E., Estrada, R., Anadón, P., Vila, B., and Galobart, À. (2016). Transitional environments of the lower Maastrichtian South-Pyrenean Basin (Catalonia, Spain): the Fumanya member tidal flat. *Cretaceous Research*, 57:428–442.
- Pal, N., Sufia, Z., Prosenjit, P., and Abhijit, M. (2017). Impact of aquatic salinity on mangrove seedlings: A case study on Heritiera fomes (common name: Sundari). *Biomedical Journal of Scientific & Technical Research (BJSTR)*, 1(4).

- Patrick, M. G. (2016). *Stratigraphic evolution of the Ganges-Brahmaputra lower delta plain and its relation to groundwater arsenic distributions*. PhD thesis, Graduate School of Vanderbilt University.
- Paul, A. K. (1998). Physical and socio-economic uncertainties in the perspective of present rising sea-level — a study in coastal West Bengal. In *Geomorphology and Environmental Management*, volume 28, pages 161–162.
- Paul, A. K. (2002). *Coastal Geomorphology and Environment: Sundarban Coastal Plain, Kanthi Coastal Plain, Subarnarekha Delta Plain*. ACB Publications, Kolkata.
- Paul, A. K., Ray, R., Kamila, A., and Jana, S. (2017). Mangrove degradation in the Sundarbans. In *Coastal wetlands: alteration and remediation*, pages 357–392. Springer.
- Payo, A., Mukhopadhyay, A., Hazra, S., Ghosh, T., Ghosh, S., Brown, S., Nicholls, R. J., Bricheno, L., Wolf, J., Kay, S., Lázár, A. N., and Haque, A. (2016). Projected changes in area of the Sundarban mangrove forest in Bangladesh due to SLR by 2100. *Climatic Change*, 139(2):279–291.
- Pechlivanidis, I. G., Olsson, J., Bosshard, T., Sharma, D., and Sharma, K. (2016). Multi-basin modelling of future hydrological fluxes in the Indian subcontinent. *Water*, 8(5):177.
- Peters, R., Walther, M., Lovelock, C., Jiang, J., and Berger, U. (2020). The interplay between vegetation and water in mangroves: new perspectives for mangrove stand modelling and ecological research. *Wetlands Ecology and Management*, 28(4):697–712.
- Peterson, C. D. and Vanderburgh, S. (2018). Tidal flat depositional response to neotectonic cyclic uplift and subsidence (1–2 m) as superimposed on latest-Holocene net sea level rise (1.0 m/ka) in a large shallow mesotidal wave-dominated estuary, Willapa Bay, Washington, USA. *Journal of Geography and Geology*, 10(1).
- Pethick, J. S. (1981). Long-term accretion rates on tidal salt marshes. *Journal of Sedimentary Research*, 51(2):571–577.
- Pethick, J. S. (1984). An introduction to coastal geomorphology. Technical report, Dept. of Geography, Univ. of Hull.

- Pinay, G., Black, V., Planty-Tabacchi, A., Gumiero, B., and Décamps, H. (2000). Geomorphic control of denitrification in large river floodplain soils. *Biogeochemistry*, 50(2):163–182.
- Pouliotte, J., Smit, B., and Westerhoff, L. (2009). Adaptation and development: Livelihoods and climate change in Subarnabad, Bangladesh. *Climate and Development*, 1(1):31–46.
- Pramanik, M. K. (2015). Assessment of the impacts of sea level rise on mangrove dynamics in the Indian part of Sundarbans using geospatial techniques. *Journal of Biodiversity, Bioprospecting and Development*, 3(155):2376–0214.
- Prasad, M. B. K. (2012). Nutrient stoichiometry and eutrophication in Indian mangroves. *Environmental Earth Sciences*, 67(1):293–299.
- Qiaomin, Z., Hongbing, Y., Xinshu, C., and Dezhang, Z. (1997). The relationship between mangrove zone on tidal flats and tidal levels. *Acta Ecologica Sinica*, 17(3):258–265.
- Quader, M. A., Agrawal, S., and Kervyn, M. (2017). Multi-decadal land cover evolution in the Sundarban, the largest mangrove forest in the world. *Ocean & Coastal Management*, 139:113–124.
- Raha, A., Das, S., Banerjee, K., and Mitra, A. (2012). Climate change impacts on Indian Sunderbans: a time series analysis (1924–2008). *Biodiversity and Conservation*, 21(5):1289–1307.
- Raha, A., others Raha, A. K., Mishra, A., Bhattacharya, S., Ghatak, S., Pramanick, P., Dey, S., Sarkar, I., and Jha, C. (2014). Sea level rise and submergence of Sundarban islands: a time series study of estuarine dynamics. *Journal of Ecology and Environmental Sciences*, 5(1):114–123.
- Rahman, A. F., Dragoni, D., and El-Masri, B. (2011a). Response of the Sundarbans coastline to sea level rise and decreased sediment flow: A remote sensing assessment. *Remote Sensing of Environment*, 115(12):3121–3128.
- Rahman, M. M. (2020). Impact of increased salinity on the plant community of the Sundarbans mangrove of Bangladesh. *Community Ecology*, 21(3):273–284.

- Rahman, M. M. and Islam, S. A. (2015). Phenophases of five mangrove species of the Sundarbans of Bangladesh. *International Journal of Business, Social and Scientific Research*, 4(1):77–82.
- Rahman, M. M., Khan, M. N. I., Hoque, A. F., and Ahmed, I. (2015). Carbon stock in the Sundarbans mangrove forest: spatial variations in vegetation types and salinity zones. *Wetlands Ecology and Management*, 23(2):269–283.
- Rahman, M. M., Rahman, M. M., and Islam, K. S. (2010). The causes of deterioration of Sundarban mangrove forest ecosystem of Bangladesh: conservation and sustainable management issues. *Aquaculture, Aquarium, Conservation & Legislation*, 3(2):77–90.
- Rahman, M. R. and Asaduzzaman, M. (2010). Ecology of Sundarban, Bangladesh. *Journal of Science Foundation*, 8(1-2):35–47.
- Rahman, M. T., Rahman, M. S., Quraishi, S. B., Ahmad, J. U., Choudhury, T. R., and Mottaleb, M. A. (2011b). Distribution of heavy metals in water and sediments in Passur river, Sundarban mangrove forest, Bangladesh. *Journal of International Environmental Application & Science*, 6(4):537–546.
- Rainey, J. R. (1891). The Sundarban: its physical features and ruins. *Proceedings of the Royal Geographical Society and Monthly Record of Geography*, 13(5):273–287.
- Ranjan, R. (2019). Optimal mangrove restoration through community engagement on coastal lands facing climatic risks: The case of Sundarbans region in India. *Land Use Policy*, 81:736–749.
- Rawat, N., Babu, M. U., and Nautiyal, S. (2016). Climate change and sea-level rise: A review of studies on low-lying and island countries. Technical report, Institute for Social and Economic Change.
- Ray, P. (1993). *Aquaculture in Sundarban Delta: Its Perspective: an Assessment*. Concept Publishing Company.
- Reise, K. (2012). *Tidal flat ecology: an experimental approach to species interactions*, volume 54. Springer Science & Business Media.

- Rogers, K. and Woodroffe, C. D. (2015). Tidal flats and salt marshes. In Masselink, G. and Gehrels, R., editors, *Coastal Environments and Global Change*, pages 227–250. Wiley Online Library.
- Rogers, K. G. and Goodbred, S. L. (2014). The Sundarbans and Bengal Delta: the world's largest tidal mangrove and delta system. In *Landscapes and landforms of India*, pages 181–187. Springer.
- Rouse, J. W., Haas, R. H., Schell, J. A., and Deering, D. W. (1974). Monitoring vegetation systems in the Great Plains with ERTS. In *Proceeding of Third Earth Resources Technology Satellite Symposium 1*, volume 1, pages 309–317. NASA.
- Royston, J. P. (1982a). Algorithm AS 181: the W test for normality. *Journal of the Royal Statistical Society. Series C (Applied Statistics)*, 31(2):176–180.
- Royston, J. P. (1982b). An extension of Shapiro and Wilk's W test for normality to large samples. *Journal of the Royal Statistical Society: Series C (Applied Statistics)*, 31(2):115–124.
- Royston, P. (1995). Remark AS R94: A remark on Algorithm AS 181: The W-test for normality. *Journal of the Royal Statistical Society. Series C (Applied Statistics)*, 44(4):547–551.
- Sadik, S. and Rahman, R. (2009). Indicator framework for assessing livelihood resilience to climate change for vulnerable communities dependent on Sundarban mangrove system. In *4th South Asia Water Research Conference, Kathmandu*, pages 20–23.
- Saha, P., Saha, B. K., and Hazra, S. (2014). Recent changes in coastal configuration of Henry's Island. *Current Science*, pages 679–688.
- Sahana, M., Rehman, S., Ahmed, R., and Sajjad, H. (2020). Analyzing climate variability and its effects in Sundarban Biosphere Reserve, India: reaffirmation from local communities. *Environment, Development and Sustainability*, 23:2465–2492.
- Sahana, M., Rehman, S., Paul, A. K., and Sajjad, H. (2019). Assessing socio-economic vulnerability to climate change-induced disasters: evidence from Sundarban Biosphere Reserve, India. *Geology, Ecology, and Landscapes*, 5(1):40–52.

- Sahu, S. C., Suresh, H., Murthy, I., and Ravindranath, N. (2015). Mangrove area assessment in India: implications of loss of mangroves. *Journal of Earth Science & Climatic Change*, 6(5):1.
- Saintilan, N., Khan, N., Ashe, E., Kelleway, J., Rogers, K., Woodroffe, C. D., and Horton, B. (2020). Thresholds of mangrove survival under rapid sea level rise. *Science*, 368(6495):1118–1121.
- Saintilan, N. and Williams, R. J. (1999). Mangrove transgression into saltmarsh environments in south-east Australia. *Global Ecology and Biogeography*, 8(2):117–124.
- Sandilyan, S. and Kathiresan, K. (2015). Mangroves as bioshield: an undisputable fact. *Ocean & Coastal Management*, 103:94–96.
- Sanyal, P. and Bal, A. (1986). Some observations on abnormal adaptations of mangrove in Indian Sundarbans. *Journal of Indian Society of Coastal Agricultural Research*, 4(1):9–15.
- Sarkar, D. J., Sarkar, S. D., Das, B. K., Manna, R. K., Behera, B. K., and Samanta, S. (2019). Spatial distribution of meso and microplastics in the sediments of river Ganga at eastern India. *Science of the Total Environment*, 694:133712.
- Sarkar, M., Kabir, S., Begum, R. A., Pereira, J. J., Jaafar, A. H., and Saari, M. Y. (2014). Impacts of and adaptations to sea level rise in Malaysia. *Asian journal of Water, Environment and Pollution*, 11(2):29–36.
- Selvam, V., Ramasubramanian, R., and Ravichandran, K. (2012). Genesis and present status of restoration practices in saline blanks in India. *Sharing Lessons on Mangrove Restoration*, page 133.
- Semeniuk, V. (2018). Tidal flats. In Finkl, C. W. and Makowski, C., editors, *Encyclopedia of Coastal Science*, pages 1–20. Springer International Publishing, Cham.
- Sen, S. and Homechaudhuri, S. (2018). Comparative burrow architectures of resident fiddler crabs (ocypodidae) in Indian Sundarban mangroves to assess their suitability as bioturbating agents. In *Proceedings of the Zoological Society*, volume 71, pages 17–24. Springer.
- Sengupta, A. and Chaudhuri, S. (1990). Vesicular arbuscular mycorrhiza (VAM) in pioneer salt marsh plants of the Ganges river delta in West Bengal (India). *Plant and Soil*, 122(1):111–113.

- Shapiro, S. S. and Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, 52(3/4):591–611.
- Shinn, E. A. (1983). Tidal flat environment. *Carbonate depositional environments: AAPG Memoir*, 33:172–210.
- Silvestri, S. and Marani, M. (2004). Salt-marsh vegetation and morphology: Basic physiology, modelling and remote sensing observations. *The Ecogeomorphology of Tidal Marshes, Coastal Estuarine Stud*, 59:5–25.
- Simas, T., Nunes, J., and Ferreira, J. (2001). Effects of global climate change on coastal salt marshes. *Ecological Modelling*, 139(1):1–15.
- Singaraja, C., Chidambaram, S., Anandhan, P., and Tariq Abdul Kareem, K. (2014). Ground-water contamination due to salt-panning activity and seawater intrusion at Tuticorin coastal zone, southern Tamil Nadu, India. *Int. J. Adv. Geosci*, 2(2):133–139.
- Singh, O., Sarangi, A., and Sharma, M. C. (2008). Hypsometric integral estimation methods and its relevance on erosion status of north-western lesser Himalayan watersheds. *Water Resources Management*, 22(11):1545–1560.
- Sinha, M., Mukhopadhyay, M., Mitra, P., Bagchi, M., and Karamkar, H. (1996). Impact of Farakka barrage on the hydrology and fishery of Hoogly estuary. *Estuaries*, 19(3):710–722.
- Smith, D., Harrison, S., Firth, C. R., and Jordan, J. T. (2011). The early holocene sea level rise. *Quaternary Science Reviews*, 30(15-16):1846–1860.
- Sodhi, N. S., Brook, B. W., and Bradshaw, C. J. (2013). *Tropical conservation biology*. John Wiley & Sons.
- Spalding, M. (2010). *World Atlas of Mangroves*. Routledge.
- Sreelekshmi, S., Nandan, S. B., Kaimal, S. V., Radhakrishnan, C. K., and Suresh, V. R. (2020). Mangrove species diversity, stand structure and zonation pattern in relation to environmental factors – a case study at Sundarban delta, east coast of India. *Regional Studies in Marine Science*, 35:101111.
- Strahler, A. N. (1952). Hypsometric (area-altitude) analysis of erosional topography. *Geological Society of America Bulletin*, 63(11):1117–1142.

- Thompson, R. W. (1968). *Tidal flat sedimentation on the Colorado River delta, northwestern Gulf of California*, volume 107. Geological Society of America.
- Thornthwaite, C. W. (1948). An approach toward a rational classification of climate. *Geographical review*, 38(1):55–94.
- Todini, E. (2007). Hydrological catchment modelling: past, present and future. *Hydrology and Earth System Sciences*, 11(1):468–482.
- Tudoran, G. M. and Zotta, M. (2020). Adapting the planning and management of Norway spruce forests in mountain areas of Romania to environmental conditions including climate change. *Science of The Total Environment*, 698:133761.
- Tukey, J. W. (1949). Comparing individual means in the analysis of variance. *Biometrics*, pages 99–114.
- Umitsu, M. (1987). Late Quaternary sedimentary environment and landform evolution in the Bengal lowland. *Geographical review of Japan, Series B.*, 60(2):164–178.
- Viswanathan, C., Purvaja, R., Jeevamani, J. J. J., Samuel, V. D., Sankar, R., Abhilash, K. R., Geevarghese, G. A., Muruganandam, R., Gopi, M., Raja, S., Das, R. R., Patro, S., Krishnan, P., and Ramesh, R. (2020). Salt marsh vegetation in India: Species composition, distribution, zonation pattern and conservation implications. *Estuarine, Coastal and Shelf Science*, 242:1–12.
- Vittal, B. and Sarma, V. V. (2006). Diversity and ecology of fungi on mangroves of Bay of Bengal region— an overview. *Indian Journal of Marine Sciences*.
- Wadia, D. N. (1961). *Geology of India*. McMillan and Company, London.
- Wahid, S. M., Babel, M. S., and Bhuiyan, A. R. (2007). Hydrologic monitoring and analysis in the Sundarbans mangrove ecosystem, Bangladesh. *Journal of Hydrology*, 332(3-4):381–395.
- Walters, D. C. and Kirwan, M. L. (2016). Optimal hurricane overwash thickness for maximizing marsh resilience to sea level rise. *Ecology and Evolution*, 6(9):2948–2956.
- Ward, R. D., Friess, D. A., Day, R. H., and MacKenzie, R. A. (2016). Impacts of climate change on mangrove ecosystems: a region by region overview. *Ecosystem Health and Sustainability*, 2(4):e01211.

- Warrick, R. A. and Oerlemans, J. (1990). Sea level rise. In Houghton, J. T., Jenkins, G. J., and Ephraums, J. J., editors, *Climate Change: The IPCC Scientific Assessment*, pages 257–281. Cambridge University Press, Cambridge, UK.
- Wells, J. T. (1995). Tide-dominated estuaries and tidal rivers. In *Developments in Sedimentology*, volume 53, pages 179–205. Elsevier.
- Wilcoxon, F. (1945). Individual comparisons by ranking methods. *Biometrics Bulletin*, 1(6):80–83.
- Willemsen, P. W. J. M., Horstman, E. M., Borsje, B. W., Friess, D., and Dohmen-Janssen, C. M. (2016). Sensitivity of the sediment trapping capacity of an estuarine mangrove forest. *Geomorphology*, 273:189–201.
- Williams, H. (2016). Overwash. In Kennish, M. J., editor, *Encyclopedia of Estuaries*, page 468. Springer, Dordrecht.
- Woodroffe, C., Robertson, A., and Alongi, D. (1992). Mangrove sediments and geomorphology. In Robertson, A. I. and Alongi, D. M., editors, *Tropical mangrove ecosystems*, volume 41 of *Coastal and Estuarine Studies*, pages 7–41. Wiley Online Library.
- Woodroffe, C. D. (2018). Mangrove response to sea level rise: palaeoecological insights from macrotidal systems in northern Australia. *Marine and Freshwater Research*, 69(6):917–932.
- Woodroffe, C. D., Lovelock, C. E., and Rogers, K. (2015). Mangrove shorelines. In Masselink, G. and Gehrels, R., editors, *Coastal environments and global change*, pages 251–267. Wiley Online Library.
- Woodroffe, C. D., Rogers, K., McKee, K. L., Lovelock, C. E., Mendelsohn, I., and Saintilan, N. (2016). Mangrove sedimentation and response to relative sea-level rise. *Annual Review of Marine Science*, 8:243–266.
- Wright, L. D. and Short, A. D. (1984). Morphodynamic variability of surf zones and beaches: a synthesis. *Marine Geology*, 56(1-4):93–118.
- Wright, L. D. and Thom, B. G. (1977). Coastal depositional landforms: a morphodynamic approach. *Progress in Physical Geography*, 1(3):412–459.

- Yang, B., Dalrymple, R., and Chun, S. (2005). Sedimentation on a wave-dominated, open-coast tidal flat, south-western Korea: summer tidal flat–winter shoreface. *Sedimentology*, 52(2):235–252.
- Yang, S.-C., Shih, S.-S., Hwang, G.-W., Adams, J. B., Lee, H.-Y., and Chen, C.-P. (2013). The salinity gradient influences on the inundation tolerance thresholds of mangrove forests. *Ecological engineering*, 51:59–65.
- Yuvaraj, E., Dharanirajan, K., Jayakumar, S., et al. (2014). Geomorphic settings of mangrove ecosystem in South Andaman Island: A geospatial approach. *Journal of Earth System Science*, 123(8):1819–1830.
- Zhu, G., Ju, W., Chen, J., and Liu, Y. (2014). A novel moisture adjusted vegetation index (MAVI) to reduce background reflectance and topographical effects on LAI retrieval. *PloS one*, 9(7):1–15.