

Diptimayee Nayak



Associate Professor Department of Humanities and Social Sciences, Indian Institute of Technology Roorkee

E-mail: dipti.nayak@hs.iitr.ac.in

Research Interests

Environmental & Ecological Economics, Valuation of Forest and Water Ecosystem Services, Ecotourism, Governance of Commons, Space Economy, Space Debris Management, Sustainability, Public Policy

Educational Details

Ph.D. in Economics Indian Institute of Technology Delhi | 2016

Professional Background

Associate Professor Indian Institute of Technology Roorkee | 01 Aug 2023 – Present

Assistant Professor Indian Institute of Technology Roorkee | 05 Sep 2016 – 31 Jul 2023

Assistant Professor Veer Surendra Sai University of Technology, Burla, Government of Odisha | 01 Jun 2012 – 01 Aug 2016

Resource Person / Lecturer (Contractual) Orissa School of Mining & Engineering (Degree Stream), Keonjhar, Government of Odisha | 01 Aug 2006 – 01 Jul 2008

Administrative Positions

- Head of Department, Department of Humanities, VSSUT Burla | 2016
- Chief Warden, Sarojini Bhawan, IIT Roorkee | 2020–2022
- Member, DAPC, IIT Roorkee | 2021–Present
- Faculty Advisor, NSS & NCC, IIT Roorkee | 2022–2024
- Member, Anti-Ragging Squad, VSSUT Burla | 2013–2014
- Warden, Sarojini Bhawan, IIT Roorkee | 2019–2020
- Professor-in-Charge, Library, IIT Roorkee | 2018–2021
- Member, Department Purchase Committee, IIT Roorkee | 2021–Present

Honors & Awards

- UGC-NET, University Grants Commission, New Delhi | 2006
- JRF/MHRD Fellowship, IIT Delhi | 2012
- National Merit Scholarship, Government of Odisha | 2002

Editorial Role

- Topic Editor, Frontiers in Forests and Global Change Research Topic: How Do Forest Management Cooperatives Impact Ecosystems and People? Link: <https://www.frontiersin.org/research-topics/42412>

Journal Publications (APA 7th)

- Tesfaye, T., & Nayak, D. (2022). Does participation in non-farm activities provide food security? Evidence from rural Ethiopia. *Cogent Social Sciences*, 8(1), 2108230.
<https://doi.org/10.1080/23311886.2022.2108230>
- Alam, R., & Nayak, D. (2024). Developing local support for wildlife conservation through community-based ecotourism: A study of Jim Corbett Tiger Reserve, India. *Tourism Planning & Development*.
<https://doi.org/10.1080/21568316.2024.2347227>
- Alam, R., & Nayak, D. (2024). Examining human-wildlife conflict and management strategies in Indian protected areas: Evidence from Jim Corbett Tiger Reserve. *Human Dimensions of Wildlife*, 30, 34–51.
- Tesfaye, T., & Nayak, D. (2022). Climate change adaptation measures by farm households in Gedeo Zone, Ethiopia: An application of multivariate analysis approach. *International Journal of Environment, Development and Sustainability*, 24(1), 1–18.
<https://doi.org/10.1007/s10668-022-02185-x>
- Walle, Y., & Nayak, D. (2021). How do local communities value forest conservation through participatory management? A case of Amhara Region, Ethiopia. *International Journal of Global Environmental Issues*, 20(1), 80–99.
- Walle, Y., & Nayak, D. (2020). Analyzing households' dependency on non-timber forest products, poverty alleviation potential, and socioeconomic drivers: Evidence from Metema and Quara Districts in the dry forests of Amhara Region, Ethiopia. *Journal of Sustainable Forestry*, 29(10), 1062–1082.
<https://doi.org/10.1080/10549811.2020.1867185>
- Nayak, D., & Upadhyay, V. (2016). Market vs ethics: Need for mid-path paradigm of conservation. *International Journal of Economics and Management Studies*, 3(5), 83–90.
- Alam, R., & Nayak, D. (2025). Analyzing tourists' preferences and willingness to pay for wildlife conservation using choice experimental modelling. *Environmental Economics and Policy Studies*.
<https://doi.org/10.1007/s10018-024-00436-x>
- Tessema, S. B., & Nayak, D. (2022). Analyzing the perceived prioritized forest ecosystem services under the participatory management: A case of Maksegnit District, Amhara Regional State, Ethiopia. *Trees, Forests and People*, 10, 100318.
<https://doi.org/10.1016/j.tfp.2022.100318>
- Kumar, S., & Nayak, D. (2025). Assessing the health costs of arsenic-contaminated drinking water in Bihar, India: A bivariate probit analysis. *Groundwater for Sustainable Development*, 29, 101429.
<https://doi.org/10.1016/j.gsd.2025.101429>
- Kumar, S., & Nayak, D. (2024). How do households living in arsenic-contaminated regions value safe drinking water in Western Bihar, India? *Groundwater for Sustainable Development*, 24, 1–12.
- Nayak, D., Puri, B., & Upadhyay, V. (2018). Recognising conservationism of the poor towards holistic sustainability: Study of an Indian national park. *International Journal of Global Environmental Issues*, 17(2/3), 230–261.
<https://doi.org/10.1504/IJGENVI.2018.10012362>
- Nayak, D., Upadhyay, V., & Puri, B. (2018). Tourism at protected areas: Sustainability or policy crunch? *IM Kozhikode Society & Management Review*, 8(2), 1–15.
<https://doi.org/10.1177/2277975218784795>
- Walle, Y., & Nayak, D. (2019). How can participatory forest management cooperatives be successful in forest resources conservation? An evidence from Ethiopia. *Journal of*

Sustainable Forestry, 38(9), 881–897.

<https://doi.org/10.1080/10549811.2019.1684950>

- Bajaj, A., Singh, S. P., & Nayak, D. (2022). Impact of water markets on equity and efficiency in irrigation water use: A systematic review and meta-analysis. *Agricultural Water Management*, 259, 107182.

- Alam, R., & Nayak, D. (2020). Trends and patterns of ecotourism research: practices and implications. *International Journal of Tourism Policy*, 10(4), 351–379.

- Alam, R., & Nayak, D. (2023). Microeconomic determinants of domestic tourism expenditure in India. *International Journal of Tourism Policy*, 13(2), 1–18.

<https://doi.org/10.1504/IJTP.2023.129826>

- Walle, Y., & Nayak, D. (2022). Factors determining the participation of natural resource cooperative members in forest management: A study of dry forest area in Ethiopia. *Trees, Forests & People*, 9, 100241.

<https://doi.org/10.1016/j.tfp.2022.100241>

- Bajaj, A., Singh, S. P., & Nayak, D. (2023). Are farmers willing to pay for groundwater irrigation? Insights from informal groundwater markets in Western Uttar Pradesh, India. *Agricultural Water Management*, 282, 108458.

<https://doi.org/10.1016/j.agwat.2023.108458>

Book Chapters & Conference Proceedings

- Nayak, D. (2023). Is India ready to account for ecological droughts? In V. P. Singh, D. Jhajharia, R. Mirabbasi, & R. Kumar (Eds.), *Integrated Drought Management* (pp. 1–18). CRC Press, Taylor & Francis Group.

- Alam, R., & Nayak, D. (2021). Socio-economic and environmental consequences of ecosystem services in the Indian Himalayan Protected Areas: A systematic review framework. *Proceedings of the 3rd International Conference Tourist*, Kasetsart University, Bangkok, Thailand.

- Bajaj, A., Singh, S. P., & Nayak, D. (2020). Groundwater governance and interplay of policies in India. In *Water Management and Water Governance Hydrological Modeling* (pp. 505–522). Springer.

- Nayak, D., Upadhyay, V., & Puri, B. (2014). Conservation reconsidered: Reevaluating conservation attempts of Indian National Parks – Case of Bhitarkanika National Park. *Proceedings of the 3rd International Conference on Economics and Social Sciences*, Durban Technical University, South Africa.

- Nayak, D., Upadhyay, V., & Puri, B. (2013). Valuating recreational functions of national park ecosystem services. In M. Siwach, A. Singh, & V. Upadhyay (Eds.), *Emerging Issues in the Political Economy of Development* (pp. 77–89). Nirmal Publishing House.

- Nayak, D., & Upadhyay, V. (2011). Strategy of integrating tourism at protected areas: Sustainability or policy crunch. *Proceedings of International Tourism Sustainability Conference*, University of Technology, Mauritius.

Research Projects

InTegrated Water Disaster Management in India and the Netherlands
Environmental Economics & Climate Economics / Public Policy | 24 Apr 2024
Funding: DST & NWO (Netherlands) | Outlay: ₹1.86 Crore
Team: Idhaya Chandhiran, Kasiviswanathan, Siddhartha Khare

Adaptation of Indigenous and Local Knowledge Systems and Fintech Solutions for Comprehensive Tribal Development
Public Policy / Development Economics | 01 Feb 2024
Funding: IIT Bhilai | Outlay: ₹3.35 Crore

Clean Cooking Fuel Energy at the Doorstep: Analyzing the Socioeconomic Impact of PMUY

in Hill and Plain Regions of Uttarakhand Environmental Economics | 05 Sep 2023 Funding: ICSSR, New Delhi | Outlay: ₹16.00 Lakhs

Assessment of Ecological Damage and NPV of Future Ecosystem Services Foregone Environmental Economics / Ecological Economics | 01 Jun 2022 Funding: Institute of Forest Biodiversity, Hyderabad | Outlay: ₹7.30 Lakhs

Teaching Engagements

- Environmental Economics (HSN 511, HSL 505)
- Economics (HSN 01)
- Issues in Indian Economy (IHS 303)
- Ecological Economics (HSN 604)
- Public Policy Analysis (HSN 513)

Student Supervisions

- Akshi Bajaj: Economics of Ground Water Governance (2017–2024)
- Yibeltal Walle: Economic Valuation of Dryland Forest Resources (2017–2021)
- Taye Tesfaye: Agricultural Adaptation Strategies to Climate Change in Ethiopia (2018–2022)
- Sushil Kumar: Economic Valuation of Arsenic Contamination in Groundwater (2017–2025)
- Shailesh Kumar: Estimation of Ecological Footprint in Indian States (2017–2025)
- Rather Hanan: Climate Change, Ecosystem Services and Livelihood Vulnerability in Kashmir (2022–2026)
- Rekha Bhatt: Assessment of Household Energy Patterns and Solar Readiness in Uttarakhand (2023–2027)
- Riyaz Alam: Evaluating Ecotourism and Ecosystem Services at Corbett National Park (2017–2023)
- Simegn Birhan Tessema: Participatory Forest Management and Ecosystem Services for Sustainable Forest Conservation in Ethiopia (2019–2023)

Memberships

- IUCN WCPA South Asia, Commission Member | 2021–2025
- Indian Society for Ecological Economics, Life Member | 2011–Present
- Orissa Economic Association, Life Member | 2007–Present
- Indian Political and Economic Association, Life Member | 2010–Present
- Association of Ravenshaw Economics Alumni (AREA), Life Member | 2013–Present
- International Society for Ecological Economics, Member | 2018–Present

MOOC / Online Course

- Coordinator: Introduction to Environmental Economics, NPTEL, MHRD, GoILink: <https://nptel.ac.in/courses/109107171>