

Curriculum Vitae

Naresh Khanal

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RESEARCH INTERESTS

Forest Resource Economics, Forest Policy, Forest Optimization, Forest Products Supply Chain, Sustainable Forest Management, Ecosystem Service Valuations, Use of GIS in Spatial Analysis.

EDUCATION

2023-2025 Master of Science (MSc) in Sustainable Forest Management, College of Forestry, Oregon State University. GPA: 3.79

2021-2023 Master of Science (MSc) in Forestry: College of Agriculture and Natural Resources, Michigan State University, Michigan, USA. GPA: 3.931

2015-2019 Bachelor of Science (BSc) in Forestry, Institute of Forestry, Pokhara Campus, Pokhara, Nepal. Tribhuvan University. GPA: Distinction (78.83%)

2012-2014 Intermediate in Science (ISc), Higher Secondary Education Board (HSEB) Nepal, Kathmandu, Nepal. GPA: First Division (73.10%)

2011 School Leaving Certificate (SLC), SLC Board, Government of Nepal. GPA: Distinction (84.25%)

PROFESSIONAL & RESEARCH EXPERIENCE

2023- **Graduate Research Assistant:** SSMART Forestry Lab, Oregon State University. MSc Thesis Project: From Restoration to Revenue: Identifying High-Risk Forests and Assessing the Economic Impact of Low-Value Timber in Mass Timber Production.

- Identified high-priority areas in the Blue Mountains region of Oregon requiring immediate restoration treatment to enhance wildfire resilience.
- Conducted geospatial analysis to determine forest regions at high wildfire risk and developed a framework for targeted restoration initiatives.
- Evaluated the economic viability of utilizing low-value timber from restoration treatments for mass timber production using IMPLAN modelling.
- Assessed the economic contributions of mass timber production to regional economies and quantified its potential for sustainable forest commodity markets.
- Collaborated with interdisciplinary teams to integrate ecological restoration goals with economic development strategies.

- 2023 **Graduate Research Assistant:** Natural Resource Economics and Social Sciences Lab, Michigan State University.
Thesis Title: “Assessing Market Reach and Competitiveness of Different Forest Commodities and Evaluating Potential Location, Feedstock Availability, and Economic Impacts of Mass Timber Production in Michigan.”
- Analyzed historical changes in market coverage and competition hotspots for key forest products—sawlogs, pulpwood, and wood biomass—across four decades (1980s, 1990s, 2000s, and 2010s) in Michigan.
 - Used spatial and network analysis in ArcGIS to map shifts in market reach and identify evolving competitive landscapes.
 - Quantified changes in procurement areas and supply chain dynamics for each product category over time.
 - Integrated these findings to assess feedstock availability and locate optimal sites for mass timber production.
 - Evaluated regional economic impacts using IMPLAN input-output modeling.
- 2022-2023 **Internship:** Michigan Department of Natural Resources (MDNR).
- Worked with a team studying the total demand and economic feasibility of mass timber production in Michigan.
 - Evaluated feedstock availability and identified optimal locations for establishing mass timber production facilities in Michigan.
 - Assisted in market analysis and the development of recommendations for promoting mass timber as a sustainable industry in Michigan.
- 2021 **Consultant:** Department of National Parks and Wildlife Conservation, Ministry of Forest and Soil Conservation, Nepal.
- Collaborated with a multidisciplinary team to formulate the *Dolphin Conservation Action Plan (2021–2025)* and the *Tiger Conservation Action Plan (2021–2025)*.
 - Conducted research, stakeholder meetings, and data analysis to identify key conservation priorities and strategies.
 - Focused on habitat restoration, human-wildlife conflict mitigation, and community engagement to support long-term conservation goals for dolphins and tigers.
- 2020 **Research Scholar:** Centre for Ecological Studies, Lalitpur, Nepal.
- Contributed to data collection, analysis, and reporting for ongoing wildlife monitoring programs in different parts of Nepal.
- 2019 **Researcher:** Ministry of Forest and Soil Conservation, Department of Forest Research, Nepal.

- Contributed to the project “Forest Inventory and General Volume Table Preparation in Scientific Forests of Lowland Nepal.”
- Collected and analyzed forest inventory data, including tree measurements and biomass estimations, to support sustainable forest management practice.

- 2019 **Internship:** Biome Health Project, led by WWF UK in collaboration with the Institute of Forestry (IOF).
- Participated in a research project aimed at providing new evidence on how biodiversity responds to human pressures and assessing the effectiveness of conservation interventions in Bardia National Park, Nepal.
 - Conducted field surveys and collected ecological data on biodiversity, habitat conditions, and human-wildlife interactions.
- 2019 **BSc Thesis Project:** Institute of Forestry (IOF), Pokhara, Nepal.
Title: Determinants of Tiger Prey Base Distribution and Relative Abundance in Bardia National Park and Adjoining Khata Corridor
- Assessed the distributional response of herbivore species along the gradient of human disturbance and protection regime in and around Bardia National Park, Nepal.
 - Conducted indirect sign-based occupancy surveys and line transect surveys based on a distance sampling framework.
- 2018 **President:** Union for Nature Conservation (UNC Nepal), a green organization working for nature conservation in Pokhara, Nepal.
- Led a green organization with the aim of nature conservation in the Pokhara region.
 - Led planning and implementation of conservation initiatives, such as wildlife protection, habitat restoration, and environmental school teaching programs around the Pokhara region.
 - Managed a team of volunteers and coordinated with local communities and stakeholders to promote sustainable practices and raise awareness about biodiversity conservation.
- 2017 **Coordinator:** National Wildlife Week 2017, Celebration Committee, Institute of Forestry, Tribhuvan University.
- Led the planning and organization of National Wildlife Week celebrations, focusing on raising awareness about wildlife conservation and environmental protection.
 - Coordinated events and organized seminars, workshops, and outreach activities, involving students, teachers, and local communities.

- Collaborated with government officials and conservation organizations to highlight key conservation issues and engage participants in discussions and educational programs.

2017 **Principal Investigator:** “Community-based human snow leopard conflict mitigation in Nepal Himalayas”.

- Studied strategies to minimize human-snow leopard conflicts around Shey Phoksundo National Park, Dolpa.
- Conducted household-level interviews to assess the extent of conflicts and developed recommendations for mitigation measures

2015 **Field Assistant:** River Dolphin Trust, Nepal.

- Worked with a team of researchers to study the population status and distribution of river dolphins in the Karnali River, Nepal.
- Conducted field surveys using observational techniques and data collection methods to assess dolphin habitat use and population trends.

2015 **Research Assistant:** BSc Thesis Project of Mr. Gopal Khanal

Title: “Role of multi-use forests in providing habitat for tiger occurrences in Bardia National Park and Khata forest corridor, Nepal”.

- Assisted in conducting field research to assess the role of multi-use forests in supporting tiger populations in Bardia National Park and the Khata Forest Corridor.
- Collected data on tiger distribution, prey availability, and habitat conditions through camera trap surveys and direct observations.

2015 **Research Assistant:** BSc Thesis Project of Mr. Deepak Mahatara

Title: “Zero Poaching in Nepal: Evaluating the Effectiveness of Anti-Poaching Operations for Rhinoceros and Assessing the Modality for Its Sustainability in Chitwan National Park.”

- Assisted in evaluating the effectiveness of anti-poaching strategies aimed at protecting rhino populations in Chitwan National Park.
- Conducted interviews with park rangers, local communities, and conservation officers to assess the operational challenges and successes of anti-poaching efforts.

AWARDS & GRANTS

2024 **Dean’s Investment Fund Award for International Engagement,** Oregon State University.

- Award Amount: \$2000.

2024 **J. Richard Dilworth Graduate Award in Forestry,** Oregon State University.

- Award Amount: \$1000.
- 2024 **Oregon Lottery Graduate Scholarship**, Oregon State University Graduate School.
- Award Amount: \$3000.
- 2023 **Alfred W. Moltke Memorial Fellowship**, Oregon State University.
- Award Amount: \$8000.
- 2022 **First Poster Award**, International Society of Forest Resource Economics (ISFRE) Conference 2022, Traverse City, Michigan.
Title: Identifying Optimal Locations for Establishing Mass Timber Processing Facilities in Michigan.
- Award Amount: \$250
- 2022 **Graduate Office Fellowship (GOF)**, College of Agriculture and Natural Resources, Department of Forestry, Michigan State University.
- Award Amount: \$2500
- 2022 **Thesis Grant**: My thesis was funded partially by **the** Michigan Department of Natural Resources (MDNR), USDA National Institute of Food and Agriculture, McIntire-Stennis project MICL06035, and Michigan State University AgBioResearch.
- 2021 **Graduate Office Fellowship (GOF)**, College of Agriculture and Natural Resources, Department of Forestry, Michigan State University.
- Award Amount: \$1500.
- 2019 **Thesis Grant**, Ministry of Industry, Tourism, Forest, and Environment, Karnali Province, Nepal.
Title: Distributional Response of Herbivore Species Along the Gradient of Human Disturbance and Protection Regime in and Around Bardia National Park.
- Award Amount: NRs: 35,000.
- 2019 **Second Runner-up on Thesis Defence competition**, Institute of Forestry, Pokhara
Title: “Distributional Response of Herbivore Species Along the Gradient of Human Disturbance and Protection Regime in and Around Bardia National Park”.
- Award Amount: NRs. 1000.
- 2017-18 **Rufford Small Grant, UK**
Title: Mapping conflict hotspots to reduce human-wildlife conflict in Bardia National Park and its adjoining Khata Forest Corridor, Nepal. (Co-PI).
- Award Amount: £5000.
- 2017 **Keidanren Nature Conservation Fund, Japan**, Title: Community-based human snow leopard conflict mitigation in Nepal Himalayas.
- Award Amount: JPY 1,000,000.
- 2015 **General Scholarship**, Institute of Forestry, Pokhara, Nepal, BSc Forestry, Tribhuvan University, IOF Pokhara Campus, Nepal.
- 100% scholarship for studying the Bachelor of Forestry Science.

- 2015 **First place in Presentation Competition** on “Threats to Pangolin”, Institute of Forestry, Pokhara.
- Award Amount: NRs. 5000.
- 2015 **First place in debate competition** on “Conservation vs. Development”, Institute of Forestry, Pokhara, 2015.
- Award Amount: NRs: 1000.
- 2011 **First place in Inter School Speech Competition** on “Climate Change and its Impacts”, organized by Eurasiya Reiyukai Tikapur branch.
- Award Amount: NRs. 2000.

CONFERENCE PRESENTATIONS & ATTENDANCE

- 2025 **Participant:** “Bioenergy from forests - Pacific Northwest Field Dialogue”. September 16-20, 2025.
- 2024 **Oral Presentation:** “*Economic impact assessment of utilizing low-value wood from Malheur National Forest for mass timber production*”. EDA Smart Forestry Fall Meeting, Johnday, Oregon. September 23-24, 2024.
- 2024 **Oral Presentation:** “*Assessing impacts on the local economy of Michigan from mass timber production*” International Union of Forest Research Organizations (IUFRO) World Forestry Congress, Stockholm, Sweden. June 23-29, 2024.
- 2024 **Participant:** 2024 Council on Forest Engineering (COFE) Annual Meeting, Moscow, Idaho (May 22-24,2024)
- 2024 **Poster Presentation:** “*Economic impact assessment of utilizing small diameter wood for mass timber production in Oregon and Washington*” International Mass Timber Conference, Portland Oregon (March 26-28, 2024)
- 2024 **Participant:** 86th Annual Oregon Loggers Conference, Eugene, Oregon. February 22-24, 2024.
- 2023 **Poster presentation:** “*Assessing the market coverage of different wood products in Michigan*”. Society of American Foresters (SAF) National Convention, Sacramento, California. October 25-28, 2023.
- 2023 **Oral Presentation:** *Analysis of location, feedstock availability, and economic contributions of a mass timber manufacturing plant in Michigan.* International Society of Forest Resource Economics (ISFRE) Conference 2023, Houston, Texas. May 15-17, 2023.

- 2023 **Poster Presentation:** “*Historical trend of market coverage and competition of various wood products in Michigan*”.
International Society of Forest Resource Economics (ISFRE) Conference 2023, Houston, Texas. May 15-17, 2023.
- 2023 **Oral Presentation:** “*Between Extinction and Existence, a success story of wildlife species recovery in Nepal*”.
Biology on TAP, Lansing, Michigan. February 2, 2023.
- 2022 **Poster Presentation:** “*Assessing the market coverage of different wood products in Michigan*”.
Society of American Foresters (SAF) National Convention 2022, Baltimore, Maryland. September 20-24, 2024.
- 2022 **Oral Presentation:** “*Locating optimal locations and economic impact assessment of establishing mass timber processing facilities in Michigan*”.
Society of American Foresters (SAF) National Convention 2022, Baltimore, Maryland. September 20-24, 2024.
- 2022 **Oral Presentation:** “*Market Coverage and Competition of Various Wood Products in Michigan*”.
Association of Natural Resource Extension Professionals (ANREP) Conference 2022, Kalamazoo, Michigan. May 31- June 3, 2022.
- 2022 **Oral Presentation:** “*Market coverage and competition of various wood products in Michigan*”.
International Society of Forest Resource Economics (ISFRE) Conference 2022, Traverse City, Michigan. May 23-25, 2022.
- 2022 **Poster Presentation:** “*Identifying optimal locations for establishing mass timber processing facilities in Michigan*”.
International Society of Forest Resource Economics (ISFRE) Conference 2022, Traverse City, Michigan. May 23-25, 2022.
- 2021 **Oral Presentation:** “*Geographic history and opportunities and challenges of managing Chure Range of Nepal*”.
Institute of Forestry, Tribhuvan University, Nepal. June 2, 2021.
- 2016 **Poster presentation:** “*Zero poaching in Nepal- evaluating the effectiveness of anti-poaching operations of Rhinoceros and assessing the modality for its sustainability*”.
Student Conference on Conservation Science (SCCS), China. November 4-10, 2016.

- 2016 **Participant:** Young Ecologist Talk, and Interact (YETI), Amity University, New Delhi, India. January 17-20, 2016.
- 2015 **Oral Presentation:** Presentation competition on the topic “Threats to pangolins”. National Wildlife Week- 2015, Institute of Forestry, Tribhuvan University. April 18, 2015.

PUBLISHED RESEARCH ARTICLES

- 2024 Analysis of locations, feedstock availability, and economic impacts of mass timber production in Michigan, Forest Policy and Economics Volume 163, June 2024, 103203.

RESEARCH ARTICLES (IN PREPARATION)

- 2025 Historical Change of Forest Products Historical Trend of Market Coverage and Competition of Various Wood Products in Michigan. Target Journal: Journal of Forestry
- 2025 Economic impact assessment of utilizing low-value wood products from Umatilla National Forest for forest restoration operations. Target Journal: Forest Policy and Economics

TRAINING & WORKSHOPS (SELECTED)

- 2022: Economic Impact Analysis for Planning (IMPLAN): Learning about Economic Input-Output Modelling applications, data, and solutions.
- 2018 Training Workshop on South Asian River Dolphins: Ecology and Conservation, at T.M. Bhagalpur University, Bihar, India. Learned about dolphin survey methods and basic study design principles in ecological research.
- 2016 Writing Grants in Ecological Sciences. Young Ecologists Talk and Interact (YETI), Delhi, India. January 18, 2016.
- 2016 Managing research workflow: An introduction to reference management to learn, discover, and write up your research. Young Ecologists Talk and Interact (YETI), Delhi, India. January 19, 2016.

PROFESSIONAL AFFILIATIONS

- 2024 **Communication Officer**, Graduate Student Council (GSC), College of Forestry, Oregon State University.
- 2024 **Communication Officer**, International Forestry Students’ Association (IFSA), Oregon State University

- 2023 **Student Member**, Society of American Foresters (SAF)
2022 **Council of Graduate Students (CGS)**, Department of Forestry, Michigan State University
2019 **Nepal Foresters' Association (NFA)**, Nepal.
2018 **Society for Conservation Biology (SCB)**, Nepal Chapter.
2017 **Bird Conservation Society (BCN) Nepal**, Institute of Forestry, Tribhuvan University, Nepal.

TEACHING EXPERIENCE

- 2025 Forest Operation Analysis (Course code: FE 550), Teaching Assistant, Oregon State University.
2023 Forest Resource Economics and Management (Course code: FOR 462), Teaching Assistant, Michigan State University.

FIELD RESEARCH EXPERIENCE

Tree Identification & Forest Inventory: Conducted field surveys for tree identification and forest inventory, focusing on species such as *Shorea robusta* and other key forest species.

General Volume Table Preparation: Assisted in preparing general volume tables for various tree species, contributing to forest management and timber estimation efforts.

Social Surveys: Conducted social surveys to understand human-forest interactions at various levels, assessing local perceptions and practices related to forest resource use and conservation.

Forest Biometrics & Plant Identification: Carried out forest biometrics, including tree measurement and density analysis, and identified plant species across diverse habitats to support ecological studies and conservation planning.

Transect Surveys: Performed line transect surveys for data collection on forest structure, vegetation types, and species distribution.

Camera Trapping: Used camera traps to monitor wildlife populations and behaviour, enhancing data collection on elusive and nocturnal species.

Direct and Indirect Sign Surveys: Conducted direct observation and indirect sign surveys (e.g., tracks, droppings) to estimate wildlife presence and behaviour patterns in forested environments.

SOFTWARE PROFICIENCY

ArcGIS: Utilized for spatial data analysis and mapping in forest inventory and environmental research projects.

PRESENCE: Applied for wildlife occupancy modelling and analysis of species distribution patterns.

Mendeley: Managed research references and citations for academic publications and reports.

R Statistical Software: Used for statistical analysis, data visualization, and modelling in various research projects.

Stata: Applied for econometric analysis, including regression models and data processing in economic studies.

IMPLAN: Used for economic impact analysis and input-output modelling for forestry economics.

SPSS: Applied for statistical analysis, including hypothesis testing, regression analysis, and data management in ecological and social science studies.

VS Studio: Utilized for developing and debugging code, particularly in Python and R for research automation and data analysis tasks.

Anaconda: Used for managing Python environments and packages, particularly for data analysis, machine learning, and scientific computing for my research.

Woodstock: Used for forestry growth and yield modelling for resource planning in my coursework.

OTHER ACHIEVEMENTS

2011 First Position, Inter-School Football Tournament. Timarpur Kailali

2013-2020 Published readers' comments in different newspapers in Nepal.