

SANJEEB BHATTARAI

Assistant Professor (Asst. Prof.), Institute of Forestry (IoF), Hetauda

EDUCATION

- Sep 2022
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May 2023
- **Post-Graduate Diploma (Remote Sensing and Geographical Information System)**
Indian Institute of Remote Sensing (IIRS)  Dehradun, India

Funded by: UN Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP) Scholarship

 - **MSc (Agroforestry)**
School of the Environment, Natural Resources and Geography (SENTRY), Bangor University  Wales, UK

Thesis: Spatially explicit assessment of tradeoffs and synergies amongst key ecosystem services in Sasumua watershed, Kenya

 - **MSc (Agricultural Development)**
Faculty of Life Sciences (LIFE), University of Copenhagen  Copenhagen, Denmark

Includes a course on Environmental Impact Assessment (EIA) (7.5 ECTS).

The Double Degrees were jointly offered by EU's Erasmus Mundus Scholarship under MSc Sustainable Tropical Forestry (SUTROFOR) Program

 - **BSc (Forestry)**
Institute of Forestry (IOF), Tribhuvan University  Pokhara

Dissertation title: Comparison between conventional and GIS-based Community Forest Operation Planning (CFOP)

 - **Technical Certificate Level (Forestry)**
Institute of Forestry (IOF), Tribhuvan University  Hetauda-10

EMPLOYMENT RECORD

- To date
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Mar 2021
- **Assistant Professor**
Institute of Forestry (IOF), Tribhuvan University  Hetauda
 - Teaching
 - Evaluation of academic and research performances
 - Publication of research articles
 - Supervision of research and intern students

CONTACT INFO

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 Institute of Forestry (IoF)

Hetauda Campus (HC)

Tribhuvan University (TU)

Hetauda-10, Makawanpur

GUEST LECTURES

Postgraduate levels

-MSc Program Coordinator at IOF HC (Sep 2023-Jul 2024)

- Selected units of Silviculture, Quantitative Ecology and Research Methods at Dean Office, Institute of Forestry (IOF), Tribhuvan University (TU) Kirtipur (Jun 2019-Oct 2020)

- Major part of Silviculture course of MSc (NRM) at Nepal Engineering College (NEC), Kathmandu, Pokhara University (PU) (Apr-Sep 2021)

- Major part of Research Methodology in Agroforestry course of MSc (Agroforestry) at Lumbini Buddhist University (LBU), Lumbini (the birthplace of the Buddha), Nepal (Apr-Aug 2021)

- Database management practical at IOF, Pokhara, TU (Apr-Dec 2009)

Undergraduate levels

- Agroforestry course at IOF, Pokhara, TU (Mar-May 2016)

- GIS practical at IOF, Pokhara, TU ^{1/8} (Sep 2005)

To date
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Sep 2005

Forestry and Environment Expert

Independent and intermittently

📍 Various parts of Nepal

- Study team member *Determining Appropriate Plot Size for Forest Resource Inventory and Biodiversity Monitoring in Madhesh Pradesh, Terai, Nepal* study carried out on behalf of Forest Research and Training Centre (FRTC), Madhesh Province, Nepal and implemented by Institute of Forestry (IOF), Hetauda Campus (FY 2024/25)
- Lead Researcher *Development of a decision support system for the agroforestry suitability in Madhesh Province* stud carried out for Forest Research and Training Centre (FRTC), Madhesh Province, Nepal (FY 2023/24)
- Study team member *Assessment of goods and services and employment opportunities provided by forestry sector in Koshi Province, Nepal* implemented by Institute of Forestry (IOF), on behalf of Ministry of Tourism, Forests and Environment Koshi Province, Government of Nepal (May-Aug 2024)
- MSc Field Course coordinator for *Erasmus Mundus MSc in Global Forestry (GLOFOR)* implemented by Institute of Forestry (IOF), in collaboration with GLOFOR Consortium Secretary Copenhagen University, Denmark (Nov 2023-Mar 2024)
- Study team leader *Long-Term Strategy (LTS) for Emissions from Forestry Sector of Nepal* commissioned by Oxford Policy Management Limited (OPML), on behalf of Ministry of Forest and Environment (MoFE), Government of Nepal (May-Aug 2021)
- Consultancy Support for *Feasibility of Wood-based Infrastructure in Earthquake-prone Urban Himalaya: Assessing the Current Situation, Opportunities, and Challenges, and Developing a Long-term Strategy* for Centre for International Forestry Research (CIFOR), Indonesia (Dec 2020-Feb 2021)
- Study team leader *Study on the Potentiality of the Export of Timber* commissioned by Ministry of Industry, Commerce and Supplies (MoICS), Government of Nepal (Sep-Nov 2020)
- Development of Terms of Reference (ToR) and scoping for EIA of *Sunkoshi Hydroelectricity-2* (1,110 MW) and 3 (536 MW) (Sindhuli, Ramechhap and Kabhre Palanchok and Sindhupalchok districts) (Oct 2019-Nov 2020)
- IEE of *Seti River Bridge Project* (80 m), Pokhara, Kaski (Jan-Mar 2020)
- IEE of *Butwal-Dhakhadi Transmission Line Project* 33 kV (28.95 km alignment) (Sep-Dec 2018)
- Development of ToR and scoping of *Badigad Khola Hydropower Project* (24.6 MW), Baglung and Gulmi districts (Aug-Dec 2018)
- *Visiting lecturer and facilitator* for professional, post-graduate and under-graduate courses related to forestry, ecology and environmental sciences at TU, Pokhara University (PU) and Forest Research and Training Center, Government of Nepal (Sep-2005 to date)

Professional skills:

Strong grasp in developing and implementing tools and techniques for integrated environmental and social studies; advanced expertise in managing, integrating, processing, reporting and disseminating information and data gathered from employment of such tools and techniques

Language skills:

Nepali (mother tongue), English (advance), Spanish (intermediate), *Maithili* (advance) and Hindi (intermediate)

Remarkable accomplishments:

- Facilitated Stakeholder Forum Workshop on a Voluntary National Draft Quality-of-governance Standard for the Forest Sector and REDD+ in Nepal University of Southern Queensland, Australia and Institute of Global Environment Strategy (IGES), Japan (Oct-Dec 2011)
- Development and planning of a GEF funded ecosystem services certification project implemented at landscape scales in four tropical countries, including Nepal (Jul-Dec 2011)
- Facilitated Human Ecology part of Nepal Residential for Future Generations Graduate School, October, 2011 in Dolakha, Nepal. Future Generations, Franklin, WV 26807 USA (Oct 2011)

Mar 2021
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Oct 2017

Assistant Professor

Kathmandu Forestry College (KAFCOL) [affiliated to TU]

📍 Kathmandu

- Teaching
- Supervision and evaluation of research students
- Research project development, fund raising and project implementation
- Publication of research articles

- Jan 2012
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Dec 2015

● **Research Associate**
Tropical Agricultural Research and Higher Education Center (CATIE), Wageningen University (WUR) and Montpellier SupAgro
📍 Costa Rica, the Netherlands, and France

 - Management of field operations
 - Database management, data analysis, reporting and publication
 - Development of research tools for diverse environmental and socio-economic data collection
 - Supervision and training
 - Evidence-based reporting

- Dec 2011
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Nov 2009

● **Program Manager (started as Research Officer [Data Analyst])**
Asia Network for Sustainable Agriculture and Bioresources (ANSAB)
📍 Kathmandu

 - Management of field operations
 - Database management, data analysis, reporting and publication
 - Development of research tools for diverse environmental and socio-economic data collection
 - Supervision and training
 - Evidence-based reporting

- Sep 2009
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Sept 2007

● **Student Research Assistant (mostly worked remotely)**
Department of Forest and Landscape, University of Copenhagen
📍 Copenhagen, Denmark

 - Maintenance of database
 - Reporting and publication
 - Data cleaning and analysis

- Aug 2007
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Sep 2004

● **Research Assistant**
Community Based Natural Forest and Tree Management in the Himalaya (ComForM) - A joint project between Department of Forest and Landscape, University of Copenhagen and Institute of Forestry (IOF), Tribhuvan University (TU)
📍 Pokhara

 - Development of research protocol
 - Development and management of databases,
 - Establishment of permanent forest sample plots
 - Analysis of diverse bio-physical and socio-economic data and information
 - Collection of seasonal bio-physical and socioeconomic data

- Oct 2001
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Feb 1998

● **Government Forest Ranger**
Department of Forest, Government of Nepal
📍 District Forest Offices in Arghakhanchi, Kaski and Syangja districts

 - Facilitating Community Forestry Users Groups (CFUGs) in planning, implementation and revision of forest and community development works

- Feb 1998
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May 1997

● **Environment Volunteer**
Sagarmatha Community Development Center
📍 Rajbiraj, Saptari

Remarkable accomplishments:

- Collection, management and analysis of large-scale environmental and socio-economical data for a premier long-term global poverty-environment research (Centre for International Forestry Research [CIFOR]'s Poverty and Environment Network (2004-2009))
- Involved as a trainee, resource person, trainer, and coordinator in a number of events (training, workshops, study tours etc.) related to Community Forestry and organized by different District Forest Offices and Forest Training Centers of Nepal (1998-2001)
- Involved in raising public awareness on environmental issues (1997-1998), which continued by serving in student-run non-profit volunteer organization Self-Help Environment Awareness Camp (SHEAC), from general member through secretary to president while a under-graduate student (2001-2005)

 PUBLICATIONS AND PRESENTATIONS

- 2024 ● **Agroforestry: An Inspirational Case of Diversified Farmers Capitalizing Land Use, Land Use Change and Forestry (LULUCF) for Climate Mitigation: Opportunities and Challenges in Nepal.**
Policy Briefs on Agricultural Transformation POLICY RESEARCH CAPACITY AND INFLUENCE (PRCI):NEPAL ACTIVITY IFPRI
 S. Bhattarai
- 2023 ● **Income and Climate Change Adaptation Strategy in the Mid-hills of Central Nepal.**
Forestry (Journal of Institute of Forestry, Nepal) Vol. 20, pp. 1-11
 Bhattarai, A., K. Pandey, G. Paoudel, S. Bhattarai
- 2022 ● **A comparison of Landsat-8 and Sentinel-2 spectral indices for estimating aboveground forest carbon in a community forest.**
Forestry (Journal of Institute of Forestry, Nepal) Vol. 19, pp. 40-55
 KC, A., S. Bhattarai, P. Pandey
- 2022 ● **Existing Agroforestry Practices and Their Contribution to the Socio-economic Condition of the People of West Nawalparasi, Nepal- A case study.**
Archives of Agriculture and Environmental Science Vol. 7 No. 1, pp. 132-141
 Pokharel, S., S. Bhattarai, R. Adhikari, S. Jha, A. Pokhrel, M. Parajuli
- 2021 ● **Exploring agroforestry systems and practices in the Terai and hill regions of Nepal.**
Banko Janakari Vol. 31 No. 2, pp. 3-12
 Ulak S., B. Lama, D. K. Pradhan, S. Bhattarai
- 2020 ● **Breeding Seasonality of Chital (*Axis axis*) in the Hetauda Valley of Nepal.**
Forestry (Journal of Institute of Forestry, Nepal) No. 17, pp. 174-183
 Bhusal A., B. Neupane, S. Bhattarai, A. Kapali, S. Bhatta, S. Bajagain
- 2020 ● **Crown Openness and Regeneration Status in Pine Forest**
Int J Environ Sci Nat Res, Volume 25(1)
 Bhattarai S., S. Bhattarai, and M. R. Bhandari
- 2017 ● **Combining Farm Typology and Yield Gap Analysis to Identify Major Variables Limiting Yields in the Highland Coffee Systems of Llano Bonito, Costa Rica.**
Agric, Ecosys and Environm, Volume 243, pp. 132-142
 Bhattarai S., S. Alvarez, C. Gary, W. Rossing, P. Tittone, and B. Rapidel

- 2014 ● **Interactions between Household and Plot Characteristics in Generation of Ecosystem Services from Coffee Agro-ecosystems of Small Holders in Llano Bonito, Costa Rica**
Paper presentation at the 7th Ecosystem Services Partnership (ESP) Conference, 08-12 September
 San José, Costa Rica
 Bhattarai S., C. Allinne, J. Avelino, C. Gary, W. Rossing, P. Tiftonell, and B. Rapidel
- 2014 ● **Interactions between Site, Coffee Plant and Shade Tree Characteristics in Coffee Agro-ecosystem of Llano Bonito, Costa Rica**
Poster presentation at the 4th World Congress on Agroforestry, 10-14 February
 New Delhi, India
 Bhattarai S., C. Gary, W. Rossing, P. Tiftonell, and B. Rapidel
- 2011 ● **Climate Change Adaptation and Mitigation through Community-based Sustainable Management of Forests in Nepal**
In Mountain Forests in a Changing World - Realizing values, addressing challenges, ed Price et al. UNFAO/MPS and SDC, Rome: 66.
 Subedi B. P., S. Bhattarai, and S. Khanal
- 2011 ● **Methods to Assess What is 'Realistic' in the Context of Payment of Environmental Services (PES)**
In Trees, livelihoods, current and future climate variability: Methods and Approaches for Linking Knowledge with Action in Adaptation to Climate Change through Support for Landscape Multifunctionality, ed. M. v. Noordwijk, M. H. Hoang, H. Neufeldt, I. Oborn and T. Yatich. World Agroforestry Centre, South East Asia (ICRAF-SEA), Bogor, Indonesia.
 Leimona, B, M. v. Noordwijk, L. Joshi, D. Catacutan, T. Yatich, J. Dietz, H. Mwangi, J. M. Gathenya, C. Mathuri, F. Sinclair, S. Bhattarai, L. Onyango...
- 2011 ● **District Level Evaluation of REDD Potential Based on Crown Cover and Carbon Density in Nepal (in Nepali)**
Hamro Ban Sampada (in Nepali), Volume 8, Number 2. pp. 124-136.
 S. Bhattarai, E. Rana, and R. Tamrakar
- 2010 ● **Guidelines for Measuring Carbon Stocks in Community-managed Forests**
 ANSAB, FECOFUN, ICIMOD, NORAD ISBN: 978-9937-2-2612-7. pp 69+10
 Subedi B. P., S. S. Pandey, A. Pandey, E. B. Rana, Bhattarai, S., T. R. Banskota, S. Charmakar, and R. Tamrakar

Remarkable accomplishments:
 Premier guidelines developed to quantify forest carbon in participatory contexts, which is extensively referred to (or cited) for developing other similar guidelines globally. Most importantly, adopted by the Government of Nepal while developing similar national guidelines (2011), and for Forest Resources Assessment (FRA), Nepal (2019)

Remarkable accomplishments: Led technical team in implementing premier Reducing Emissions from Deforestation and Forest Degradation (REDD+) project partnering between Asia Network for Sustainable Agriculture and Bioresources (ANSAB), International Centre for Integrated Mountain Development (ICIMOD) and Federation of community Forestry Users Nepal (FECOFUN), and piloted in the context of Community Forests of Nepal with funding from Norwegian Agency for Development Cooperation (NORAD) (Nov 2009 - Dec 2011)

- 2010 ● **The Role of Forest Products with Increasing Urbanization**
Paper presented in A National Conference on Forest-People Interaction. 7-8 June
📍 Institute of Forestry, Pokhara, Nepal
 Larsen H. O., L. Herslund, B. B. Khanal Chhetri, L. Puri, S. Bhattarai, and N. Gautam
- 2008 ● **Collection and Use of Wild Edible Fungi in Nepal**
Econ. Bot., Volume 62, Number 1. pp. 12-23.
 Christensen M., S. Bhattarai, S. Devkota, and H. O. Larsen
- 2008 ● **Use of Wild Edible Mushrooms in the Annapurna Conservation Area, Nepal**
Jour. Mycol. Phytopath. Soc. Nep., Volume 1, pp. 1-6.
 Christensen M., S. Devkota, and S. Bhattarai
- 2007 ● **Addressing the Needs for Forestry Research and Education in Nepal: IOF/ComForM Project End-of-phase I Project Status & Design of Phase II**
 Institute of Forestry, Tribhuvan University, Nepal
 Larsen H.O., A. K. Das, and S. Bhattarai
- 2006 ● **Collection of Wild Edible Fungi in Nepal**
Poster presentation at the 8th International Mycological Congress, 20-25 August
📍 Cairns, Australia
 Christensen M., H. O. Larsen, S. Devkota, and S. Bhattarai
- 2005 ● **A Statistical Evaluation of Community Forest Inventory Data: Examples from Six *Schima-Castanopsis* Forests**
Forestry (Journal of Institute of Forestry, Nepal), No. 13, pp 19-28
 Meilby H., M. Christensen, and S. Bhattarai



PROFESSIONAL TRAINING AND COURSES

- 2024 ● **Forest Carbon Dynamics Assessment Using Earth Observation Data**
 02-06 September 📍 Online
 Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP), Indian Institute of Remote Sensing (IIRS), Dehradun (India) (Affiliated to the United Nations)
- 2023 ● **Open-Source GIS Technology & Geoweb Services**
 04-15 September 📍 Online
 Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP), Indian Institute of Remote Sensing (IIRS), Dehradun (India) (Affiliated to the United Nations)

- 2021 ● **Recent Advances in Space Applications for Forest Monitoring and Assessment**
 12-16 April 📍 Online
 Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP), Indian Institute of Remote Sensing (IIRS), Dehradun (India) (Affiliated to the United Nations)
- 2021 ● **Online Special Seminar on Forest Resources & Mathematical Modeling with R**
 16-17 March 📍 Online
 Institute of Statistical Mathematics, Japan; on behalf of Asian Agri-Forest Resource Management Research Consortium (AgFReM)
- 2020 ● **Pest Risk Analysis (Project: UN-FAO/TCP/NEP/3702)**
 23-27 November 📍 Online
 Forest Research and Training Center (FRTC), Government of Nepal
- 2020 ● **Reproducible Templates for Analysis and Dissemination**
 October 📍 Online
 Course authorized by Emory University and offered through Coursera
- 2020 ● **Coursera Administrator Training**
 August 📍 Online
 Course authorized by Coursera and offered through Coursera
- 2020 ● **Build Data Analysis tools using R and DPLYR**
 July 📍 Online
 Course authorized by Coursera Project Network and offered through Coursera
- 2019 ● **Techniques in Forest Entomology and Intensive Pest Management (Project: UN-FAO/TCP/NEP/3702)**
 07-12 December 📍 Kathmandu
 Forest Research and Training Center (FRTC), Government of Nepal
- 2018 ● **Hands-on Workshop with Google Earth Engine (GEE): Training in Accessing and Analyzing Annual, Nation-wide Tree Cover Data**
 3-4 December 📍 Kathmandu
 Land Cover Land Use Change (LCLUC) Program of National Aeronautics and Space Administration (NASA), USA.
- 2018 ● **Training of Trainers on Silviculture and Forest Management**
 27 May- 10 June 📍 Various parts of Nepal
 Silviculture Division of Department of Forests, Government of Nepal
- 2014 ● **An Introduction to TESSA: the Toolkit for Ecosystem Service Site-based Assessment**
 06-07 September 📍 San Jose, Costa Rica
 Organized by Birdlife International and World Conservation Monitoring Centre (UK)

Remarkable accomplishments: Was able to develop customized course program page (with own logo, course suggestions etc.) on Coursera online learning platform, and invited and enabled about 200 learners to choose and take online classes and earn free certificates during lock-down resulted due to COVID-19 pandemic (July-Dec 2020)

Resource person:
 On topics related to principles and practices of silviculture on “On the Job Training” of newly recruited forest officers at Forest Research and Training Center, Babarmahal, Ministry of Forests and Environment, Government of Nepal (Dec 2019)

- 2014 ● **Integrated Valuation of Environmental Services and Tradeoffs (InVest)**
 03-04 September 📍 Turrialba Costa Rica
 Organized by the Natural Capital (NatCap) Project at Stanford University and WWF, US
- 2013 ● **Model Thinking**
 September 📍 Online
 Course authorized by University of Michigan and offered through Coursera
- 2011 ● **Linking Community Monitoring to National MRV for REDD+**
 12-14 September 📍 Mexico City, Mexico
 Organized by Forest Carbon Partnership Facility (FCPF) of World Bank and Centro de Investigaciones en Geografía Ambiental (UNAM) Mexico
- 2011 ● **Use of Geo-informatics for Mapping and Modeling Forest Carbon Stocks in Nepal**
 16-20 May 📍 Kathmandu
 Organized by International Centre for Integrated Mountain Development (ICIMOD) and Faculty of Geo-information Science and Earth Observation (ITC), the Netherlands
- 2009 ● **Hydrological and Carbon Stock Appraisal Tools in the context of Payment for Environmental Services (PES)**
 20-30 October 📍 Kathmandu
 Organized by International Centre for Integrated Mountain Development (ICIMOD) and World Agroforestry Centre (ICRAF), South East Asia
- 2009 ● **Spatially Explicit Assessment of Tradeoffs and Synergies amongst Key Ecosystem Services in Sasumua watershed**
 Apr-Sep 📍 Nairobi, Kenya
 Worked on MSc Reserch Project with fellowship from World Agroforestry Center (ICRAF), and based at its Headquarters
- 2008 ● **Sustainable Tropical Forestry (SUTROFOR) Joint Summer Module**
 28 July- 08 August 📍 Various places in Costa Rica
 Organized by Tropical Agricultural Research and Higher Education Centre (CATIE), Costa Rica
- 2008 ● **Youth Encounter for Sustainability (YES)**
 05-20 July 📍 Braunwald, Switzerland
 Organized by ETHsustainability - Center for Sustainability at ETH Zurich, Switzerland
- 2008 ● **Understanding Self-Sufficiency: Socio-economic and Natural Resources Sustainability of a Land Reform Program**
 05-17 March 📍 Ban Klong Bong Phattana, Thailand
 Interdisciplinary Land Use and Natural Resource Management Program, University of Copenhagen, Denmark

Countries with professional and/or academic experiences:
 Nepal, Costa Rica, the Netherlands, France, UK, Denmark, Kenya, Thailand, India, Switzerland and Mexico