

Bishwa Prakash Puri

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workbishwa.github.io/imBishwa/

Raised in Nepal's Koshi Basin, I am driven to address environmental and agricultural challenges through interdisciplinary research. My expertise in climate data analysis, hydrological modeling, and network science, combined with proficiency in Python, R, and GIS, supports my focus on sustainable adaptation. As an environmental consultant and assistant lecturer, I have applied my skills in multi-hazard risk assessment and social network analysis to inform community-focused solutions. My research on climate impacts and agricultural transitions in the Koshi Basin aligns with the PhD's aim to enhance climate adaptation in the Murray-Darling Basin by leveraging landholder networks and incentive structures.

EDUCATION

Tribhuvan University (MSc.)

2024

College of Applied Sciences-Nepal, Kathmandu, Nepal
Master of Science in Environmental Science

Tribhuvan University (BSc.)

2019

Tri-Chandra Multiple Campus, Kathmandu, Nepal
Bachelor of Science in Environmental Science

ACADEMIC EXPERIENCE

College of Applied Sciences-Nepal

Kathmandu, Nepal

Assistant Lecturer

November 2024–January 2025

- Teaching Environmental Modeling to MSc 4th-semester students, focusing on hydrological modeling (HEC-HMS, HEC-RAS), climate modeling (SDSM), and geospatial analysis (GIS).
- Designing and delivering lectures, leading hands-on practical sessions, and mentoring students in applying modeling tools to environmental challenges.
- Serving as a thesis co-supervisor, guiding research projects and ensuring academic and professional excellence.

PROFESSIONAL EXPERIENCE

Freelancer

Nepal

Environmental Consultant, Researcher, Business Development Consultant

August 2024–Present

- Preparation of EIA, IEE, and Monitoring Reports for hydropower projects.
- Conduct fieldwork and assess environmental impacts of hydroelectric projects.
- Consultations with stakeholders.
- Preparation and presentations of reports.
- Business development and growth strategies for small businesses consultancy firms.

Quest Forum, SMS Environment and Engineering Pvt. Ltd.

Kathmandu, Nepal

Environmental Assistant

January 2023–June 2023

- Assisted in environmental studies including preparation of reports, preparation of Terms of References (TOR), facilitation of public hearing, data collection, preparation of presentations.
- Compilation of technical and financial documents for Bidding.
- Assisted in field visits for environmental monitoring in various industries from different sectors such as Brick, Cement, Beverage, and Pharmaceuticals.
- Assisted in Preparation of Environmental Monitoring Report.
- Communicated findings and recommendations to clients, stakeholders, and regulatory bodies.

Nepal Environmental and Scientific Services (NESS)

Kathmandu, Nepal

MSDS Officer Intern

July 2022 – December 2022

- Prepared laboratory consumables inventory and created material safety data sheets (MSDS).

PUBLICATIONS

Journal Articles

- Puri, B. P., Adhikari, T. R., et al. *Spatial and Temporal Variations of Surface Air Temperature (1962–2022) across Physiographic Regions in the Koshi Basin, Nepal*. Published in *SOHAM*.
- Gautam, R., Puri, B. P., et al. *Impact of Climate Variability on Agricultural Productivity and Food Security in Banke, Nepal: Insights from 1990–2020*. Published in *OASK Publishers*.
- Research Paper (In Progress): *Assessing Soil Nutrient Dynamics and Their Impacts on Crop Yields: A Case Study of Janaki Rural Municipality, Banke, Nepal*.

Thesis

- Temperature Trend Analysis Along with Paddy Production Trend and Their Impact on Paddy Cultivation in Koshi Basin, Nepal.

RESEARCH AND FIELD EXPERIENCE

- Conducted flood frequency analysis using Gumbel’s Distribution Method and HEC-HMS, and developed river channel geometry for Balkhu River Basin using HEC-RAS.
- Simulated rainfall data using Statistical Downscaling Modelling (SDSM) during the Flood and Hydrological Modeling Project in Surkhet Weather Station, Nepal.
- Conducted geological data collection, input, and analysis in Kakani Ranipauwa Area, Nuwakot District, Nepal.
- Geological and Ecological Field Study, Malekhu – Pokhara, Nepal: Conducted geo-environmental studies on rock mass classification, slope stability, landslides, and biodiversity; created environmental geological maps and assessed fluvial deposits.
- Led community-based solid waste segregation initiatives at Sunrise English Boarding School, Sainbu, Lalitpur, Nepal, including managing solid waste and conducting field-based data collection.
- Emission inventory from cement production in Nepal: Annual pollutant emission that generate from the Shivam and Hongshi cement industries was calculated and estimated by the help of default emission factor for different pollutant.
- Emission inventory from hospital: Conducted an emission inventory analysis of NOx, CO, and SOx from Bir Hospital and Grande Hospital, including calculations of mercury and lead emissions during clinical waste incineration.
- Water quality monitoring of ground water and irrigation water: Conducted water quality monitoring of surface and groundwater of Koplu Khola, Nuwakot, analyzing parameters such as temperature, pH, EC, TDS, TSS, heavy metals, and coliform bacteria.
- Measurement and comparison of noise level (equivalent, percentile) in residential, public and workplaces: Compared and identified the noise level within Balkhu and nearby areas.

SKILLS

- **Programming:** Python, R
- **Software:** ArcGIS, HEC-HMS, HEC-RAS, SDSM, LaTeX, Markdown, Git
- **Technical:** Field Surveys, EIA/IEE/BES, Report Writing, Stakeholder Consultations

TRAINING AND CERTIFICATIONS

- Geographic Information System (GIS) Certification – 1 Month (2020)
- Chemical Management and MSDS Certification – 2 Weeks (2022)
- Electricity Grid Modernization Project (EGMP) NEA-Environment and social safeguards training – 1 Week (2024)

Language Skills

Language	Reading	Writing	Speaking
Nepali	Native	Native	Native
English	Excellent	Excellent	Good
Hindi	Excellent	Beginners	Intermediate

REFERENCES

Dr. Bhupendra Devkota
Principal, Professor, College of Applied Sciences-Nepal
bhupendra.devkota@gmail.com

Dr. Tirtha Raj Adhikari
Professor Emeritus, Tribhuvan University
tirtha43@gmail.com

Surendra Dev Bhatta
Executive Director, Green Globe International Pvt. Ltd.
surenbtt@gmail.com

Consultations and Projects Directories for References

- EIA, IEE, Reports preparation and Field Visits.
 - Lower Arun Power Development (335MW), Sankhuwasabha
 - Karuwa Seti Hydropower Project (SEIA, 32 MW), Pokhara Kaski
 - Kanke-Deurali Dam Project, Department of Water and Sewerage management, Madane Rural Municipality, Gulmi
 - Myagdi Khola Hydropower (65MW), Myagdi
 - Molung Khola Hydropower (8.53MW), Okhaldhunga
 - Lapa Khola Hydropower (4.99MW), Dhading
 - Chaurjahari Hospital, Rukum
 - Om Foods Pvt. Ltd., Kailali
 - Hulas Steel Industries Pvt. Ltd., Birgunj, Parsa
 - Aanandam Snacks and Beverages Pvt. Ltd. Birgunj, Parsa
 - Planet Green Recycling Pvt. Ltd. Dhanusa
 - Kalpa Metals Pvt. Ltd., Bara
 - Dugar Spices and Food Products Pvt. Ltd. Morong
 - Kantipur Washing Udhyog Pvt. Ltd. Morong
 - Lumbini Gas Company Pvt. Ltd. Rupandehi
 - Nava Prabhat Dairy Pvt. Ltd. Lalitpur
 - Reliance Spinning Mills Limited, Sunsari
 - Laxmi Motor Corporation Pvt. Ltd. Nawalparasi (Bardaghat Susta West)
 - Janakpur Refineries Pvt. Ltd. Dhanusa
 - United Pharmaceuticals Industries Pvt. Ltd. Jhapa
 - Many More ...
- Environmental Monitoring
 - Panchakanya Steel, Panchakanya Group, Tilottama-15, Rupandehi,
 - Kathmandu Steel Pvt. Ltd. Sarawal Rural Municipality-1, Nawalparasi (Bardaghat Susta West),
 - Upahar Feeds Pvt. Ltd. Ramdhuni-14, Sunsari
 - Progeochem Industries Pvt. Ltd. Parwanipur Rural Municipality-05, Bara
 - Probiotech Industries Ltd. Birgunj Metropolitancity-21, Parsa
 - Progeochem Industries Pvt. Ltd. HID, Hetauda, Makawanpur
 - Himalayan Distillery Limited. Birgunj -21, Parsa
 - Asian Biscuit and Confectionery Pvt. Ltd. Duhabi, Sunsari
 - Maruti Cements Ltd. (MCL) Golbazar-9, Siraha
 - Shivam Cement Ltd. Hetauda-16, Makawanpur
 - Ambe Steels Pvt. Ltd. Mayadevi Gaupalika-6, Rupandehi, Nepal
 - QBD Pharmaceuticals Pvt. Ltd. Sanga, Banepa -14, Kavre
 - Vijaya Distillery Pvt. Ltd., Raj Brewery Pvt. Ltd., Rolling River Distilleries Pvt. Ltd. by Jawalakhel Group of Industries
 - Agromix feed Industries Pvt.Ltd. Ratnanagar Municipality, Chitwan
 - Hulas Steel Industries Ltd. (Unit 1) Jeetpur Simara Sub-metropolitan City-02, Bara
 - Nuplast Industries Pvt. Ltd. Jeetpur Simara Sub-metropolitan, Bara
 - Jagdamba Enterprises Pvt. Ltd. Birgunj Metropolitan city-32, Parsa
 - Ganapati Vanaspati Pvt. Ltd. Jeetpur Simara Sub-metropolitan City, Bara
 - RMC Cement Pvt. Ltd. Jeetpur Simara Sub-metropolitan City, Bara
 - Rajesh Metals and Crafts Pvt. Ltd. Jeetpur Simara Sub-metropolitan City, Bara
 - Jagdamba Enterprises Pvt. Ltd., Birgunj-32, Parsa
 - RMC Foods Pvt. Ltd. Jeetpur Simara Sub-metropolitan City, Bara
 - Brick Factories (Brahmayani Mahadevi Fix Itta Udhyog, Hanuman Bricks, Maitri Hanuman Bricks, Changu narayan Itta Udhyog, Barahi Brick Factory, ...)
 - Many More ...
- Central Treatment Facility project for Kathmandu valley (Research Projects),
- International Labour Organization (ILO) projects on occupational safety and health (OSH) for tea laborers (Research Projects)