Til Prasad Pangali Sharma (PhD)

DoB: October, 1988

Contact

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Summary

Geographer with a strong academic background in Geographic Information System (GIS). With Master's degree in Geography followed by a PhD in Cartography and GIS (2021), he earned expertise in disaster risk analysis and remote sensing data (Sentinel and Landsat) applications in DRR. His research projects have focused on utilizing GIS approaches in land use change and Disaster Risk Analysis. Transitioning into the professional career, he has worked as a GIS expert as well as DRR specialist in various national and international projects.

Skills

QGIS/ArcGIS
Google Earth Engine (GEE)
ENVI
Index Modelling (MCDA)
Project Management
Academic Writing

Qualification

2017-2021 **Ph.D. in Cartography and GIS**
Aerospace Information Research Institute, University of Chinese Academy of Sciences, Beijing, China
Dissertation: "Flood Risk Analysis through Remote Sensing and GIS Approaches in Gandaki River Basin of Nepal"
Advisor: Prof. ZHANG Jiahua (PhD)

2014-2016 **M.Phil. in Development Geography**
University of Bergen, Norway
Dissertation: "Livelihood vulnerability and coping strategies to flood disaster: a case from western Nepal"
Advisor: Prof. Tor Halfdan Aase (PhD)

2010-2013 **Master in Geography**
Central Department of Geography, Tribhuvan University, Nepal
Dissertation: "Impact of flood in human settlement distribution in Seti River Basin, Central Nepal"
Advisor: Prof. Pashupati Nepal (PhD)

Awards & Grants

2020 Outstanding International Student Scholarship Chinese Government Scholarship (CSC Award)

2020 UCAS Excellent International Students Award, University of Chinese Academy of Sciences

2017-2021 CAS-TWAS President's Fellowship, China

2014-2016 The Norwegian State Education Loan Fund (Lanekassen), Norway

Research Interests

Disaster Geography, GIS and Remote Sensing, Disaster Risk Reduction, Household Vulnerability, Land Cover Change,

Professional Experiences

GIS/RS Expert: Facilitating the periodic planning process in Naumule Rural Municipality, Dailekh District. A Project funded by International Idea. (10 to 22 December 2024).

GIS/RS expert: Risk Sensitive Land Use Planning (RSLUP) for Tikapur and Giri Municipalities: A project funded by USAID TAYAR. Nepal Development Consultancy (NDC), Kathmandu, Nepal. (February to September 2024)

GIS/RS expert: Developing unified standard guidelines for identification, appraisal, selection, and prioritization of government projects and developing capacity for Project Development and Appraisal. A project funded by ADB. Scholar Nepal Pvt. Ltd. (1st November 2023 to May 2024).

Remote Sensing Consultant: Prioritizing the Displacement-Environmental Nexus. Chr. Michelsen Institute (CMI), Bergen, Norway (since: March 2023)

Faculty Member: Master in Mountain Science (MMS), Nepal Mountain Academy, Tribhuvan University. (Since May 2023)

Faculty Member: Faculty of Science, Health, and Technology, Nepal Open University. (Since June 2022)

GIS/RS expert: State and dynamics of cryosphere of Upper Karnali Basin, associated hazard and implication to water resources and livelihood. A project funded by Research Coordination and Development Council (RCDC), Tribhuvan University. (Since September 2022)

Project Team Leader: Preparation of Provincial Level Land Use Plan for Madhesh Province (Saptari, Siraha, Dhanusha). A project funded by Ministry of Land Management, Agriculture and Cooperatives, Janakpur, Dhanusha, Madhesh Province. Chinmasta Spatial Solution. (March 2023 to July 2023)

Preparation of Provincial Level Land Use Plan for Madhesh Province (Janakpur, Birgunj, Rajbiraj, DurgaBhagbati, Aaurahi). A project funded by Ministry of Land Management, Agriculture and Cooperatives, Janakpur, Dhanusha, Madhesh Province. Chinmasta Spatial Solution. (April 2022 to July 2022)

GIS Analyst: Development of Digital Database for Tourism. Project funded by Nepal Tourism Board (NTB). Central Department of Geography, T.U.
(March, 2022 to April, 2022)

GIS Expert: Risk Sensitive Land Use Planning (RSLUP) for Neelkantha and Dullu Municipalities: A project funded by USAID. Nepal Development Consultancy (NDC), Kathmandu, Nepal. (August 2021 to February 2022)

Research Assistant: Water and Sanitation program in Sunsari District of Nepal, Development Resource Center (DRC). (April to July 2011)

Research Assistant: Secondary Town Integrated Urban Environment Improvement Project, Department of Urban Development and Building Construction (DUDBC) Kathmandu.
(September 2009 to October 2010)

Selected Peer-Reviewed Journal Articles

1. Pangali Sharma, T.P.; Zhang, J.; Khanal, N.R.; Nepal, P.; Pangali Sharma, B.P.; Nanzad, L.; and Gautam, Y. (2022). Household vulnerability to flood disaster among Tharu community, Western Nepal. ***Sustainability*** *14 (9)*. https://doi.org/10.3390/su141912386
2. Pangali Sharma, T. P.; Zhang, J.; Khanal N.R.; Prodhan, F.A.; Nanzad, L.; Zhang D.; and Nepal P (2021). A Geomorphic Approaches for Identifying Flash Flood Potential Areas in the East Rapti River Basin of Nepal. ***ISPRS International Journal of Geo-Information***. 10 (4) https://doi.org/10.3390/ijgi10040247
3. Pangali Sharma, T.P.; Zhang, J.; Khanal N.R.; Prodhan, F.A.; Paudel, B.; Shi, L.; Nepal, N. (2020) Assimilation of Snowmelt Runoff Model (SRM) Using Satellite Remote Sensing Data in Budhi Gandaki River Basin. ***Remote Sensing***. 12 (12). https://doi.org/10.3390/rs12121951
4. Pangali Sharma, T.P.; Zhang, J.; Koju, U.A.; Zhang, S.; Bai, Y.; Suwal, M.K. (2019): Review of flood disaster studies in Nepal: A remote sensing perspective. ***International Journal of Disaster Risk Reduction***. vol 34 (pages 18-27) https://doi.org/10.1016/j.ijdrr.2018.11.022

5. Chew, B.-H., Maxwell, L., Anyiam, F.E., Menouni, A., Kurniawan, T.A., Dimobe, K., Pangali Sharma, Til Prasad, Ali, G.A.M., Shah, R.D.T., Saleem, R., Mashroofa, M.M., Nasr, M., Abbas, B., Atapattu, A.J., Mahmoud, M., Singh, N. and Sarker, M.R. 2024 Statements on Open Science for Sustainable Development Goals. Data Science Journal, XX: XX, pp. 1–8. https:// doi.org/10.5334/dsj-2024-050 (accepted)
6. Han, J.; Zhang, J.; Yang, S.; Cao, D.; Prodhan, F.A.; Pangali Sharma, Til Prasad (2022): A new composite index for global soil plant atmosphere continuum drought monitoring combing remote-sensing based terrestrial water storage and vapour pressure deficit anomallies. ***Journal of Hydrology***. https://doi.org/10.1016/j.jhydrol.2022.128622
7. Seka, A.M.; Zhang, J.; Prodhan, F.A.; Ayele, G.T.; Finsa, M.M.; Pangali Sharma, T.P.; and Melesse, A.M. (2022). Hydrological drought impacts on water storage variations: a focus on the role of vegetation changes in the East Africa region: A systematic review. ***Environmental Science and Pollution Research***. https://doi.org/10.1007/s11356-022-23313-0
8. Prodhan, F.A., Zhang, J., Hasan, S.S., Til Prasad Pangali Sharma, Mohana, H.P. (2022). A review of machine learning methods for drought hazard monitoring and forecasting: Current research trend, challenges, and future research direction. ***Environmental Modelling & Software***. https://doi.org/10.1016/j.envsoft.2022.105327
9. Cheng, T., Zhang, J., Zhang, S., Bai, Y., Wang, J., Li, S., Javid, T., Meng, X., and Til Prasad Pangali Sharma (2021). Monitoring soil salinization and its spatiotemporal variation at different depths across the Yellow River Delta based on remote sensing data with multi-parameter optimization. ***Environmental Science and Pollution Research***. https://doi.org/10.1007/s11356-021-17677-y
10. Prodhan, F.A., Zhang, J. Til Prasad Pangali Sharma, Nanzad, L., Zhang, D., Seka, A.M., Ahmed, N., Hasan, S.S., Hoque, M.Z., Mohana, H.P. (2021). Projection of future drought and its impact on simulated crop yield over South Asia using ensemble machine learning approach. ***Science of The Total Environment***, https://doi.org/10.1016/j.scitotenv.2021.151029
11. Hassan, T.; Zhang, J.; Prodhan, F.A.; Til Prasad Pangali Sharma; Bashir, B. (2021) Surface Urban Heat Islands Dynamics in Response to LULC and Vegetation across South Asia (2000–2019). ***Remote Sensing***. https://doi.org/10.3390/rs13163177
12. L. Nanzad; J. Zhang *; B. Tuvdendorj; S. Yang; S. Rinzin; F. A. Prodhan; Til Prasad Pangali Sharma (2021). Assessment of Drought Impact on Net Primary Productivity in the Terrestrial Ecosystems of Mongolia from 2003 to 2018. ***Remote Sensing***. https://doi.org/10.3390/rs13132522
13. F.A. Prodhan; J. Zhang; F. Yao; L. Shi; Til Prasad Pangali Sharma; D. Zhang; D. Cao; M. Zheng; N. Ahmed; and H.P. Mohana (2021). Deep Learning for Monitoring Agricultural Drought in South Asia Using Remote Sensing Data. ***Remote Sensing*** 13 (9). https://doi.org/10.3390/rs13091715
14. L. Nanzad; J. Zhang; G. Batdelger; Til Prasad Pangali Sharma; U.A. Koju; J. Wang; M. Nabil (2021). Analyzing NPP Response of Different Rangeland Types to Climate Parameters over Mongolia. ***Agronomy*** 11 (4). https://doi.org/10.3390/agronomy11040647
15. Shuaishuai Li, Jia-Hua Zhang, Sha Zhang, Bai Yun, Dan Cao, Tiantian Cheng, Zhongtai Sun, Qi Liu, Til Prasad Pangali Sharma (2021). "Impact of Future Climate Changes on Spatio-Temporal Distribution of Terrestrial Ecosystems over China. ***Sustainability***. https://doi.org/10.3390/su13063049
16. M. Zheng, J. Zhang, L. Shi, D. Zhang, Til Prasad Pangali Sharma, F.A. Prodhan (2020). "Mapping Heat Related Risks in Northern Jiangxi Province of China Based on

Two Spatial Assessment Frameworks Approaches" ***International Journal of Environmental Research and Public Health***. https://doi.org/10.3390/ijerph17186584

17. F. A. Prodhan, J. Zhang, Y. Bai, Til Prasad Pangali Sharma and U. Ashish Koju (2020), "Monitoring of Drought Condition and Risk in Bangladesh Combined Data from Satellite and Ground Meteorological Observations," ***IEEE Access***. vol. 8 https://doi.10.1109/ACCESS.2020.2993025
18. Nirdesh NEPAL, Jiangang CHEN, Huayong CHEN, Xian WANG, Til Prasad Pangali Sharma (2019): Assessment of landslide susceptibility along the Araniko Highway in Poiqu/Bhote Koshi/Sun Koshi watershed, Nepal Himalaya. ***Progress in Disaster Science***. Vol.3 https://doi.org/10.1016/j.pdisas.2019.100037

Book Chapters

1. Paudel, B.; Pangali Sharma, Til Prasad; Zhang, Y.; Linshan, L.; Rai, M.K.; and Nepal P. (2024). **Protected and Eco-Sensitive Areas of Nepal Himalaya and Their Importance**. In Sacred Landscape, Indigenous Knowledge, and Ethno-culture in Natural Resource Management. Springer. (*In Press*).
2. Adhikari, B.R., Gautam, S., Pangalil Sharma, Til Prasad, Devkota, S. (2024). **Land Cover, Land Use Change and Its Implication to Disasters in the Hindu Kush Himalayan Region**. In: Mazumder, R., Shaw, R. (eds) Surface Environments and Human Interactions. Springer, Singapore. https://doi.org/10.1007/978-981-97-0112-4_2
3. Paudel, B., Pangali Sharma, Til Pangali, Zhang, Y. (2022). **Traditional Ecological Knowledge of Resource Management in Nepal**. In: Rai, S.C., Mishra, P.K. (eds) Traditional Ecological Knowledge of Resource Management in Asia. Springer, Cham. https://doi.org/10.1007/978-3-031-16840-6_8

Training

1. **Lead Trainer**: Technical Training on GIS for Disaster Risk Reduction and Management. Organized by National Disaster Risk Reduction and Management Authority, Singha Durbar, Kathmandu (9 July, 2023 to 13 July, 2023).
2. **Lead Trainer**: Remote Sensing Application on Water Resource Management. Organized by Water Resource Research and Development Center, Kathmandu (3 April, 2023 to 7 April, 2023)
3. **Lead Trainer**: GIS application in tourism development; organized by Nepal Tourism Board (NTB), Kathmandu (6 Jan, 2023 to 5 Feb, 2023).

Conferences

4. The 28th International Conference on Geoinformatics CPGIS Annual Conference program. Nanchang, Jiangxi Province, China. Session 16-1: Big Earth Data for Disaster Risk Reduction. Presentation title: **A Geomorphic Approach for Identifying Flash flood Potential Areas in the East Rapti River Basin of Nepal**. November 03 – 05, 2021.
5. International Conference on Silk-road Disaster Risk Reduction and Sustainable Development, International Convention Center, China. Session II: Monitoring and early warning, cross-border disaster, mountain hazards. Presentation title: **Flood Disaster Studies in Nepal: A Remote Sensing Perspective**. May 11 – 12, 2019

Journal Editor

1. The Geographic Base (since 2022 till now)
2. The Himalayan Review (since 2022 till now)

References:

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I hereby confirm that the above-mentioned information is accurate.

Signature