

DR. SWARNIMA SINGH

BA (Hons.), MA, MPhil, PhD

Personal Information

Date of Birth: 4th October, 1983

Gender: Female

Marital status: Married

Nationality:

Indian

Contact Information

Address: H.No.186F, Bindoo Shahi Niwas, Bilandpur New Colony,
Gorakhpur– 273001 State – Uttar Pradesh

Phone Number: (+91) 9910146475

Email: swarnima.singh@gmail.com

FIELDS OF INTEREST

Climate Change, climate change modeling, Livelihood Security, Geographic Information System, LiDAR, Micro wave- Remote Sensing, carbon foot printing, Machine Learning , Big Data, Artificial Intelligence, disaster vulnerability/ risk assessment.

ACADEMIC BACKGROUND

PhD
(September '11- February 15) Thesis Topic "**Climate Change And Livelihood Security in Kangra District Himachal Pradesh**", India.

The study pivots around establishing climate change scenario(both BAU and A2B2) and micro level sustainable livelihood security framework (MSLF) on the basis of RCM model and field work.

M. Phil
(August '05- August '07) Dissertation Swivel around "**Disaster Vulnerability and Mitigation Plan for Noida and Greater Noida**", India.

- First rank holder, in Department of Geography, University of Delhi
- The M.Phil Dissertation has been widely appreciated by Ministry of Urban Development and Noida Development Authority, India.

M. A.: Geography
(July '03 – June '05) Department of Geography, Delhi School of Economics, University of Delhi,

- Master's dissertation on "**Impact of Transport on Delhi's Environment**" under supervision of Dr. R. B. Singh.
- Third rank in Delhi School of Economics, department of Geography, University of Delhi

B.A (HONS.): Geography
(July '99 – June '02)
**Diploma in Disaster
Management (2004)**

Miranda House, University of Delhi, India.
First Class
Disaster Management and Mitigation strategies, GIS modeling
and Risk Management, Indira Gandhi Open University, Delhi,
First class

PROFESSIONAL EXPERIENCE

- i. Assistant Professor, (July, 2018-until now), Department of Geography, DDU Gorakhpur University, Gorakhpur, India-273009.
- ii. Assistant Professor, (January 2012-May 2018), Shaheed Bhagat Singh College, University of Delhi, New Delhi- 110007.
- iii. Research Associate at World Wide Fund for Nature (WWF-India),(July,2010–Sept 2010), Prof (Dr.)T.R. Manoharan, Director of Forestry Division,172-B,Secretariat,Lodhi Road, New Delhi, India
- iv. Research Assistant (August, 2007 – June 2009), Prof (Dr.) N.H. Ravindranath (Chairman of Centre for Sustainable Technologies, and Assistant Professor of Centre for Ecological Sciences, Indian Institute of Science, Bangalore

Research pivots around issues related to:

- a. Geographic Information System,
- b. Climate change vulnerability modeling,
- c. Reducing Emission from Deforestation and Degradation Plus (REDD+),
- d. developing decision support system together with Global Circulation and Regional Circulation modeling (GCM & RCM) for developing mitigation and adaptation synergy.
- e. Land use land cover change impact modeling
- f. Global Forest Trade Network (GFTN): forestry certification
- g. GEF -5, STAP, and Global Anthropogenic Response to Climate change (CICERO`s).
- h. India`s Second National Communications to the United Nation Framework Convention on Climate Change (NATCOM II)
- v. Research Fellow in Delhi School of Economics, Delhi University, under Special Assistantship Programme of UGC (Delhi 28th September – 30th March, 2007) Prof (Dr.) H.Ramachandran.

LIFE MEMBER OF ACADEMIC BODIES

- I. Indian Society of Remote Sensing (ISRS)
- II. Indian Institute of Geomorphologists (IGI)
- III. National Association of Geographers, India (NAGI)
- IV. Association of Geographers-India

SELECTED AWARD

October, 2012	Meritorious student scholarship UGC- SAP, University of Delhi
July, 2010	Japanese Government Scholarship Award to Study Abroad for Outstanding Students
June, 2010	Chinese Government Scholarship Award to Indian National for Outstanding Students Abroad
September,2006	University Grant Commission – Special Assistantship Programme Award (UGC-SAP), September 2006 to March, 2007. New Delhi, India
December,2005	University Grant Commission India, UGC- Lecturer Eligibility

PUBLICATIONS AND BOOK REVIEWS

- Book Authored**
1. Singh, S. and Singh R.B. (2021) *Simulating Climate Change and Livelihood Security: A Western Himalayan Experience*, India. **Springer- Nature**, ISBN: 978-981-16-4647-8
- Journal Publications**
1. Singh, S. (2018). Fuzzy Cognitive Mapping in Analyzing Climate Variability Impact on Livelihood Vulnerability: A Case Study of Western Himalayan District, *SJSP*, pp. 11-23, vol. 2, No. 2, Delhi.
 2. Singh, P. and Singh, S. (2018). Exploring Singapore's Green Mobility Preparedness, *SJSP*, pp. 11-23, vol. 2, No. 1, Delhi.
 3. Singh, P. and Singh, S. (2016). Public Understanding and Response to Climate Change among Delhi's Youth, pp. 4-10 *International Journal of Social Sciences Tomorrow*, SPIRI publication vol 3, issue 4. ISSN: 2277-6168. UGC JOURNAL NO. 62554.
 4. Singh, R.B. and Singh, S. (2011). Rapid Urbanization and Induced Flood Risk in Noida, India, *Asian Geographer Journal*, Vol. 28, Issue 2, pp.147-69. ISSN-1022-5706. UGC S.NO. 50 JOURNAL NO. 8761.
 5. Singh, S. (2010). GIS Application in Urban Heat Island: A Crusading Anthropogenic Driver to Climate Change. *Urban India Journal*, Vol. 30, pp. 74-92, India Habitat Center, New Delhi, India. ISSN-09709045. UGC JOURNAL NO. 49136
 6. Ravindranath, N.H. and Singh S. (2008). Climate Change and Sustainable Bio-fuel Production in Africa. *Competence Platform on Energy Crops and Agro forestry Systems – Africa*, issue no. 3, ISSN-080922.
- Book Chapter**
1. Singh, S. (2018). Towards New Paradigm of Smart India: A Case of Amaravati City on India's Singapore. In Sharma, V.R. and Verma C, (Eds.) *Making Cities Resilient*, pp 90-101, Hong Kong, **Springer publication, ISBN-978-319- 28975-4**.
 2. Singh, S. (2017) Remote Sensing Assessment of Carbon Fluxes and Climate Change. In B. Thakur et al., (Eds.) *Regional development: theory and practice: Professor R.P. Misra felicitation volumes*, pp 299-317, vol 2, New Delhi (India), Concept Publishing Company Pvt. Ltd, **ISBN 9789351252047**.
 3. Singh, R.B Singh, S. (2016) Assessing Climate Change Signals in Western Himalayan District Using PRESIS Data Model. In Singh, R.B. ans Mal Suraj (Eds.), *Climate Change, Glacier Response and Vegetation Dynamics in Himalaya*, pp 103-115, Netherlands, **Springer publication, ISBN-978-319-28975-5**.
 4. Singh, S. (2016) Indian Climate Policy and Ideology: Beyond Development. In B. Thakur et al., (Eds.) *Regional development: theory and practice: Professor R.P. Misra felicitation volumes*, pp.274-282, vol 4, New Delhi (India), Concept Publishing

Company Pvt. Ltd, ISBN 9789351252061.

5. Singh, S. (2016) Climate Change Policy of India. In B. Thakur et al., (Eds.) *Regional development: theory and practice: Professor R.P. Misra felicitation volumes*, pp. 283-298, vol 4, New Delhi (India), Concept Publishing Company Pvt. Ltd, ISBN 9789351252061.
6. Singh, P. and Singh, S. (2016) Anthropogenic Climate Change and Critical Assessments of Contemporary Climate Policy Discourse, Raman, V.A.V. (Ed.) *Geoanthropogenic Environment: An Appraisal*, Delhi, pp. 13–31, A.K. Publications, ISBN: 978-93-85022-73-9.
7. Singh, S. and Singh, P. (2015). Mapping Environment for Capacity Building to Use ICT for Community Development: A GIS Application in Jangpura, New Delhi. In VR Sharma (Ed) *Contemporary Environmental Issues and Management*, pp. 85-102, New Delhi (India), Research India Press, ISBN:978-93517-10356.
8. Singh, R.B Singh, S. (2014). Human induced biome and livelihood security. In Singh R.B., Hietala R. (Eds.) *Livelihood security of Northwestern Himalaya: Case studies from changing socio-economic environments in Himachal Pradesh*, pp- 53-66, Netherlands, Springer publication,. ISBN: 978-4-431-54867-6
9. Singh, S. (2014). Impact of Climate Change on South Asian Forests. In R. Thakur, Inder Jeet, R.K. Abhay and S. Thakur (Eds.) *Resources and Regional Development in India*, pp. 358-375, Jaipur, Rawat Publications, ISBN: 978-81-316-0641-4.
10. Singh, R.B and Singh, S. (2013). Anthro Biomes- Integrated Modeling of Global Climate Change. In 3rd International Geographical Congress (IGC) Conference on Sustainable Natural Resource Management (CWRDM), Allied Publishers Pvt. Ltd. New Delhi.6-8 May, 2011, pp- 215-221. ISBN: 978-818424-774-9.
11. Singh, S. (2011). Anthropogenic Simulation to Climate Change: Integration of Cellular Automata, GIS and Remote Sensing in Village Information System (VIS). In Subhash Anand (Ed.), *Eco Development Global Perspectives*, pp. 151-165, New Delhi, Research India Press, ISBN-978-81-8931-46-3.
12. Singh, R.B. and Singh, S. (2007). Challenges of Flood Disaster Management: A case Study Noida: A GIS Approach. In Singh, J. (Ed.), *Disaster Management: Future Challenges and Opportunities*, pp.15-30, New Delhi, I.K. International Publishing House, ISBN 97881-89866-46-4.
13. Singh, R.B. and Singh, S. (2007).Temporal Transport Hazard Dynamics: A Case Study of Delhi. In Singh, J. (Ed.), *Disaster Management: Future Challenges and Opportunities*, pp. 95-112, New Delhi, I.K. International Publishing House, ISBN 97881-89866-46-4.
1. Singh, S. (2020) Climate Scenarios Modeling for Impact Analysis on Ecosystem Services in Western Himalayan District of India, 18-20 December 2020. In Global to Local Sustainability and Future

Earth seminar International Geographical Union.

2. Singh, S. (2020) "Climate Scenarios Modeling for Impact Analysis on Ecosystem Services in Western Himalayan District of India" in International Geographical Union India International Conference (Virtual), 2020 on "Global to Local Sustainability & Future Earth" Singh,
3. Singh, S. (2019) Disaster Vulnerability and Sustainability Science: A case study of Noida U.P., in Environment, Sustainability, Law and Cultural Landscape of Asia, 8th ACLA International Symposium, 17-19 October, 2019.
4. Singh, S. (2019) Fuzzy Cognitive mapping and Sustainability Science., National Workshop on Environmental Hazards Livelihood Issues and Resilience in Agrarian Societies, 02-03 February, 2019.
5. S. (2018). Regional Circulation Modeling on Ecosystem Services in Western Himalayan District, India. National Conference on Climate Change Conclave: Climate Actions for India's Commitment to Combat Climate Change, 21st- 22nd April, 2018 at Conference Centre, University of Delhi.
6. Singh, S. (2018). Downscaling Climate Model for Regional Prediction of Climate variability on Western Himalaya, International Conference on Livable Cities: Transforming Sustainability and its Challenges. 5 to 7th February, 2018 at Conference Centre, University of Delhi.
7. Singh, S. (2017). Climatic Variability and livelihood Security in Kangra District, H.P. International Conference on Making Cities Resilient, 3rd and 4th February, 2017 University of Delhi,
8. Singh, S. (2017). Signals of Climatic Change in Kangra District, H.P. International Conference, University of Delhi, paper, 35th Indian Geography Congress, Chennai, 12-14 December, 2013 Tamil Nadu pp. 115
9. Singh, S. (2014). Conflicting Signals of Climatic Change in Kangra District, H.P. Conference paper, 35th Indian Geography Congress, Chennai, 12-14 December, 2013 Tamil Nadu pp. 115
10. Singh, R.B and Singh, S. (2013). Anthro Biomes- Integrated Global Climate Change Modeling: A Case Study of Himachal Pradesh, International Geographical Union (IGU) Conference on Geoinformatics for Biodiversity and Climate Change, MDU, Rohtak, 14-16 March, 2013. .
11. Singh, S. (2016). Organized, Participated and Presented paper entitled "Inconsistent Signals of Climate change in Kangra district, IGU, Delhi, 2016.
12. Singh, S. (2014). Participated and Presented paper entitled "Climate change and livelihood security in Kangra district, IGI, Midnapore, 2014.
13. Singh, S. (2013). Participated and Presented paper entitled Inconsistent signal of CC, 2013, VARODA Gujarat, IGI
14. Singh, S. (2012). Participated and Presented paper entitled "Reaching the Unreach" NAGI, Patna, 2012
15. Singh, S. (2012). Participated in UGC SAP workshop on

“Techniques in Regional/Resource Studies”, University of Delhi, 2012.

16. Singh, S. (2011). Participated and Presented paper entitled “Anthropogenic Biomes: A response to Global Climate Change Modeling” in the 33rd Indian Geography Congress at Burdwan, West Bengal, India., 2011.
17. Singh,S.(2010). "Climate Change Dynamics in South Korea". Researchers Association of South Korea (RASK), Vol. 3, India International Centre, Delhi, February, 23, 2010.
18. Singh,S.(2009). "Paradigm Shift from Shadow to Shine: Role of Women in Disaster Management". Conference paper, 1st National Congress on Role of Women in Disaster Preparedness 15th -16th December 2009, American Centre, New Delhi, India. ISBN 97881-89866-46-47

Editor

14. Editorial Board Member IGI Global, 701 E. C. Avenue, Hershey, PA 17033, USA
15. Reviewer for the International Journal of Applied Geospatial Research (IJAGR).
16. Editorial member of “**Association of Geographical Studies**”, Delhi School of Economics, University of Delhi, India.

ACTIVITIES AND ACHIEVEMENTS

Additional Educational Awards

1. Participated in 15 days training organized by ISRO- Dehradun, on Advanced Geospatial Analysis for Urban Environment.
2. Successfully completed 3 months arduous training on Remote Sensing and GIS, organized by IIRS and DST (October-December, 2012).
3. Awarded UGC-SAP meritorious student Scholarship, October, 2011.
4. **Co- Chaired** the technical session at **American centre** on “Role of Women in Disaster Preparedness 15th -16th December 2009”. New Delhi India.
5. Member of Expert panel in Advance GIS and remote Sensing Technology (2000-05).
6. Certificate course in **Disaster Management** from IGNOU, emphasizing on concepts, GIS techniques, mitigation and management plans, (2004), **74 percent**.
7. Cleared UGC-NET (Mandatory Lectureship Examination in India.)- Dec 2005

Volunteering Experience

1. Volunteered for blind student reading and teaching (1999 to 2007)
2. Volunteered for Pulse polio awareness programme.
3. Worked part time to the school & college Cultural & language club
4. Team member in the college Magazine editorial board (IISc)
5. Volunteered in National level seminar on SEZ, Delhi School of Economics, Delhi.

CO-CURRICULAR INVOLVEMENT

1. “Indian`s second National Communication to the **United Nation Framework Convention** on Climate Change” (NATCOM- II), under Indian Institute of Science and Ministry of Environment and Forest (India).

2. Worked with **CIECRSO, Oslo** - Center for International Climate and Environment Research
3. Member of editorial board for assisting the publication of a yearly newsletter "**Association of Geographical Studies**", Delhi School of Economics, University of Delhi.
 4. **Indian Canada Environment Facility (ICEF)** - Technical Advisor for NRM studies.
 5. Worked as GIS expert in Tumkur: Land Suitability Analysis
 6. Worked as **Research Scientist** with **World Bank** and IISc collaboration on **Clean Development Mechanism (CDM)** in Himachal Pradesh, India (2008).
 7. Active member of **All India Peace Foundation of Disaster Management**.
 8. Convened various conferences and workshops on Disaster Management organized by Indian Institute of Technology (IIT) Delhi.
 - » Raster GIS and RS packages:
 - GRASS
 - MATLAB and CLIMATE SIMULATION MODELING
 - iLWIS (WATER SURFACE MODELING)
 - ArcGIS 14
 - ERDAS imagine,
 - ArcView3.2,
 - AutoCAD 2004
 - Vector GIS packages: ArcGIS 9.0
 - » Net-Cdf, METLAB Analysis package
 - » Census data Cartographic techniques and cartography software
 - » Efficient with MS Office applications, LINUX.
 - » data base (MS Excel, SPSS) software
 - » Others: VB,HTML,MS Windows 2000/XP/Vista
 - » Proficient with PDF page maker (fox edit)
 - » Working knowledge of various Image editors.

Software Skills


28/09/2021

Place: Gorakhpur

(SWARNIMA SINGH)