

Resume of Dr. Nandita Ghoshal

1. **Name** : Dr. Nandita Ghoshal
2. **Designation** : Professor
Department of Botany, Institute of Science,
Banaras Hindu University
Varanasi, India
3. **Date of Birth** : 14 June 1965

4. Academic Qualifications:

Exam	Univ.	Year	Subjects	Division
Class X	C.B.S.E	1981	Science Group	I
Class XII	C.B.S.E	1983	Biology Group	I
B.Sc.(Hons.)	BHU	1987	Botany(H), Zoology, Chemistry	I
M. Sc.	BHU	1989	Botany (Specialization: Ecology)	I
Ph.D.	BHU	1993	Botany (Plant Ecology) *	

***Doctoral Research Title:** Effect of Farmyard Manure on Soil Microbial Biomass Dynamics and Crop Growth in a Dryland Agroecosystem; **PhD Supervisor:** Prof KP Singh

5. **Field of Specialisation** : Ecology and Environmental Science
6. **Teaching Experience** : 30+ years
7. **Appointments Held** :
- (1) Professor, Department of Botany, BHU since Dec 2009 to present
 - (2) Associate Professor, Department of Botany, BHU since Dec 2006 to Dec 2009
 - (3) Reader, Department of Botany, BHU since Dec 2003 to Dec 2006
 - (4) Lecturer, Department of Botany, BHU from Feb 1997 to Dec 2003
 - (5) Lecturer in DAV (PG) College, Muzaffarnagar, CCCS University, Meerut, Aug 1995–Feb 1997 (Selected through UP Higher Education Service Commission)

8. Research contribution: 60 (Research papers & book chapters)

Soil Biology & Biochemistry, Biology & Fertility of Soils, Biomass and Bioenergy, Land Degradation and Development, Pedosphere, Restoration Ecology, Environmental and Experimental Botany, Ecological Engineering, Environment, Development and Sustainability, Environmental Sustainability, Soil Research, European Journal of Soil Biology, Soil Science Society of America Journal, Agriculture, Ecosystems and Environment, Experimental Agriculture, Journal of Tropical Ecology, Tropical Ecology, etc.

9. Current Research Interests:

Ecological analysis of soil organic matter dynamics of terrestrial ecosystems with special reference to:

- Restoration of degraded lands
- Sustainable biological productivity in agroecosystems
- Climate smart agriculture
- Nature based solutions for smart cities
- Urban land use change
- Mitigation of global climate change

10. **Research Supervision** : Ph.D. degree awarded : 11+1(Thesis submitted)
Ph.D. scholars currently working: 7
M.Sc. Dissertation supervised: 50

11. **Research Projects:**

Completed: 4

- 1) Soil organic matter dynamics, agrobiodiversity and crop productivity in tropical dryland agroecosystem: Effect of interaction of herbicide and soil organic inputs with varying resource quality (2009-2012); UGC; Major Research Project (Principal- Investigator).
- 2) Ecological manipulation of soil fertility for sustained crop productivity in tropical agroecosystems (2001-2004); UGC; Major Research Project (Co-Investigator).
- 3) Ecological analysis of the effects of common herbicides on Soil fertility and crop growth in an agroecosystem (1999- 2000) UGC; Minor project (Principal Investigator).
- 4) Ecological Analysis of Climate Smart Agriculture Strategies for Sustainable Crop Productivity in Dry Tropics (2022-2024); IoE, BHU, PI

12. **Paper presented in Conferences/ Seminar/Workshop etc.:** 55

13. **International collaboration**

- a) International collaboration with **Prof. Pete Smith, FSB, FRSE**, Royal Society-Wolfson Professor of Soils & Global Change, Institute of Biological and Environmental Sciences, School of Biological Sciences, University of Aberdeen, Aberdeen, **Scotland, UK** through **Bilateral Exchange Programme of Indian National Science Academy**, India and **Royal Society of Edinburgh, Scotland** from September to October **2011**.
- b) International collaboration with **Mr. W Weldesemayat Gorems**, Lecturer, Wondo Genete College of Forestry and Natural Resources, Hawassa University, Hawassa, **Ethiopia**, who has been awarded **Research Training Fellowship for Developing Country Scientists (RTF-DCS)** of **Centre for Science & Technology of Non-Aligned and Other Developing Countries (NAM S&T Centre)** to carry out research work for six months from **March-August 2016**, under my guidance in our research laboratory in Department of Botany, BHU

14. **Academic Visits Abroad:** 8

- (8) Attended International Conference on 'Education, Environment, and Agriculture (ICEEA 2025)', Warmadewa University, Denpasar, Bali, **Indonesia**, 2025.
- (7) Attended International Conference on 'Biodiversity, Agroforestry, Non-Wood Forest Products and Sustainable Livelihood' (ICBANS 2024) Kota Kinabalu, Sabah State, **Malaysia**, 2024.
- (6) Deputation to University of Aberdeen, Aberdeen, **Scotland, UK**, under Bilateral Exchange Programme of Indian National Science Academy, India and Royal Society of Edinburgh, **Scotland, UK**, 2011.
- (5) Visit to Rothamsted Research, **Harpenden, UK**, 2011.
- (4) IARU International Scientific Congress: Climate Change: Global Risks, Challenges & Decisions. Copenhagen, **Denmark**, 2009.

- (3) Attended 2008 Joint Annual Meeting: Celebrating the International Year of Planet Earth. Houston, **USA**, 2008.
- (2) Attended 7th International Carbon Dioxide Conference. Colorado, **USA**, 2005.
- (1) Attended VI International Congress of Ecology, Manchester, **UK**, 1994.

15. Membership/Fellowship of Professional Societies:

- Life Member : Indian Science Congress Association
 International Society of Tropical Ecology
 Member : International Society for Environmental Botanist
 Fellow : International Society for Ecological Communication

16. Research Fellowships held:

- (1) Research Associate of CSIR, (January 1994 - July 1995)
- (2) Research Associate of UGC, selected but did not join
- (3) JRF at CAS in Botany, BHU, (September 1991 - September 1993)
- (4) JRF of UGC Project, Department of Botany, BHU (August 1989 - July 1990)

17. Awards/ Honors:

- (1) GSA Travel Grant Award 2008, for attending 2008, 'Joint Annual Meeting: Celebrating the International Year of Planet Earth', held in Houston, Texas, USA, 5–9 October 2008.
- (2) Conferred Honorary Fellowship of 'International Society for Ecological Communication' in June 2009

18. Administrative and other responsibilities/activities:

- Chairperson, Women's Grievance Cell, Institute of Science, BHU (2019-continued)
- Course Coordinator, M.Sc. Environmental Science (March 2017-February 2020)
- Chairperson, Child Care Leave Committee, Institute of Science, BHU (2017-continued)
- Member, School Board (March 2022-Contd.)
- Member, Internal Grievance Cell, BHU (August 2022- October 2025)
- Honorary Librarian and member, International Society of Tropical Ecology
- Member, Endowment fellowship committee, Institute of Science, BHU (2023-contd.)
- Ecology Thrust Area Convener, CAS in Botany, BHU (2020-contd.)
- Convener, Departmental timetable committee, Dissertation distribution committee
- Course Coordinator, 6th Refresher Course in Environmental Studies, Academic Staff College, BHU, 09-29 January 2014
- Course Coordinator, 2nd Refresher Course in Environmental Studies, Academic Staff College, BHU, 06-26 August 2009
- Warden, Gargi Girls Hostel, BHU from July 2000 to June 2004
- Additional Superintendent for the B.Sc. Examinations of both the Semesters of 2011 & 2012 and Annual Examinations of the session 2004, 2005 & 2006
- Member, Central Vigilance Team of various University Examinations during 1997, 1998, 1999
- Member, Honours Distribution Committee, Faculty of Science, 2009-2011
- Worked regularly as Observer, University regular exams and in UET, PET, SET
- Member, Plantation and campus beautification committee, 2009 and 2010
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19. Expert member in governing bodies, board of studies, journal reviewers etc.:

- Member of the Subject Expert committee of Environment, Climate and Sustainable Development (ECSD) theme area under Women in Science and Engineering (WISE)-Societal Challenges with Opportunities (SCOPE) Fellowship program of WISE-KIRAN Division of Department of Science and Technology (DST). (2024-Contd.).
- Member, Research Advisory Committee of Forest Research Institute Deemed to be University for the PhD of the disciplines: Silviculture/Forest Management/Seed Technology/Forest Extension/Conservation Social Science. (January 2025-contd.)
- Member on the Special Committee of the School of Environmental Science, Jawaharlal Nehru University, New Delhi, India.
- Expert member in the Board of Studies in Botany, Faculty of Science, Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India.
- Member, Board of Studies, CCS University, Meerut, UP
- Member, **Syllabus Revision Committee**, Union Public Service Commission, Govt. of India
- External subject expert, Doctoral Advisory Committee (DAC) Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangluru, India.
- Member, Commission on Ecosystem Management, International Union for the Conservation of Nature (IUCN), Switzerland
- **Content writer** of Botany section under **e-PG Pathshala, a programme under the National Mission on Education through ICT (NMEICT)** scheme of the Ministry of Human Resource Development and UGC, 2017, Botany, Ecology M-07 Climax concept and examples of succession, M 19 Mechanism of Succession, M 28 Succession
- Member of the Panel of Reviewers of Scientific Journals:
Science of total environment, Agriculture, Ecosystem & Environment; Soil Science Society of America Journal; Soil Use and Management; Agronomy for sustainable Development; Ecological Research; Pedosphere; Experimental Agriculture; Frontiers of Environmental Science & Engineering; Catena, Current Science, Tropical Ecology, etc.

20. Delivered lecture as Resource person/ expert/panelist:

- Plant Ecology organized under PanditMadan Mohan Malviya National Mission on Teachers and Teaching (PMMNMTT) funded by MHRD, Govt. of India at Department of Botany, SPPune University, Pune on 20 and 21st April, 2018.
- Refresher Course organised by Academic Staff College, NEHU, Vishwa Bharti Shanti Niketan, Burdwan University, Mioram University, BHU.
- 'Women and water dialogue series' organized by The National Mission for Clean Ganga (NMCG) and GIZ India under the Support to Ganga Rejuvenation (SGR – II), an Indo German Bilateral Project on 11 October, 2023, Prayagraj, India.
- Lecture entitled, 'Monitoring Biodiversity through Remote Sensing & GIS' in PGD Remote Sensing & GIS, Department of Geography, BHU on 19 July 2022.
- 'Women in Action' organised by IUCN Commission on Ecosystem Management on 5 March 2022.
- 'Women working on water issues' organized by The National Mission for Clean Ganga (NMCG) and GIZ India under the Support to Ganga Rejuvenation (SGR – II), an Indo German Bilateral Project in Varanasi on 5 December 2022
- Centre for Mountaineering, BHU during 2004-2006

21. Organisation of Conference/seminar/symposium:

- **Convener**, Workshop on 'Being Climate Smart, Sustainable and Disaster Resilient', organised by Centre for Environment Education and Department of Botany, BHU May 2018
- Organising Secretary, National Symposium on Current Status and Horizons of Ecological Sciences and Environmental Biotechnology, Banaras Hindu University, Varanasi, India. 2013
- Member, Organising Committee, Orientation Programme 2010 for newly admitted B.Sc. Students of Faculty of Science
- Organising Secretary, Workshop on 'World Biodiversity Day', organised under the Environmental Calendar of BHU on 22 May 2009, 2010 & 2011
- Organised 'World Wetland Day' Celebration under the Environmental Calendar of BHU on 2 February 2010 & 2011 in the Department of Botany, BHU
- Worked in various committees for organizing Convocations of Faculty of Science and University
- Organizing Secretary, National Seminar: Emerging Trends in Environmental Management, Varanasi, 2001