

Brief Curriculum-vitae

Sudip Mitra, PhD

Fulbright Fellow (UC Davis, USA), Lead Fellow

Assistant Professor

Department of Environmental Science

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1. Education:

1996 - 2000: **Ph.D. in Environmental Sciences**, Indian Agricultural Research Institute (IARI), New Delhi, India. First Class Degree and selected for Jawaharlal Nehru Memorial Trust Scholarship for carrying out the PhD thesis research at the International Rice research Institute (IRRI), Manila, Philippines.

1994 - 1996: **M.Sc in Environmental Sciences**, Indian Agricultural Research Institute (IARI), New Delhi, First Class Degree.

2. Subject specialization & Research Interests:

Natural Resources Management, Livelihood Enhancement, Watershed management, Agro-ecosystem management, Climate change: Vulnerability and Adaptation at community level; Greenhouse gases management.

3. Courses taught:

Course Code	Course names	Class
ES 566	Soil Science	M.Sc.
ES-532	Agriculture and Environmental Sustainability	M.Sc.
ES 572	Natural Resources and Biodiversity	M.Sc.
ES-501	Fundamentals of Environmental Science	M.Sc.
ES-102	Elementary Environmental Science	Integrated M.Sc./M.Com/MA/B.Sc/BEEd
ES-543	Environmental Economics and management.	CBCT
ES-750	Research Methodology	Ph.D.
ES-720	Global Environmental Policy	Ph.D.

4. Recognition:

- **Invited panel speaker** in “Global Food Security-Creating resilience in the face of catastrophic climate change” (2013), University College London, London, UK.
- **Nehru-Fulbright Fellow** –Environmental Leadership (2011-12). At the Department of Plant and Environmental Sciences, UC-Davis, U.S.A. to work on ‘Carbon sequestration and GHG management under changing climate using simulation modelling approaches’.
- **Member of the Task Force** on convergence of programmes/schemes with National Rural Employment Guarantee Act (NREGA), Ministry of Rural Development, Government of India (2008).
- **Lead Fellow**, India (2008)
- **Invited Panel Speaker** in the 95th Indian Science Congress, Vizag.
- Awarded the prestigious **Jawaharlal Nehru Memorial Trust Scholarship** for PhD thesis research.

5. Award/Scholarship/Fellowship

- 2011 **2nd best poster** in the International Conference on Preparing Agriculture for Climate Change, Feb 6-8, 2011, Punjab Agricultural University, Ludhiana, India.
- 2001 Indian Council of Agricultural Research (ICAR) NET (National Eligibility Test for Lecturership, accredited by UGC).
- 1998 Jawaharlal Nehru Memorial Trust Scholarship for PhD thesis research.
- 1996 IARI Senior Research Fellowship
- 1994 IARI Junior Research Fellowship
- 1990 Jindal Merit Scholarship in Agriculture
- 1988 National Merit Scholarship

6. Previous Employment [last few]:

- Assistant Professor**, School of Environmental Sciences, Jawaharlal Nehru University (JNU), New Delhi.
- Assistant Professor** (In-charge for Climate change-vulnerability and adaptation) at the National Institute of Disaster Management, Ministry of Home Affairs, Government of India.
- Adjunct Faculty** at the TERI School of Advanced Studies (Deemed University) & Research Associate at TERI (Climate change- vulnerability and adaptation).
- Post Doctoral Fellow** Division of Ecology and Natural Resources, University of Bonn, Walter Flex Str. 3, D-53113, Germany.

7. Student supervision:

- 8 M.Sc. students (project; degree awarded)
- 1 MPhil student (degree awarded)
- 1 PhD student (degree awarded)
- 2 PhD students (continuing)

8. List of publications [Five selected ones]:

Papers published in journals [* corresponding author]:

- i. **Mitra, S***, Singh, P., Manzoor, S., Bhattacharyya, P., Bera, T., Kumar Patra, A., Rangan, L. and Borah, P. (2016), Can rice and wheat biochar amendment protect the carbon loss from tropical soils—An experimental study. *Environ. Prog. Sustainable Energy*, 35: 183-188
- ii. Singh, Pooja, Jaakko Heikkinen, Elise Ketoja, Visa Nuutinen, Ansa Palojarvi, Jatta Sheehy, Martti Esala, **Sudip Mitra**, Laura Alakukku, and Kristiina Regina. "Tillage and crop residue management methods had minor effects on the stock and stabilization of topsoil carbon in a 30-year field experiment." *Science of the Total Environment* 518 (2015): 337-344.
- iii. Mishra, S.N., **Mitra, S***, Rangan, L., Dutta, S. and Pooja (2012) Exploration of 'hot-spots' of methane and nitrous oxide emission from the agriculture fields of Assam, India. *Agriculture & Food Security*, 1:16. DOI: 10.1186/2048-7010-1-16.
- iv. **Mitra S**, Aulakh MS, Wassmann R. and Olk DC (2005) Triggering of methane production in rice soils by root exudates: Effects of soil properties and crop management. *Soil Science Society of America Journal*, 69: 563-570.
- v. **Mitra S***, Wassmann R and Vlek PLG (2005) An appraisal of the global wetlands area and its organic carbon stock. *Current Science*, Vol. 88 (1), 25-35.

Chapters in book:

- i. Dakua, T.B., Rangan, L. and **Mitra, S.** (2013) Greenhouse gases emission from rice paddy ecosystem and their management. In: *Crop Improvement under Adverse Conditions*, Eds. Narendra Tuteja, Sarvajeet Singh Gill, Springer, pp 65-89.
- ii. **Mitra, S.** and Rangan, L. (2009) Climate change: science and policies; In: *A Christian Response to Ecological Crisis*, eds. Thomas Manuel and Matthew Koshy, Christava Sahitya Samithi (CSS), Thiruvalla, pp 94-99.
- iii. **Mitra, S.**, Bhadwal, S. Kelkar, U. and Latha, R. (2006) Climate Change and Vulnerability in Indian Agriculture: A Major Hurdle towards Food Security, in: *Natural Hazards and Disaster Management-Vulnerability and Mitigation*, Ed. R.B.Singh, Rawat Publications, Jaipur, pp.273-288.
- iv. Pathak H., Kumar S., Jain N., and **Mitra S.** (2003) Emission of methane from soil. In Pathak, H. and Kumar, S. (Eds.) *Soil and Greenhouse Effect - Monitoring and Mitigation*. CBS Publishers and Distributors, New Delhi. pp. 18-32.

Other publications:

Conference [five selected ones]

- i. **Mitra, S.**, Pooja, Manzoor, S., Bera, T. and Patra, A.K. (2012) Differential effects of biochar on soil organic carbon dynamics in two agricultural soils. In: *proceedings of 3rd International conference on conservation agriculture in Southeast Asia*, Hanoi, 10-15 December, 2012. Hauswirth, D. et al. (Eds); pp 229-231.

- ii. Dakua, T.B. and **Mitra, S.** (2012) Impact of climate change on agricultural production and farming community in a semi arid agro ecology in India. In: proceedings of 99th Indian Science Congress, Part-II: Bhubeneswar, 3-7 January 2012; pp 132.
- iii. **Sudip Mitra**, R. Rengalakshmi, M. Nageswaran, S.V. Ramana, D. Rosario, S. Duraisamy, Sushanta K. Mahapatra & Sudha Nair (2008) Efficient Management of Natural Resources and Enhancing Livelihoods through Bio-Industrial Watershed Management Approach in Five Agroecologies in India, In: Proceedings of the International Conference on Conservation Farming Systems and Watershed Management in Rainfed Areas for Rural Employment and Poverty Eradication, 12-16 February, 2008, New Delhi.
- iv. **Mitra, S** (2007) Integrating Adaptation to Climate Change in to Disaster Management, 2nd International Conference on Community Based Adaptation to Climate Change, Dhaka, Bangladesh, 24-28 February, 2007.
- v. Jain MC, Pathak H, Kumar S, Bhatia A, Prasad S & **Mitra S** (2002) Nitrous oxide emission from alluvial Soils under Rice-wheat Cropping System in Indo-Gangetic plains of India: some mitigation options. In: van Ham, J., Baede, A.P.M., Guicherit, R. and Williams-Jacobse, J.G.F.M. (eds), Third International Symposium on Non-CO2 Greenhouse Gases (NCGG-3), Scientific understanding, control options and policy aspects, pp. 503-504, VVM, Maastricht, The Netherlands.

Technical Reports

- i. Stephen Barg, Preety Bhandari, John Drexhage, Ulka Kelkar, **Sudip Mitra**, Darren Swanson, Stephen Tyler, Henry David Venema (2006) Introduction chapter. In: Designing Policies in a World of Uncertainty, Change and Surprise: Adaptive Policy-making for Agriculture and Water Resources in the Face of Climate Change – Phase I Research Report.
- ii. **Sudip Mitra** and Jagjeet Singh Sareen (2006) Adaptive policy case studies: agricultural price policy in India. In: Designing Policies in a World of Uncertainty, Change and Surprise: Adaptive Policy-making for Agriculture and Water Resources in the Face of Climate Change – Phase I Research Report.
- iii. Stephen Tyler, Ulka Kelkar, Stephen Barg, Henry Venema, Darren Swanson, Preety Bhandari, John Drexhage, **Sudip Mitra** (2006) Synthesis and conclusions. In: Designing Policies in a World of Uncertainty, Change and Surprise: Adaptive Policy-making for Agriculture and Water Resources in the Face of Climate Change – Phase I Research Report.
- iv. **Mitra S.**, Wassmann R and Vlek PLG (2003) Global Inventory of Wetlands and their Role in the Carbon Cycle. ZEF - Discussion Papers on Development Policy No. 64, Center for Development Research, University of Bonn, pp. 44.

- v. Roseboom J., Beintema N., **Mitra S.**, Njobe B. & Ryan J. (2003) Building impact-oriented science, research and technology development and transfer institutions. Background paper, commissioned by the Inter Academy Council (IAC) study panel on Science and Technology Strategies for Improving Agricultural Productivity and Food Security in Africa; pp 38.

9. Journal Related Experience

Reviewer (5 selected ones):

1. *Agriculture, Ecosystems and Environment*, Elsevier, the Netherlands.
2. *Environmental Monitoring and Assessment*, Springer, the Netherlands.
3. *Atmospheric Environment*
4. *Journal of Ecology and Natural Environment*, Academic Journals.
5. *Annals of Applied Botany*

10. Lectures delivered/conferences [5 selected ones only]

- i) Invited Panelist in the International conference on “Global Food Security-Creating resilience in the face of catastrophic climate change” , Friday 8th February 2013, University College London, London, UK.
- ii) Delivered lecture on ‘Production, emission and mitigation of greenhouse gases from rice-wheat agro-ecosystems’ on 9th May, 2012 at Division of Plant Sciences, University of California, Davis, USA.
- iii) Invited expert for Global Science Conference on Climate Smart Agriculture at Ede-Wageningen, the Netherlands, 24-26 Oct, 2011.
- iv) Presented full paper on ‘Managing land and water under changing climatic conditions in India: A Critical Perspective’ in 16th Annual International Sustainable Development Research Conference 2010, 30 May- 1 June 2010, Hong Kong Convention and Exhibition Centre, Hong Kong.
- v) Invited speaker in World Rice Research Conference, 3-10 Nov 2004, Tsukuba, Japan.