

# Upasna Sharma

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## Research Interests

Upasna's research interests lie at the intersection of adaptation to climate change and risk reduction related to natural hazards and variability. Her work relates to conceptualizing and measuring vulnerability and adaptive capacity to climate risk. In the recent years she has asked questions related to the role of Information and Communication Technology (ICTs) in enhancing ability to respond to climate risk. Her recent sponsored projects have been related to this theme in the context of agriculture. In the past she has investigated questions on adaptive capacity in the context of extreme weather events like cyclones and public response to hazard early warnings. She has studied science-policy interactions and the effect of institutional features on landslide risk management systems.

## Education

- **Doctor of Philosophy (PhD):** 2002-2009, Shailesh J.Mehta School of Management, Indian Institute of Technology (IIT), Bombay, Mumbai. Thesis title: 'Enhancing Adaptive Capacity to Climate Risk'.
- **Master of Philosophy in Planning and Development:** July 2000 - January 2002, Department of Humanities and Social Sciences, IIT Bombay, Mumbai. Topped in all three semesters. CPI: 9.76/10. Dissertation Title: "Macro Prudential Indicators of a Sound Financial System."
- **Master of Commerce:** 1998-2000, Sri Ram College of Commerce, University of Delhi, Delhi. First class degree, specialization in Finance.
- **Bachelor of Business Administration (Honors):** 1994 -1998, Thames Valley University, London, through Apeejay School of Management, New Delhi. First class honors degree. Topper of the batch.

## Professional Employment

- **August 2018 to present:** Assistant Professor, School of Public Policy, IIT Delhi.
- **January 2013 to August 2018:** Assistant Professor, Department of Humanities and Social Sciences, IIT Delhi.
- **December 2011 to December 2012:** Assistant Professor, Department of Humanities and Social Sciences, Indian Institute of Technology, Madras.
- **October 2009 to September 2011:** Post-doc research scholar at the International Institute of Applied Systems Analysis (IIASA)
- **August 2008 to August 2009:** Associate Fellow at the Centre for Global Environment Change, The Energy and Resources Institute (TERI), New Delhi.
- **May 2008 to July 2008:** Research Associate at Technology Information Forecasting and Assessment Council (TIFAC), New Delhi.
- **February 2002 to May 2008:** Research Associate at IIT Bombay for the project "Human Dimensions of Global Change", funded by the US National Science Foundation, Principal Investigator: Prof. Anand Patwardhan

## Publications

### *Journal papers (peer reviewed):*

- Madhuri, **Sharma, Upasna** (2020). How do farmers perceive climate change? A systematic review. *Climatic Change*. <https://doi.org/10.1007/s10584-020-02814-2>
- **Sharma, Upasna**, (2018). Making Cyclone Forecasts Useful to Emergency Managers. *Economic and Political Weekly*, 53 (47).
- **Sharma, Upasna**, Anand Patwardhan and Anthony Patt (2013). Education as a determinant of response to cyclone warnings: Evidence from coastal zones in India, *Ecology and Society*, 18(2): 18.
- Panda Architesh, **Upasna Sharma**, K.N.Ninan, Anthony Patt (2013). Adaptive capacity contributing to improved agricultural productivity at the household level: empirical findings highlighting the importance of crop insurance, *Global Environmental Change*, 23(4): 782-790.
- **Sharma, Upasna**, Anna Scolobig and Anthony Patt (2012). “The effects of decentralization on production and use of risk assessment: insights from landslide management in India and Italy”, *Natural Hazards*, 64 (2): 1357-1371.
- **Sharma, Upasna** and Anthony Patt (2012). “Disaster warning response: the effects of different types of personal experience”, *Natural Hazards*, 60: 409-423.
- **Sharma, Upasna**, Anand Patwardhan and D. Parthasarathy (2009). “Assessing adaptive capacity to tropical cyclones in the East coast of India: A pilot study of public response to cyclone warning information”, *Climatic Change*, 94 (1-2): 189-209.
- Acosta-Michlik, Lilibeth, Ulka Kelkar and **Upasna Sharma** (2008). “A critical overview: Local evidence on vulnerabilities and adaptations to global environmental change in developing countries” *Global Environmental Change*, 18(4): 539-542.
- **Sharma Upasna** and Anand Patwardhan, (2008). “An empirical approach to assessing generic adaptive capacity to tropical cyclone risk in coastal districts of India”, *Mitigation and Adaptation Strategies for Global Change*. 13(8): 819-831.
- **Sharma, Upasna** and Anand Patwardhan, (2008). “Methodology for identifying vulnerability hotspots to tropical cyclone hazard in India”, *Mitigation and Adaptation Strategies for Global Change*, 13(7): 703-717.
- Patwardhan, Anand and **Upasna Sharma**, (2005). “Assessing Impacts of Natural Hazards through Changes in Flow Variables”, *Global and Planetary Change*, 47(2-4): 253-265.

### *Book chapters:*

- Sharma Upasna (one of the lead authors), 2019. 'Adaptation to Climate Change in the HinduKush Himalaya: Stronger Action Urgently Needed' in P. Wester, A. Mishra, A. Mukherji, A. B. Shrestha (eds) (2019)The HinduKush Himalaya Assessment—Mountains, Climate Change, Sustainability and

PeopleSpringer Nature Switzerland AG, Cham.

- Patwardhan, Anand and **Upasna Sharma**, (2006). “Human dimensions implications of using key vulnerabilities for characterizing dangerous and anthropogenic interference”, chapter 16 in *Avoiding Dangerous Climate Change*, Eds. Cramer, W, N. Nebojsa, T. Wigley and G. Yohe, Cambridge University Press, UK.
- Patwardhan, Anand, K. Narayanan, D. Parthasarathy and **Upasna Sharma**, (2003). “Impacts of Climate Change on Coastal Zones”, chapter 10 in *Climate Change and India: Vulnerability Assessment and Adaptation*, Eds. Shukla, P.R., Subodh K. Sharma, N.H. Ravindranath, Amit Garg and Sumana Bhattacharya, Universities Press, Hyderabad, India, pp 326-359.

*Contributions to reports and other publications*

- Pelling M, Bye L, Zehra Zaidi R, Scolobig A, **Sharma U**, Mafttei R, Tudor E, Mihai V, (2011). “The cultures of landslide risk management in Europe and India”. Deliverable 5.5, FP7 SafeLand Project - Living with Landslide Risk in Europe, WP 5.2 (December 2011)
- **Sharma, Upasna** and Sreeja Nair, with inputs from Prima Madan, (2008). “The face of hunger in a changing climate”. WSDF Newsletter 1(2): 4-13
- **Sharma, Upasna** and Suruchi Bhadwal (2008). “Adaptation Financing”. TERI Viewpoint Paper No. 6 prepared for the 14th Conference of Parties to the United Nations Framework Convention on Climate Change, 1-12 December 2008, Poznan, Poland.  
[http://www.teriin.org/eventdocs/files/Cop14/Ad\\_financing.pdf](http://www.teriin.org/eventdocs/files/Cop14/Ad_financing.pdf)

**Grant funded projects**

- **Principal Investigator for the project**, “ Assessing the value of ICT based agro-met advisories service to farmers in Haryana”. January 2017 to December 2018. Funded by ETH Zürich, Switzerland. Amount of grant: CHF 25,000 (Twenty Five thousand Swiss Francs).
- **Co-Principal Investigator for the project**, “ICT ecosystem, SMS based Agro Met information & Productivity of farmers: An Exploration”. December 2016 to June 2018. Funded by IIT Delhi for the Faculty Inter-disciplinary Research Projects. Amount of grant: INR 7.5 lakhs (Rupees Seven Lakhs and Fifty Thousand only).
- **Principal Investigator for the project**, “Assessing value of agro-met advisory services of India Meteorological Department to farmers in Haryana”. April 2015 to December 2016. Funded by South Asian Network for Development and environmental Economics (SANDEE). Amount of grant: USD 30,000 (US Dollars Thirty thousand).
- **Principal Investigator for the project**, “Assessing value of agro-met advisory services of India Meteorological Department to farmers in Haryana: A scoping study”. August 2014 to October 2014. Funded by South Asian Network for Development and environmental Economics (SANDEE). Amount of grant: USD 1000 (US dollars One thousand).
- **Co-Principal Investigator for the project**: “DST Centre for Policy Research”. 2014-2020. Funded by Department of Science and Technology,

India. Amount of grant: INR 1,00,00,000 per annum (Rupees One crore per annum).

- **Principal Investigator for the project**, “An Approach to Assessing Baseline Adaptive Capacity to Tropical Cyclone Risk”. August 2004 to October 2005. Supported by the Advanced Institute on Vulnerability to Global Environmental Change, a program funded by the David and Lucille Packard Foundation and Coordinated by START, USA, in partnership with IIASA, Laxenburg, Austria. Amount of grant: USD 10,000 (Ten thousand US dollars)
- **Principal Investigator for the project** “Improving Methodology for Assessing Impacts of Natural Hazards”. July 2003 to December 2003. Funded by ProVention Consortium (World Bank’s disaster management facility). Amount of grant: USD 2500 (Two thousand and five hundred US dollars).

### **Conferences and Workshops**

- Oral presentation on “Value of information in enhancing adaptive capacity of farmers to climate risk: Evidence from Haryana, India” at the University of Michigan Sustainable Development Conference, Michigan, USA, 11<sup>th</sup> - 14<sup>th</sup> October 2019.
- Invited lecture in the “Stakeholder’s Round Table: Adapting to Climate Change – Approaches, Challenges and the Way Forward”, Centre for Science and Environment, AAETI, Tijara, Rajasthan, 21<sup>st</sup> February, 2018
- Invited to a workshop titled the “Anthropocene Campus Philadelphia” 2017 held at Drexel University, Philadelphia, USA, from 22<sup>nd</sup> to 26<sup>th</sup> October 2017. Presented in the “Environing Technologies” and “Voice and Representation” sessions at the workshop.
- Oral presentation on “Impact of weather information on irrigation decisions and costs for farmers in Haryana” at the *Winter School in Research Methods*, 27<sup>th</sup> to 30<sup>th</sup> March, 2017, organized by South Asian Network for Development and Environmental Economics (SANDEE) at Nagarkot, Nepal.
- Invited lecture on "Randomised Control Trials" at CARIIA Economics of Adaptation Workshop, January 9 to 13, 2017 at TERI University
- Presented research progress at the South Asian Network for Development and Environment Economics (SANDEE), 33<sup>rd</sup> Biannual Research and Training Workshop, 14-17 December ,2016, Hotel FishTail Lodge, Pokhara, Nepal.
- Invited lecture on "Assessing the value of ICT based agro-met advisories to farmers in Haryana" at the Asian Development Bank and Asia Pacific Adaptation Network workshop on Adaptation to Climate Change on 28<sup>th</sup> June 2016 at Taj Palace Hotel in New Delhi.
- Presentation on "A review of traditional knowledge systems based indicators for making weather and climate related ex-ante agricultural decisions by farmers" at the 6<sup>th</sup> Conference of the International Society for Integrated Disaster Risk Management (IDRiM 2015), entitled *Disaster Risk Reduction: Challenges and Opportunities for Sustainable Growth* held at the Scope Convention Centre, Scope Complex, Lodhi Road, New Delhi, India, on October 28-30, 2015.

- Invited for the Policy Dialogue on Operationalizing Adaptive Governance in India, pan Asia, Pacific Network and The Energy and Resources Institute (TERI) held at India Habitat Centre, Lodhi Road, New Delhi 110003, 20th August 2014.
- Presented research progress at the South Asian Network for Development and Environment Economics (SANDEE) 30th Biannual Research and Training Workshop, Club Dolphin, Negombo, Sri Lanka June 29- July 3, 2015
- Presented research progress at the South Asian Network for Development and Environment Economics (SANDEE) 29th Biannual Research and Training Workshop, Kathmandu, Nepal, December 7-11, 2014
- Invited talk at the *Conference on Disaster Management: The Governance of Risk, Disaster Management and Humanitarian Action*, organized by O.P. Jindal Global University and Sydney Law School, University of Sydney, at O.P. Jindal Global University, Sonapat, from 3rd to 4th October 2013.
- Invited as a speaker in the debate “Are the products of climate impacts research really useful?” held at *Impacts World 2013: International Conference on Climate Change Effects*, Potsdam, Germany May 27 to 30, 2013.
- Invited to be a fellow of the *Dissertation Initiative for the Advancement of Climate Change Research VI* (DISCCRS VI) held at La Foret Conference Center, Colorado Springs, October 22 to 29, 2011.
- Invited to summer school on ‘*Water and Society: a space-time framework for integrated studies*’ France, May 8 to 13, 2011.
- Invited talk on “Impacts vulnerability and adaptation to climate change: Coastal regions and infrastructure” for *DFID Exposure Program on Climate Change* organized by The Energy and Resources Institute (TERI), New Delhi on 18-19th May 2009.
- Invited to the ‘*Cities at Risk*’ workshop organized by International START Secretariat, the East West Center and the Ibaraki University, Japan, held on 26-28 February 2009 in Bangkok, Thailand.
- Presented a poster on “Identifying constraints to translation of an adaptation intervention into ability to respond” at the conference ‘*Living with climate change: are there limits to adaptation?*’ held at the Royal Geographical Society, London from 7th to 8th February 2008.
- Presented a poster at *Young Scientists’ Conference on Global Change* held at Beijing, China, from 5<sup>th</sup> to 8<sup>th</sup> on “Assessing adaptive capacity to tropical cyclones in the East coast of India: A pilot study of public response to cyclone warning information” .
- Oral presentation on “Assessing adaptive capacity to tropical cyclones in the East coast of India: A pilot study of public response to cyclone warning information” at the *Third International Conference on Climate Impacts Assessment* (TICCIA), held at Cairns, Queensland, Australia from 24th to 27th July 2006.

- An oral presentation on “An empirical approach to assessing generic adaptive capacity to tropical cyclone risk in coastal districts of India” and a poster on “An approach to identifying natural hazard vulnerability hot spots using multiple dimensions of vulnerability” at the *IHDP Open Meeting* held at Bonn, Germany from 9th to 13th October 2005.
- An oral presentation on “Adaptive Capacity to Climate Risk and Human Security” at the International *Workshop on Human Security and Climate Change* held at Oslo, Norway from 21st to 23rd June 2005.
- An oral presentation on “Assessing Impacts of Cyclones as Changes in Economic Output” at the *Second International Conference on Climate Impacts Assessment (SICCIA)* held at Grainau, Germany from 28th June to 2nd July 2004.
- Invited to a roundtable dialogue on “*Adaptive Strategies for Responding to Floods, Droughts and Climatic variability*” held at New Delhi on 7th and 8th June 2004, organized by Institution for Social and Environmental Transition (ISET), Boulder, Colorado, USA, and its collaborators in South Asia.
- An oral presentation on “Improving Methodology for Assessing Impacts of Natural Hazards” at *Young Scientists’ Conference on Global Change* held at Trieste, Italy from 16th to 20th November 2003.
- An oral presentation at the “*Adaptation Research Workshop*” held at New Delhi from 9th to 11th Nov. 2003, organized by United Nations environment Programme (UNEP) and Ministry of Environment and Forests, India.

### **Professional Activities**

- Organizing Committee member of the 6th Conference of the International Society for Integrated Disaster Risk Management (IDRiM 2015), entitled “Disaster Risk Reduction: Challenges and Opportunities for Sustainable Growth” held at the Scope Convention Centre, Scope Complex, Lodhi Road, New Delhi, India, on October 28-30, 2015.
- Volunteered for Professional Ethics and Social Responsibility courses NEN 100 and NEN 101 at IIT Delhi during 2014-15 and also supervised a PESR project for a student.
- Reviewer for a number of prestigious journals such as *Climatic Change*, *Weather and Society*, and *Natural Hazards*.
- External examiner for PhD thesis of a student from CEPT University, Ahmedabad.
- Coordinated an IIASA workshop held in Ahmedabad on 20-21 Jan 2011, in collaboration with Technology Information Forecasting and Assessment Council (TIFAC) and Sardar Patel Institute of Economic and Social Research (SPIESR) which aimed to enhance interaction and collaboration between relevant Indian scientist and IIASA researchers.
- Guest Researcher at the International Institute for Applied Systems Analysis
- Reviewer (2005 to 2007) for Intergovernmental Panel on Climate Change (IPCC), Fourth Assessment Report published in 2007.

- Guest Editor (2006 to 2007) for START Special Issue in Global Environmental Change journal.
- Co-authored a case study (Oct. 2005 to April 2007) as a contribution to the VARIP (Vulnerability and Resilience in Practice) initiative, which was a part of the Sustainability Science and Technology Project (Harvard University).
- Fellow of the “Advanced Institute on Vulnerability to Global Environmental Change” held at International Institute of Applied Systems Analysis (IIASA), Laxenburg, Austria, (3-21 May 2004).
- Contributed to the India’s National Communication (NATCOM) to UNFCCC (2002–2003), in the assessment of vulnerability of Indian coastal zones.
- Junior Research Fellowship (JRF), April 2000, by University Grants Commission, India.
- Gold Medal for topping in BBA (Hons). 1998

**Awards  
Received**

**Personal  
Particulars**

*Date of Birth:* 5 July 1976                      *Gender:* Female

*Nationality:* Indian

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