

BIOGRAPHICAL SKETCH

Priyanka Jamwal

Fellow, Ashoka Trust for Research in Ecology and the Environment (ATREE)

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EDUCATIONAL QUALIFICATIONS

IIT Delhi

PhD, Environmental Engineering and Management, 2008

Dissertation Title: Point and Non-point source of pollution in Delhi city: Quantification and Management. Department of Civil Engineering, IIT Delhi, India.

Punjab University

M.E, Environmental Engineering, Punjab Engineering College, Chandigarh 2003

NIT Hamirpur

B.Tech Civil Engineering, National Institute of Technology, Hamirpur 2001

APPOINTMENTS

Fellow, ATREE April'2012- present

Research Associate, IISc Bangalore Sept'09- April'2012

Project Assistant, , IISc Bangalore Jan'08-Jun'08

Research Fellow, ENPC Paris France Dec'04-Jul'05

Publications

Journal articles

Jamwal, P., T. Md. Zuhail., P. Raje. Urs., V. Srinivasan & S. Lele, (2015). Contribution of Sewage treatment to pollution abatement of urban streams: A case study from Bangalore, *Current science*, (108) 4, 677-685

2013: Srinivasan, V., B.K. Thomas, **P. Jamwal** & S. Lele, 'Climate Vulnerability and Adaptation of Water Provisioning in Developing Countries: Approaches to Disciplinary and Research-Practice Integration', *Current Opinion in Environmental Sustainability*, 5(3-4): 378–83

Jamwal, Priyanka, Mittal, A.K and Mouchel J.M. (2011). Non point source microbial pollution: a case study of Delhi. *Physics Chemistry of Earth*. 36 (12) pp. 490-499.

Jamwal, Priyanka, and Mittal, A.K (2010). Removal of physiochemical and biological contaminants in different stages of wastewater treatment for Delhi city: implications to water use. *Resource Conservation and Recycling*, 54 (4) pp. 211-221.

Jamwal, Priyanka, Mittal, A.K and Mouchel J.M.(2008). Efficiency evaluation of wastewater treatment plants based on different treatment technologies in Delhi (India). *Environmental Monitoring and Assessment*, 153 (1-4) pp. 293-305.

Jamwal, Priyanka, Mittal, A.K and Mouchel J.M. (2007). Effects of urbanization on the quality of the urban runoff for Delhi watershed, *Urban water* 5 (3) pp. 247-257.

Jamwal, Priyanka, Mittal, A.K and Mouchel J.M. (2006). Study of the effect of different factors on fate of indicator micro-organisms in urban sewer systems, *Environmental Engineering and Management Journal*, 5 (3) pp.375- 381.

Proceedings /Discussion papers

Jamwal, P., B.K. Thomas, S. Lele & V. Srinivasan (2014): 'Addressing Water Stress through Wastewater Reuse: Complexities and Challenges in Bangalore, India', *Proceedings of the Resilient Cities 2014 Congress*, Bonn: ICLEI.

Lele, S., V. Srinivasan, **P. Jamwal**, B.K. Thomas, M. Eswar & T. Md. Zuhail (2013). 'Water Management in Arkavathy Basin: A Situation Analysis', *Environment and Development Discussion Paper 1*, Bengaluru: ATREE, ISBN 9788190233866

Mohan Kumar, M.S., Manohar Usha., D'Souza D. Celia.,Jamwal, Priyanka and Sekhar, M. (2011). Bengaluru: Water problem faced by the fast growing city of India, *Geological Society of India. Memoir 79*,pp 310

Conferences

Jamwal, P., Mohammed. Idris, P. Raje. Urs & S. Lele (2015) *Rethinking framework for instream and effluent water quality in the context of urban wastewater reuse in agriculture* In: national conference on National Conference on Challenges in Environmental Research, 04-06 June 2015, IIT Guwahati, Assam.

Jamwal, P., Naveen. M. N & Y. Javeed (2015) *Estimating fast and slow reacting component in surface and groundwater using 2R model*, In: national conference on National Conference on Challenges in Environmental Research, 04-06 June 2015, IIT Guwahati. Assam.

Thomas, B. K, **P. Jamwal**, S. Lele & V. Srinivasan (2014). *'Thinking About Urban Resilience: The Case of Water Scarcity and Wastewater Reuse in Bengaluru'*, *Urban Resilience: Proceedings of the Colloquium, Bengaluru: Public Affairs Centre*, ISBN 9788188816378.

Jamwal, P (2014). Wastewater treatment and reuse: complexities and challenges in Bangalore. Indo-US workshop on *Best Practices and Eco-restoration technologies for enhancing functional quality of urban landscapes*, 03-05 November 2014, Bangalore, INDIA.

Jamwal, P & T. Md. Zuhail (2013). *Impact of wastewater reuse in peri urban areas, Indo-UK Perspective on Water Quality: Threats, Technologies and Options*, 08 August, IISc, Bangalore

Mittal, A. K., Jain, M., **P. Jamwal** and Mouchel. M. (2006). Treatment of Urban Run off Using Constructed Wetlands in New Delhi, India. World Environment and Water resource congress; May 21-25 2006, Omaha, NE.

Jamwal, P., Mittal, A.K and Mouchel J.M. (2006) Non point source microbial pollution: a case study of Delhi in proceedings of the "Man and River Systems II" conference, Ed. PIREN-Seine, Pub. "Presses des Ponts et Chaussées", 123-125.

Jamwal, P., I, A., K Mittal and J. M. Mouchel (2005) Dry and storm weather behavior of E.coli in combined sewage, WWW-YES 4th World Wide workshop 10-13 May 2005, Vitry sur Seine – France.

Jamwal, P (2004). Impacts of urban runoff and wastewater emanating from Delhi on river Yamuna, WWW-YES 3rd World Wide workshop 12-15 May 2004, Vitry sur Seine – France.

Research Projects

2015-17: Co-Investigator. *Sustainable water management in Bangalore: towards a 2035 vision*, Funded by Royal Norwegian Embassy (India).

2012-15: Co-investigator. *Adapting to climate change in urbanizing watersheds* (ACCUWa), Funded by International Development Research Centre (IDRC). Principal investigator: Sharachchandra Lélé

2012-15: Principal investigator: *Water distribution network study on fate and transport of contaminant and its decontamination* by Pilot-Scale Tests, Funded by DST.

2011-16: Principal investigator. *Rural-urban conundrum: political economy of social and environmental transformation in agrarian landscapes*. Funded by Tata Social Welfare Trust (TSWT): Co-investigator: Bejoy K Thomas

2014: Co-Investigator. Strategy and action plan for strengthening the ecological and integrity of Dal Lake. 6 months study, Funded by UNDP

Teaching

2012, 2014, 2013: Environmental science and Environmental Science Lab (C1), Research methods (C4) co-taught, ATREE PhD programme

2012, 2014, 2013: Water and wastewater treatment systems. M.E water resources course at IISc Bangalore

Occasional lectures on introduction to water and wastewater treatment, for early and mid-career professionals based in academic centers and NGOs

Supervision

Approved PhD guide, Manipal University, India (Areas: Development Studies, Political Economy)

Guided project thesis of two masters and one undergraduate students

2014, Malavika G, Thesis title, '*Heavy metal budget in Vrishabhavathy catchment*', B.E, Dept. of Chemical engineering, BITS Goa, Duration - 8 months

2015, Naveen M N- Thesis Title- '*Analysis of chlorine decay in a lab scale water distribution system using aquasim*', M.E Water Resource Engineering, NIE Mysore, project duration - 8 months

2014, Mahadev Swamy – *Modelling chlorine decay behavior in scaled water distribution system using EPANET*, M.E Water Resource Engineering, NIE Mysore, project duration - 2 months

Occasional supervision of research interns at ATREE

Professional service

External

Reviewed research papers for Drinking water Journal and Journal of environmental science

Internal

2013-15: Chair, Committee against sexual harassment, ATREE

2012: Established state of the art *Water and Soil Lab* at ATREE

Outreach

2015 July: State of water pipelines a health risk, Water distribution network study featured in Times of India, July 6, 2015

2015 May: Even STP can't clean up Vrishabhavathy, ACCUWa/TSWT research featured in Bangalore Mirror, May 5, 2015

2015 April: Vrishabhavathy sewage treatment plant inefficient says study, ACCUWa/TSWT research featured in, The Hindu, April 30, 2015

2015 July: Co-organized a summer school on "Water and society" at ATREE, attended by fresh masters and early doctorate students

2014 Sept: Co-organized an expert workshop on water quality and peri-urban livelihoods

2013 Mach: signed MOU with KSPCB which allowed both parties to work on together to address the issues related to water in Bangalore and its peri-urban areas

2013 Mar: Arkavathy basin research for the ACCUWa project featured in DNA newspaper, Bangalore, March 15, 2013

2012 Nov: Co-organized an expert meeting on water management in Arkavathy basin, attended by government and civil society representatives, and scientists

External lectures

2015 March: Lecture on '*Water Quality in Urban Landscapes Issues & Challenges*', Key note speaker, In. National Conference on Sustainable Management of Urban Environmental Issues, DSU, Bangalore, India, 30 March 2015

2014, April: Lecture on '*Water and wastewater treatment technology*', Training programme on "Environment Audit" at Regional Training Centre (RTC), Bangalore

Participation

2015 June: *Workshop on Linking Robotics, Citizen Science, and Remote Sensing to Advance Water Science in Data-Scarce Regions*, ATREE, University of Illinois, Bangalore, India.

2015 Jan: *Workshop on addressing knowledge gaps to solve India's Water Problems: Challenges for Hydrologic Sciences*, ATREE Bangalore, India.

2015 Feb: *India Wash Summit*, Ministries of Drinking Water & Sanitation and Urban Development, Government of India, and WaterAid, New Delhi, India.

2013 Dec: *State level Consultative Workshop on Impacts of Climate Change on Water and Sanitation*, TERI Bangalore, India.

2013 March: *A round table to evolve an integrated strategy for augmenting water resources to support increasing demand of a rapidly expanding metropolis* – Bangalore, KSCST, BWSSB and GSI, Bangalore.

2013 March: Centre for Science and Environment, New Delhi, India; Anil Agarwal Dialogue 2013