Integrated Curriculum Vitae

Kritee, Ph.D.
Climate Scientist
Zen Buddhist priest
Grief Ritual Leader and Climate Justice Advocate

Cell 732-277-8134
E-Mail kriteek@gmail.com
Website boundlessinmotion.org

Positions

Boundless in Motion
Spiritual Director, Zen priest and Co-Founder (Nov 19 – present)

- Vision-holder and grant writer for the 501(c)3 nonprofit corporation
- Lead teacher of Zen intensives (Sesshins) and grief ceremonies
- Lead teacher of Ecodharma retreats for people of color
- Lead organizer-teacher of courses on Science, Trauma healing & Strategic actions
- Author and Invited speaker for NYTimes, National Public Radio, Stanford University, many esteemed publications from Harvard, Yale and others

Environmental Defense Fund
Senior Scientist and Director, Climate Smart Agriculture (Oct 22 – July 23)
Senior Scientist, Climate (Jan 14 – Sept 22)
High Meadows Post-doctoral Fellow, Office of Chief Scientist (Nov 11 – Dec 13)

Global Climate, environment and health expert involving mercury, nitrogen and agriculture

- Director of Climate Smart Agriculture team in India
    - Lead Researcher for "Climate smart farming emission measurement program"
    - Participant in presenting and writing proposals/reports to funders
    - Manager of 20 personnel in 5 laboratories across 4 states in India
    - Frequent traveler to India to train multi-partner and multi-lingual team
    - Author of many agro-economy centric peer-reviewed articles

- Published in 6 peer reviewed journals and 8 conference proceedings (~150 citations)
- Collaboration broker for EDF, agriculture & climate experts in Asia and the U.S.
- Developer of climate smart farming based carbon offset methodologies
- Advisor to Legal Counsel team on the Mercury and Air Toxics Standards
- Advocate among scientists & EDF staff blogger

Princeton University
Dreyfus Post-doctoral Fellow, Dept. of Geosciences (July 08 – Aug 10)

Reactive nitrogen, biogeochemistry, ocean and climate research

- Studied bacterial denitrification and global budget of nitrogen in the ocean
- Published 6 peer reviewed articles and proceedings (~250 citations)

Rutgers University
Post-doctoral research faculty, Dept. of Environmental Science (Sept 10- Oct 11)
Doctoral research assistant (Sept 04- June 08)

Mercury, geochemistry, genetics and bioremediation research:

- Developed techniques to differentiate between different sources of mercury
- Published 13 frequently cited articles and proceedings **(~900 citations)**
- Co-authored three major Federal funded grants (>$2 million),
- Received 5 International and domestic awards

New Jersey Board of Public Utilities
Eagleton Fellow, Bloustein School of Planning & Public Policy (Jan -May 08)

Indian Institute of Technology, New Delhi, India (Jun 20-May 01)
Masters of Technology Research Fellow

- Developed a computational model to predict genes in microbial genomes
- Published a peer reviewed paper (~70 citations)

Queensland Institute of Medical Research, Australia (Apr–Aug 99)
Cancer research Intern

Ecodharma leadership

Interface of Climate Justice, Spirituality and Education

- Co-Founder & Board of Director, Rocky Mountain Ecodharma Retreat Center (2017-present)
- Co-Founder and Executive Director, Boulder Ecodharma Sangha (2013 – 2020)
- Faculty, Ecosattva training, One Earth Sangha which is expressing a national Buddhist response to climate change and other threats to our one home (2017- present)
- Co-Founder and faculty, Earth-Love-Go, Lama Foundation (2016 – 2020)
- Guest lecturer, Naropa University Peace Studies program (2016 – 2019)
- Mentor, Earth Guardians (Indigenous youth activists) (2018 - 2019)

Education

1996-2001 B.S and M.S (Integrated Bachelors and Masters of Technology)
Department of Biochemical Engineering & Biotechnology
Indian Institute of Technology, New Delhi (IITD), India

2001-08 Ph.D., Microbiology and Molecular Genetics Program,
Department of Microbiology and Biochemistry
Rutgers University, New Jersey

2007-08 Governor's Executive Fellowship
Eagleton Institute of Politics, Rutgers University

2016 Permaculture Design Course (PDC)
Central Rocky Mountain Permaculture Institute

2017-18 Eco-Social Design & regenerative livelihoods certificate course
Gaia University

Professional organizational experience

1. Lead designer and trainer: Climate Smart Agriculture: Train the trainer curriculum (2022-2023) – Developed and conducted several multi-day trainings for the executive team of Syngenta Foundation (India) and Agri Entrepreneur Growth Foundation (AEGF) as well as their ~40 faculty members who will ultimately train their network of Agriculture Entrepreneurs (AEs). The training curriculum involved modules on basics of climate crisis, impact on Indian agriculture and economy, requirements of carbon markets, Nitrogen management through N balance/surplus framework to reduce nitrous oxide emissions, Water management for rice mitigation and soil health. The objective was to train 100,000 AEs who will connect with 1 crore (10 million) farmers over the next six years.

2. Lead Scientist for EDF within the FRAMES coalition funded by Sequoia Climate Foundation (2022-2023) Helped create models and equations to relate farmer activity data (Nitrogen, water or fuel use) into emission rates of heat trapping gases nitrous oxide and methane

emissions on the basis of our previous work in India. Guided the work by Indian Institute of Management's FABLE calculator land use decision tool and helped create online tools/app with the goal of giving government, nonprofit and government extension workers pathways to collect the right datasets needed for Monitoring, Reporting and Verification of Climate impacts of their work.

3. Lead Scientist for EDF within the Soil Intelligence System consortium (2019-2021): EDF and the larger research consortium consisting of Cornell University, International Soil Reference and Information Centre (ISRIC), Consultative Group on International Agricultural Research (CGIAR/CIMMYT), Department of Agriculture (Bihar State Government), Rajendra Prasad Central Agricultural University (RPCAU, Bihar). Helped execute a massive exercise of collecting over 700 soil samples and farmer production practice surveys across the entire state of Bihar in addition to several thousand already archived consortium samples. In the district of West Champaran, guided EDF research team of 15 field personnel to assemble geo-referenced database on soil fertility indicators including texture and soil compaction data and corresponding farm management conditions from close to 250 farms so that Nitrogen use efficiency can be calculated. Also led daily collection water level data from 50 rice fields for two years to evaluate the impact of different management practices on agricultural yields, GHG emissions, as well as on other co-benefits and to give farmers tailored farm advisories.

4. Lead organizing scientist – Estimating the impact of Land Management Projects on climate change mitigation: A Carbon Benefits Project and WOCAT training organized by Colorado State University (CSU), Environmental Defense Fund (EDF), United Nations Environment (UNEP), Global Environment Facility (GEF) The Ambassador Hotel, New Delhi, India (Press release) (2019)

5. Convener and organizer – Estimating the impact of different farm management practices on climate: A Carbon Benefits Project training, Boulder, Colorado (2019)

6. Leading convener: Environmental Defense Fund and Farms n' Farmers joint research meeting, Patna, India (2017-2020)

7. Lead convener "Climate smart farming of rice, millets and groundnut: Final result dissemination tour in Andhra Pradesh, Tamil Nadu and Karnataka (2016)

8. Lead convener "The influence of changes in farming practices, vegetation, and land-use on climate adaptation, mitigation and ecosystem and socio-economic services" International American Geophysical Union's Fall meeting (2014)

   Mitigating greenhouse gas (GHG) emissions associated with farming and land use are crucial for avoiding catastrophic climate change. Yet these objectives must be achieved while improving yields to meet the fuel, food and fiber needs of a growing population. The presentations included discussion of the effect of innovative wet (i.e., rice) and dryland farming techniques (including water, fertilizer and/or soil management) on GHG emissions, yields, and socio-economic services.

9. Co-convener of a Special Session entitled "Mercury Emission Reductions in the Power Sector in the U.S" at the 11th ICMGP International Conference on Mercury as a Global Pollutant, Edinburgh, Scotland (2013)

10. Co-organizer of "Greenhouse gas (GHG) emission modeling," an Emerging Issues workshop at Environmental Defense Fund (EDF), New York (2013)

    EDF is engaged in a number of agricultural projects where accurate estimates of GHG emissions are needed. Modeling GHG emissions can provide a cost-effective understanding of the carbon footprint of farming activities. Several models (e.g., DNDC and Daycent) are available for estimating GHG emissions and EDF is interested in better understanding these models and where best to apply them.

11. Convener and organizer "Greenhouse gas (GHG) emission measurement," a hands-on workshop for laboratory staff and experts from the Fair Climate Network, Accion Fraterna Ecology Centre, Anantapur, Andhra Pradesh, India (2012)

12. Convener: Letter to President Barack Obama in support of Mercury and Air Toxics Rule by mercury physicians and scientists (2011)

13. Organizer -Mercury Biogeochemical Cycling Journal Club, Rutgers University (2011)
Biweekly discussion of hot papers in mercury biogeochemistry for members of several mercury Laboratories at Rutgers and Princeton

14. Co-convener of a session entitled "Mechanistic Understanding of Factors Influencing Non-mass Dependent Fractionation" at American Geophysical Union (AGU)'s Fall Meeting from 14th to 18th December (2009) in San Francisco, CA.

15. Interdisciplinary Environmental Remediation Discussion Club, "PCB contaminated Hudson River Superfund Site" Rutgers University (Spring 2004)
For a group of faculty members, students, community activists and representatives from NJ Department of Environmental Protection held weekly debates on the health effects, risk perception and assessment, and technical feasibility of the available remediation options.

Major Scientific Research Projects

- Assessing soil health and establishing linkages to climate-smart crop intensification in the Eastern Gangetic Plain of India: Low-cost high-accuracy soil carbon analysis in Bihar for food security and climate mitigation (2018 – present) in collaboration with Cornell University, Bihar Agricultural University, International Maize and Wheat Improvement Center (CIMMYT), The Cereal Systems Initiative for South Asia (CSISA), Government of Bihar and World Agroforestry (ICRAF).

- Climate smart rice-wheat farming in West Champaran Bihar: Understanding the impact of 360 degree services to farmers through mobile app called DeHaat (2016- present) in collaboration with Green Agrevolution

- Baseline nitrogen use, farmer yields and socio-economic status of farmers in West Champaran (2018-2019) With Green Agrevolution and Sambodhi Research & Communications

- Climate smart agriculture in peninsular India: Understanding the role of water, fertilizer and organic matter application in controlling the emission of greenhouse gases (nitrous oxide and methane), soil health and water quantity and quality at small-holder farms in Asia (2011-2016) with Prof. Steven Hamburg, Chief Scientist, Environmental Defense Fund and multiple partners in India

- Stable isotope fractionation during denitrification & implications for marine N isotope budget (2008-2011) with Postdoctoral Advisor, Prof. Daniel Sigman, Princeton University

- Stable isotope fractionation of mercury during its microbial transformations (2002-07) with Prof. Tamar Barkay and John Reinfelder, Rutgers Univ. and Prof. Joel Blum, Univ. of Michigan

- A chemical & computational model to predict genes and analyze prokaryotic genomes (2000-2001). (Masters Advisor: Prof. B. Jayaram, Indian Institute of Technology)

- Study of molecular interactions of a putative tumor suppressor protein p73. (1999) with Prof. Martin Lavin, Molecular Oncology Lab, QIMR, Australia

Peer reviewed publications

1. J. Rudek, Tinh T. K.,Tin H. Q., Sanh N. V., Thu Ha T., R. Ahuja, **K. Kritee**, S. Hamburg and *five others* (2023) Triple win through low carbon rice farming in the Mekong Delta: higher yields, more profits and reduced greenhouse gas emissions due to water and nitrogen management. *Submitted*

2. **K. Kritee** et al. (2023). Data for: Nitrous oxide emissions from groundnut and millets farms in semi-arid peninsular India [Dataset]. Dryad.

3. **Kritee K.,** D. Nair, S. Balakrishna, L. Venkataiah, S. Reddy, O. Dava, R. V. Dokka, D. Zavala-Araiza, J. Rudek, T. Loecke, V. Manikandan, J. Proville, U. Vaddi and R. Ahuja (2022). Non-linear reduction in nitrous oxide emissions through alternative management of groundnut and millets in India: Results and discussion of a multi-year nitrous oxide emissions measurement study conducted in semi-arid peninsular India. Published by Environmental Defense Fund, New York, NY (PDF)

4. L. C. Motta, **K. Kritee**, J. D. Blum, M. Tsz-Ki Tsui and J. R. Reinfelder (2020) Mercury Isotope Fractionation during the Photochemical Reduction of Hg (II) Coordinated with Organic Ligands *Journal of Physical Chemistry* 124 (14) 2842-2853

5. **Kritee K.,** Joseph Rudek, Jeremy Proville, Tapan K. Adhya, Terrance Loecke, Drishya Nair, Richie Ahuja, and Steven P. Hamburg Reply to Wassmann et al. (2019): More data at high sampling intensity from medium- and intense-intermittently flooded rice farms is crucial. *Proceedings of National Academy of* Sciences 116 (5) 1466-1467

6. **Kritee K.,** Joseph Rudek, Steven P. Hamburg, Tapan K. Adhya, Terrance Loecke, and Richie Ahuja (2018) Reply to Yan and Akiyama: Nitrous oxide emissions from rice and their mitigation potential depend on the nature of intermittent flooding *Proceedings of National Academy of* Sciences 115 (48) E11206-E11207

7. **Kritee K.,** D. Nair, J. Proville, D. Zavala-Araiza, R. Ahuja, J. Rudek, T. Esteves, T. Adhya, S. Hamburg, T. Loecke and *10 others* (2018) High nitrous oxide fluxes from rice indicate the need to manage water for both long- and short-term climate impacts. *Proceedings of National Academy of* Sciences 115 (39) 9720-9725

8. **Kritee, K.,** L. C Motta, M. Tsui, J. D. Blum, J. R. Reinfelder (2017) Photomicrobial Visible Light-Induced Magnetic Mass Independent Fractionation of Mercury in a Marine Microalga. *ACS Earth Space Chem.*, 2 (5), 432-440

9. **Kritee K**., Nair, D., Tiwari R., Rudek J., Ahuja R., Adhya T. K., Loecke T., Hamburg S., Tetaert, F., Reddy S., Dava O. (2015) Groundnut cultivation in semi-arid peninsular India for yield scaled nitrous oxide emission reduction. *Nutrient Cycling in Agroecosystems* 103 (1): 115-129.

10. Tiwari R., **Kritee K**, Adhya T. K., Loecke T., Rudek J., Nair, D., Ahuja R., Balireddygari S., Balakrishna S., Ram K., Venkataiah L.C., Dava O., Madasamy M., Salai A. (2015), Optimization of sampling and analytical methodology for measurement of greenhouse gas emissions from small-scale rainfed cropping systems of peninsular India. *Carbon* management 6:169-184

11. **Kritee, K.,** J. D. Blum, J. R. Reinfelder and T. Barkay (2013) "Microbial stable isotope fractionation of mercury: A synthesis of present understanding and future directions." *Chemical Geology* **336:** 13-25

12. **Kritee, K.**, D. M. Sigman, J. Granger, A. Jayakumar, C. Deutsch (2012) Reduced isotope fractionation by denitrification under conditions relevant to the ocean. *Geochimica et Cosmochimica Acta* **92:** 243-259.

13. Karsh, K. L., J. Granger, **K. Kritee** and D.M. Sigman (2012), Eukaryotic assimilatory nitrate reductase fractionates N and O Isotopes with a ratio near unity. *Environmental Science and Technology,* 46 (**11**): 5727-35.

14. T. Barkay, **Kritee K.**, E. Boyd, and G. Geesey (2010), A thermophilic bacterial origin of the microbial mercuric reductase and subsequent constraints on its evolution by redox, light, and salinity, *Environmental Microbiology*. **12** (11):2904-2917.

----- Evaluated as a ***Must Read*** by Faculty of 1000

15. **Kritee K.,** T. Barkay and J. D. Blum (2009), Mass dependent stable isotope fractionation of mercury during *mer* mediated microbial degradation of monomethylmercury *Geochimica et Cosmochimica Acta*. **73** (5): 1285-1296

16. **Kritee K.,** J. D. Blum and T. Barkay (2008), Mercury stable isotope fractionation during reduction of Hg(II) to Hg(0) by different microbial pathways, *Environmental Science and Technology.* **42** (24): 9171–9177.

17. **Kritee K.,** J. D. Blum, M. W. Johnson, B. A. Bergquist and T. Barkay (2007), Mercury stable isotope fractionation during reduction of Hg(II) to Hg(0) by mercury resistant microorganisms. *Environmental Science and Technology.* **41:**1889-1895

----- A **"hot"** and "**a most cited**" ES&T article in 2007

18. S. Dutta*, P. Singhal*, P. Agarwal*, R. Tomer*, **Kritee K**.*, E. Khurana and B. Jayaram (2006), A Physicochemical Model for analyzing DNA sequences. *Journal of Chemical Information and Modeling* **46**: 78-85

*** equal contributors**

Published conference proceedings

19. **K. Kritee**, D. Nair, D. Zavala-Araiza, J. Proville, T. Adhya, J. Rudek, T. Loecke, S. Balireddygari, K. Ram, M. Reddy, D. Athiyaman, R. Ahuja, S. Hamburg (2018) Recently discovered high nitrous oxide fluxes at rice farms worrisome but manageable with co-management of water and fertilizers. Agricultural GHG Emissions and Food Security – Connecting research to policy and practice –Edited by C. Heidecke, H. Montgomery, H. Stalb, and L. Wollenberg (Berlin, Germany).

20. Richie Ahuja, **K. Kritee**, Sarat Kannepalli, Rishika Jerath, Prashant Chavhan, Kamal Krishna Singh, Shashank Vatsa (2018) Scaling up climate-smart farming practices through ICT enabled platforms in India. Agricultural GHG Emissions and Food Security – Connecting research to policy and practice –Edited by Claudia Heidecke, Hayden Montgomery, Hartmut Stalb, Lini Wollenberg (Berlin, Germany).

21. **K. Kritee**, R. Ahuja, D. Nair, T. Esteves, J. Rudek and T. T. Ha (2015) Identifying, monitoring and implementing "sustainable" agricultural practices for smallholder farmers over large geographic areas in India and Vietnam *Eos Trans. AGU* Fall Meet. Suppl., GC12C-05

22. **K. Kritee**, R. Tiwari, D. Nair, T. Adhya & J. Rudek (2014), Creating rigorous pathways to monetize methane & nitrous oxide emission reductions at small rice farms in semi-arid peninsular India *Eos Trans. AGU* Fall Meet. Suppl., GC11E-0597

23. S. Rajan, **K. Kritee**, C. Keough, W. Parton and S. M Ogle (2014), Calibration of Daycent biogeochemical model for rice paddies in three agro-ecological zones in Peninsular India to optimize cropping practices and predict GHG emissions *Eos Trans. AGU* Fall Meet. Suppl., GC11E-0599

24. J. Rudek, N. Sanh, T. Tinh, H. Tin, T. T. Ha, D. Pha, T. Q. Cui, N. H. Tin, N. N. Son, H. H. Thanh, H. T. Kien, **K. Kritee** and R. Ahuja (2014), Low Carbon Rice Farming Practices in the Mekong Delta Yield Significantly Higher Profits and Lower Greenhouse Gas Emissions *Eos Trans. AGU* Fall Meet. Suppl., GC11E-0600

25. **K. Kritee,** R. Tiwari, D. Nair, T. D. Loecke, T. K. Adhya, J. Rudek, R. Ahuja, S. Hamburg (2013) Greenhouse gas emissions from rice, peanut and millet farms in peninsular India: Effects of water and nitrogen management *Eos Trans. AGU* Fall Meet. Suppl., GC33A-1098

26. J. Rudek*,* **K. Kritee**, R. Ahuja (2012*)* Optimizing nitrogen fertilizer use on small landholder farms in India and Vietnam. "Reactive Nitrogen from Agriculture: Emissions, Consequences, and Management", American Chemical Society National Meeting, Philadelphia, PA

27. **Kritee K.** (2010), Mass Independent Fractionation of Mercury and Microbiology: Where Can They Intersect? *Geochimica et Cosmochimica Acta.* **74** Supplement 1: A541 (**Invited)**

28. Deutsch, C. A.**, K. Kritee**, D. M. Sigman, S. Khatiwala and J. Granger (2010), The isotopic signature of denitrification and the global marine nitrogen balance, *Eos Trans. AGU,* **91***(26)*, Ocean Sci. Meet. Suppl., Abstract IT11A-05

29. **K. Kritee**, D. M. Sigman, and J. Granger (2010), Dependence of the Nitrogen Isotope Effect of Denitrification on the Cell Specific Nitrate Reduction Rate and its Implications for Denitrification in the Ocean, *Eos Trans. AGU,* **91***(26)*, Ocean Sci. Meet. Suppl., Abstract IT 11A-06

30. **K. Kritee**, D. M. Sigman, and J. Granger (2009), Nitrogen Isotope Fractionation Increases with the Cell-Specific Dissimilatory Nitrate Reduction Rate, *Eos Trans. AGU,* **90***(52)*, Fall Meet. Suppl., Abstract H53D-0964

31. J. Granger, K. Karsh, W. Guo, D. Sigman and **Kritee K.** (2009) The Nitrogen and Oxygen isotope composition of nitrate in the environment: The systematics of biological nitrate reduction. *Geochimica et Cosmochimica Acta*, **73** (13) Supplement 1:A357

32. **Kritee K.,** T. Barkay and J. D. Blum (2008) Absence of magnetic isotope fractionation for Hg during dark biological processes: experimental evidence and theoretical considerations *Eos Trans. AGU**, 89*** (53), Fall Meet. Suppl., V52B-06 **(Invited)**

33. **Kritee, K.**, Barkay, Tamar, Blum, J. D. (2008) Mass dependent isotope fractionation of Hg during biotic degradation of methyl-Hg & reduction of Hg(II). *Geochimica et Cosmochimica Acta*, ***72*** (12) Supplement 1: A499.

34. **Kritee, K.**, Blum, J. D., Johnson, M. W., Bergquist, B. A., Barkay, T. (2007) Variation in the extent of mercury (Hg) stable isotope fractionation during reduction of Hg(II) to Hg(0) by different microbial strains *Abstracts of the 107th General Meeting of the American Society for Microbiology*, p*107*.

35. **Kritee K.**, B. Klaue, J. D. Blum and T. Barkay (2005), Biological mercury isotope fractionation. *Geochimica et Cosmochimica Acta.* **69** (10) Supplement 1: A708

36. **Kritee K**., B. Klaue, T. Barkay & J.D. Blum (2004), Mercury isotopic fractionation observed during the reduction of Hg(II) to Hg(0) by the bacterial mercuric reductase. Presented at The 7th International Conference on Mercury as a Global Pollutant, Ljubljana, Slovenia, 2004 *RMZ – Materials and Geoenvironment.* **51**(2): 1154-55.

U.S. Federal and other research grants

- Principle Investigator (Co-PI) & co-author for a Atkinson-Environmental Defense Fund (EDF) Postdoctoral Fellowship grant: Assessing soil health and establishing linkages to sustainable crop intensification in the Eastern Gangetic Plain of India (2018)

- Principle Investigator & co-author for an ICCO Foundation grant: The Low Carbon Farming Emissions Measurement & Methodology Development Project (2013)

- Lead researcher and consultant for writing a grant funded by the National Science Foundation (NSF): "Mass-Dependent and Independent Mercury Isotope Fractionation during Microbial Methylation and Redox Transformations in Natural Waters" (2009)

- Isotope consultant for a grant funded by the Department of Energy (DOE): "Defining the Molecular-Cellular-Field Continuum of Mercury Detoxification" (2008)

- Participation in writing and researching for a funded National Science Foundation (NSF) grant "Collaborative research: Mercury isotope fractionation during microbial and abiotic redox transformations" (2004)

- United States Geological Survey (USGS) funded New Jersey Water Research Resource Institute (NJWRRI) Graduate Student Grant

Science and policy: Reports, white papers, databases and comments

1. **Kritee K.** (2020) Fifteen entries in the United Nation's Intergovernmental Panel on Climate Change Emission Factor Database (IPCC EFDB) on Direct N2O Emissions from managed rice, millet and groundnut farms, EF-ID 424300-424314 (Link)

2. **Kritee K.,** Drishya Nair, Daniel Zavala-Araiza, Malla Reddy, Jeremy Proville and Richie Ahuja (2019). Climate smart farming in India: A pathway to poverty alleviation, food security, and climate adaptation and mitigation. An online report with greenhouse gas flux data from rice and non-rice cropping systems from four agro-ecological regions in India. Published by Environmental Defense Fund, New York, NY. (Link)

3. Coauthor (2019) Environmental Defense Fund submission to UNFCCC on Topics 2(b) and 2(c) of Decision 4/CP.23, related to the Koronivia Joint Work on Agriculture (Link)

4. **Kritee K.,** J. Proville, D. Zavala-Araiza, J. Rudek, R. Ahuja, S. Hamburg, T. K. Adhya, T. Loecke and D. Nair. (2018) Global risk assessment of high nitrous oxide emissions from rice production. Incorporating the discovery of high N2O fluxes under intermittent flooding. A White paper. Published by Environmental Defense Fund, New York.

5. **Kritee K.,** J. Rudek, J. Proville, T. K. Adhya, T. Loecke, D. Nair, R. Ahuja, and S. P. Hamburg (2018) More data at high sampling intensity from medium and intense-intermittently flooded rice farms is crucial. Supplementary information for response to Wassman et al published by Proceedings of National Academy of Sciences Published by EDF, New York.

6. **Kritee K.** (2016) Environmental Defense Fund's Comments on Gold Standard's Cool Farm Tool based methodology.

7. Robert Parkhurst, **Kritee K.** and 12 other EDF co-authors (2016) Environmental Defense Fund's response to Clean Development Mechanism's Concept Note: Exploration of methodological options for developing 'agriculture CDM' (CDM-EB87-AA-A10)

8. **Kritee K.** (2015) Comment to Global Research Alliance: Agricultural climate adaptation-mitigation synergies

9. **Kritee K.** (2014) Inter-comparison of existing agricultural carbon offset methodologies approved by Verified Carbon Standard (VCS), American Carbon Registry (ACR), Clean Development Mechanism (CDM), and Climate Action Reserve (CAR) submitted to ICCO Cooperation and VCS.

International scientific presentations

1. **Kritee K.,** Non CO_2 emissions from rice and non-rice crops in India, 17th Expert Meeting on Data for the Intergovernmental Panel on Climate Change (IPCC) Emission Factor Database, **2019** Osaka, Japan

2. S. Kannepalli, S. R. Sherpa, **Kritee K**, R. Jerath, K. K. Singh, S. Kumar and R. Ahuja, Climate-smart Agriculture through an ICT Enabled Platform and Low-cost High-accuracy Soil Health

Assessment in Bihar (India). International Conference on Crop Residue Management: Organized by Bihar Agricultural University, Patna (India) India Oct 14-15, 2019

3. **Kritee K.,** Rice-solve: How can rice farming improve economic and environmental security? Sustainable Rice Conference, Bangkok, Thailand Oct 2, 2019

4. **Kritee K.,** R. Ahuja, T. Adhya *et al.* Generalized recommendations for farmers for reducing both nitrous oxide and methane emissions from rice: Importance of monitoring flooding regimes. International Rice Congress 15-17 Oct, 2018 Singapore

5. **Kritee K.,** D. Nair, R. Ahuja *et al.* High nitrous oxide fluxes under reduced flooding conditions indicate need to co-manage water and nitrogen at rice farms. International Rice Congress 15-17 Oct, 2018 Singapore

6. **Kritee K.,** High nitrous oxide fluxes at rice farms: Special short talk at 'Carbon Sequestration for Climate Change Mitigation' Session at the 5th International Rice Congress – A Joint Session Organized by IRRI and "4 per 1000" Initiative. 15-17 Oct, 2018 Singapore

7. S. Kannepalli, **Kritee K**, R. Ahuja, S. Kumar and K.K.Singh, Sustainable Agriculture Through ICT Enabled Platform in Bihar, India. Oral presentation during 'Disruptive technologies and innovations' session at the 5th International Rice Congress, 15-17 Oct, 2018 Singapore

8. Sherpa S., McDonald A. and **Kritee K.**, Assessing soil health and establishing linkages to sustainable crop intensification in Bihar (India) at the Soil Intelligence Systems International working group meeting including Cornell University, Bihar Agricultural University (Sabour), International Maize and Wheat Improvement Center (CIMMYT), Government of Bihar and World Agroforestry (ICRAF). Sept 2019, Patna, India.

9. **Kritee K.** & Richie Ahuja Rice nitrous oxide: a new solvable problem. FAO organized workshop on Rice Landscapes & Climate Change: Options for mitigation in rice-based agroecosystems and Scaling-up of climate-smart rice cultivation technologies in Asia. Bangkok 10-12 Oct 2018

10. S. Kannepalli, **Kritee K**, D. Nair, R. Tiwari and R. Ahuja, Climate smart farming in four agro-ecological regions in peninsular India. International Meeting and Workshop on Building Perspective and Capacity to Measure Climate Change Impacts due to Changes in Agricultural Practices Vijayawada, Andhra Pradesh, India Oct-Nov 2017

11. **Kritee K**, D. Nair, D. Zavala-Araiza, J. Proville, R. Ahuja, J. Rudek, T. K. Adhya, S. P. Hamburg et. al. Discovery of high rice nitrous oxide emissions calls for integrated management of water, nitrogen and organic matter for reducing net greenhouse gas emissions due to rice cultivation. International Conference on FOOD, WATER, ENERGY nexus in arena of Climate change. Anand Agricultural University, India Oct 14-16, 2016

12. D. Nair, **Kritee K**., R. Ahuja, T. Adhya, T. Loecke, S. Reddy and O. Dava Drought adaptation and exponential decrease in nitrous oxide emissions from sustainable groundnut cultivation in semi-arid peninsular India. FOOD, WATER, ENERGY nexus in arena of Climate change. Anand Agricultural University, India Oct 14-16, 2016

13. **K. Kritee** Climate resilient farming in India. Agriculture in Bihar: Current Status, Pressing Issues and Potential Solutions. Convergence, Patna, Bihar Jan 2016

14. **K. Kritee**, L. C. Motta, M. Tsui, T. Barkay, J. D. Blum, and J. R. Reinfelder Mass independent stable isotope fractionation of mercury during intra- and extracellular algal transformations of inorganic and organic mercury *The 11th International Conference on Mercury as a Global Pollutant*. Edinburgh Scotland, Jul 28 - Aug. 2, 2013

15. **Kritee, K.**, J. D. Blum, M. Johnson, B. A. Bergquist, and T. Barkay. The measurement of microbial mercury stable isotope fractionation and its potential utility for distinguishing between Hg sources. *The 8th International Conference on Mercury as a Global Pollutant*. Madison, WI, Aug. 11–16, 2006. (**Outstanding Presentation award**)

16. **Kritee K**., J. D. Blum, and T. Barkay, Microbial Mercury isotopic fractionation during the reduction of Hg(II) to Hg(0). *North Eastern Microbiologists: Physiology, Ecology and Taxonomy Annual Meeting,* Blue Mountain Lake, NY. June 23-26, 2006

Invited science and policy lectures

1. Sherpa S., **Kritee K.** and McDonald A., Assessing soil health and establishing linkages to climate smart agriculture in Bihar, Department of Agriculture, Government of Bihar **2019** Patna, Bihar

2. **Kritee K.,** Rice nitrous oxide. National Rice Research Institute, **2019** Cuttack, Odisha, India

3. Nair D. and **Kritee K**., Creating pathways to monetize greenhouse gas emission reduction from climate smart farming in India, Aarhus University, Department of Agroecology, **2018** Denmark

4. **Kritee K**., Agricultural GHG (Methane and nitrous) emissions from rice farming in India. Global Research Alliance (Paddy Rice Research Group) meeting, ***2015*** Nanjing, China

5. **Kritee K.**, Climate Smart Agriculture in Asia: Measurements, Implementation Strategy and Challenges, *Nov **2014***, The Center for Science and Technology Policy Research (CSTPR), University of Colorado, Boulder, CO

6. **Kritee K**. Low carbon farming in South India – invited by South Asian Students in Sciences, *April **2013***, *Rutgers University*

7. **Kritee K**. Tracing the history of mercury pollution – the stable isotope approach – invited by Dept. of Environmental Science, *Oct **2011**, Rutgers University*

8. **Kritee K.** Metal and Microbes, for Environmental and Pollution Microbiology, May **2011,** Rutgers University

9. **Kritee K** and Daniel Sigman Bridging microbiology and geochemistry – Reduced N isotope effect during denitrification: Implications for global marine fixed N budget. – invited by *Dept. of Biochem. & Microbiol*, *Feb 11th **2011**, Rutgers University*

10. **Kritee K.,** Mass independent fractionation of mercury and (micro)biology: Where can they meet? Goldschmidt Conference **2010** Knoxville, TN

11. **Kritee K**. Mercury, Microbes and Mass Independent Fractionation, **2010** Institute of Marine and Coastal Sciences, *Rutgers University*

12. **Kritee K**., J. D. Blum, and T. Barkay, Absence of magnetic isotope fractionation for Hg during dark biological processes: experimental evidence and theoretical considerations. *American Geophysical Union Fall Meeting* Dec. 15th -19th, **2008** San Francisco, California

13. **Kritee K**., Remarks as Governor's Executive Fellow: Class of 2008 Closing program, Eagleton Institute of politics, May 19th, **2008** *Rutgers University*

14. **Kritee K**., Microbial Stable Isotope Fractionation of mercury by mercury resistant microbes. *GEOTOP Université du Québec à Montréal* May 8th, **2007** Canada

15. **Kritee K**. Heavy metal and radionuclide remediation, **2006,** *Rutgers University*

Invited Ecodharma talks and interviews (Selected)

1. Kritee K., Confronting Emotions in the Climate Sciences, Guest lecture. Stanford University 2023

2. How Buddhism can inform climate activism: a conversation with Kritee Kanko, Yale Climate Connections, 2023 (link)

3. The mutuality of contemplative practice and environmental action: A two-part discussion with Kritee Kanko and Kaira Jewel Lingo, 2023. The Inner Nature podcast (link)

4. A Future You Can Love book launch panel 2023 Mind and Life (link)

5. Invited Summer Research Institute (Contemplative retreat) talk 2023 Mind and Life (link)

6. What Could Possibly Go Right? Interview of Kritee Kanko by Vicki Robin. 2022 Post Carbon Institute/Resilience (Video and Podcast link)

7. A Zen priest–scientist takes on climate anxiety (and human trauma) 2022 Harvard Public Health Magazine (link)

8. Sacred action: Who are we called to be in the face of our personal, societal & climate traumas? Talk for O Lugar (Brazil) 2022 PPT in Portugese

9. How To Cope with All the Climate Feels (includes Kritee's interview) 2022 A Matter of degrees podcast (Podcast link, Transcript)

10. Climate grief and making sense out of Wynn Bruce's Supreme Court climate action. 2022 Colorado Sun Opinion (link)

11. Got Climate Anxiety? These People Are Doing Something About It (includes Kritee's interview) 2021 NY Times

12. Mental-health professionals are trying to figure out how to talk about the climate 2021. The Cut (New York Mag)

13. Climate Anxiety and How It Can Lead to Hopefulness (includes Kritee's Interview) 2021 KQED California public radio

14. Mental health needs to evolve for climate change, experts say. 2021 Washington Post (link)

15. Kritee K., Dharma and Justice Dialogues: Just Relationship with the Earth, Union Theological Seminary 2021 (Youtube video)

16. Eco-Anxiety Over Climate Change Is A Growing Problem, But Help Is Out There (Kritee's interview) 2021 Cincinnati Pubic Radio

17. Drowned in the deep spring – Dharma talk 2020 San Francisco Zen Center (video)

18. Find the wisdom in paradox 2020 Lion's Roar

19. Practices for transforming COVID-19 anxiety into a sense of safety and grief-love 2020 Article, Youtube dialog

20. Climate crisis myths: Science, racism, ethics & action 2020 Zen Buddhists teachers circle (YouTube video, PDF)

21. Invited article: Why Bodhisattvas Need to Disrupt the Status Quo 2020 Lion's Roar and Buddhadharma

22. A podcast with Kritee: Interbeing, Zen Buddhism, & the Next Right Thing 2020 No Place Like Home

23. Kritee K., Hope in the midst of suffering and trauma: Buddhist perspective, Lecture for Undergraduate course "What is suffering?", School of International Service, American University *2019* Washington DC

24. Kritee K., Zen Buddhist perspective on intersectionality between social and climate justice (Through Teleconference), Interfaith Reflections on Just Transitions: Linking Climate and Economic Justice, Jan-Feb *2019*, Dhaka, Bangladesh

25. Kritee K., Spirituality and Science: Environmental Ethics, University of Southern California *2018*

26. Kritee K., Plenary Roundtable: REGENERATIVE AGRICULTURE at Regenerative Future Summit, May *2017*, Boulder, CO

27. Interview: On being the only Indian Woman Priest in the Zen Tradition, Secular Buddhist Association (Podcast) (2017)

28. Kritee, K., Whiteness and Privilege in Ecodharma: How can we confront them compassionately? Rocky Mountain Ecodharma Retreat Center blog (2017)

29. Climate Despair vs. Action: A False Choice? Ecodharma Retreat Center blog (2017)

30. Kritee K., Satyagraha, Eco-Dharma & other topics Naropa University Peace Studies Program *2016-2019*

31. Kritee K. Climate Calamity: Psycho-spiritual implications, Interface Boulder *2016* Boulder

32. Kritee K., Understanding Climate drivers: International Western Dharma Teachers Gathering Omega Institute, *2015* NY

33. This Buddhist Life: Q&A with Kritee: Tricycle (2015)

34. Climate Takuhatsu (spiritual begging): Zen peacemakers blog (2015)

35. Can our spiritual paths help us to choose heroic and just transitions over global climate chaos? Tikkun Daily (2015)

36. Embody Fierce Compassion: Buddhists at the People's Climate March: Buddhist Peace Fellowship blog (2014)

37. A Primer: Science and Policy Response to Climate Change, One Earth Sangha Mindfulness and Climate Action series (2014)

38. EcoScience 101: EcoDharma conference 2014 Wonderwell Mountain Refuge, NH (2014)

Scientific Conferences

1. The 17th Expert Meeting on Data for the Intergovernmental Panel on Climate Change (IPCC) Emission Factor Database, Osaka, Japan Nov **2019** (Invited talk)
2. Sustainable Rice Conference, Bangkok, Thailand Oct 2, **2019**
3. Fifth International Rice Congress, Oct 15-17, Singapore, **2018** (Multiple talks)
4. Food and Agriculture Organization's Rice Landscapes & Climate Change: Options for mitigation in rice-based agroecosystems and Scaling-up of climate-smart rice cultivation technologies in Asia. Oct 10-12, Bangkok, Thailand **2018** (Talk)
5. International Conference on Agricultural Greenhouse Gas Emissions and Food Security – Connecting research to policy and practice", Sept 10-13, Berlin, Germany **2018** (Talk)
6. American Geophysical Union meeting, Dec. 14 -18, San Francisco, CA. **2015** (Talk)
7. American Geophysical Union meeting, Dec. 15 -19, San Francisco, CA. **2014** (Poster)
8. Fourth International Rice Congress, Oct 27 – Nov 1, Bangkok, Thailand, **2014**
9. American Geophysical Union meeting, Dec. 9 -13, San Francisco, CA. **2013** (Poster)

10. The 11th International Conference on Mercury as a Global Pollutant, Scotland **2013**
11. American Geophysical Union meeting, Dec. 5 -9, San Francisco, CA. **2011**
12. The 10th International Conference on Mercury as a Global Pollutant, Canada Jul 24-29 **2011**
13. Goldschmidt 2010, June 13 – 18, Knoxville, TN, **2010** (Invited Talk)
14. Ocean Sciences, Feb 22-26 Feb, Portland, OR **2010** (Talk)
15. American Geophysical Union meeting, Dec. 14 -18, San Francisco, CA. **2009** (Poster)
16. American Geophysical Union meeting, Dec. 15 -19, San Francisco, CA. **2008** (Invited Talk)
17. The 16th Goldschmidt Conference, Vancouver, Canada. July 13 – 18, **2008** (Talk)
18. American Society of Microbiology's 107th General Meeting, Toronto, Canada. **2007** (Poster)
19. Joint Molecular Biosciences Symposium, Rutgers University Feb 23, **2007** (Talk)
20. The 8th International Conference on Mercury as a Global Pollutant, Madison **2006** (Poster)
21. North Eastern Microbiologsists: Physiology, Ecology and Taxonomy Annual Meeting, Blue Mountain Lake, NY. June **2006** (Talk)
22. The 15th International Goldschmidt Conference, Moscow, Idaho. May 20 – 25, **2005** (Poster)
23. The 7th International Conference on Mercury as a Global Pollutant, Ljubljana, Slovenia, June 27 – July 2, **2004**. (Talk)

Policy workshops/conferences

1. The Soil intelligence system International working group meeting hosted by Cornell University, Bihar Agricultural University (Sabour), International Maize and Wheat Improvement Center (CIMMYT), The Cereal Systems Initiative for South Asia (CSISA), Government of Bihar and World Agroforestry (ICRAF). Patna, India, Jan **2020**
2. Climate Friendly Agro-biodiversity in India's Vulnerable Ecosystem Buffer Zones, Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore, India **2019**
3. Global Research Alliance (Paddy Rice Research Group) meeting, Bangkok, Thailand **2018**
4. Center for Carbon Removal meeting on western lands strategy and terrestrial carbon sequestration, Denver, Colorado **2018**
5. Convergence: Joining hands for farmers, Conference co-organized with Farms and Farmers Patna, Bihar **2016**
6. Climate smart agriculture – Conference organized by Colorado Water Institute, Fort Collins, Colorado **2016**
7. Accelerating policy-relevant environmental research, Joint Environmental Defense Fund – Cornell Atkinson Center for a Sustainable Future Retreat, Cornell University, Ithaca, NY **2015**
8. 12th International Conference of East and Southeast Asia Federation of Soil Science Societies(ESAFS), China **2015** (Talk)
9. Global Research Alliance (Paddy Rice Research Group) meeting, Nanjing, China **2015** (Invited Talk)
10. Reducing the costs of GHG Estimates in Agriculture to Inform Low Emissions Development – FAO and CCAFS organized workshop, Nov 10-12, Rome, Italy **2014**
11. 11th EPRI Greenhouse Gas Offsets Workshop on Creating Nitrous Oxide (N_2O) Emission Reductions in U.S. Agriculture (aka "Nutrient Management"), Washington, DC, Nov 4, **2011**
12. Microbes & Their Role in Conservation: The Center for Biodiversity & Conservation's 12th Annual Symposium, American Museum of Natural History, NY April 26-27, **2007**
13. Reaching our targets: Innovative Global Warming Solutions for New Jersey, NJ **2007**
14. Meadowlands Commission Scientific Workshop on Restoration and Contaminants, NJ **2006**
15. Second Passaic River Symposium: Progress and Challenges, Montclair University. **2006**
16. Environmental Protection Agency Mercury Fate & Transport Workshop, Washington DC. **2003**

Supervising/teaching experience

As Lead researcher, Climate smart farming program, Environmental Defense Fund
(Jan 2012 – present)

- Dr. Sonam Sherpa, Atkinson-EDF Post-doctoral Fellow, Environmental Defense Fund
- Dr. Sarat Kannepalli, Consulting Scientist, Environmental Defense Fund (*Currently Advisor at Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)*)

- Dr. Drishya Nair, Consulting Low carbon farming specialist, Environmental Defense Fund (*Currently Agro- Environmental Consultant at Danish Teknologisk Institute, Denmark*)

- Rakesh Tiwari, Consulting Low carbon farming specialist, Environmental Defense Fund (*Currently Postdoctoral Researcher at University of Leeds, UK)*

- Amresh Choudhary, Field Research Advisor, Climate Smart Agriculture, India

- Uday Vaddi, Research Advisor, Climate Smart Agriculture, India

- Other research team members supervised
    - Tashina Esteves (Consulting Low carbon farming specialist, Fair Climate Network)
    - Shalini Balireddygari & Obulapathi Dava (Accion Fraterna and Social Education and Development Society, Andhra Pradesh)
    - Murugan Madasamy & Vadivel (Palmyrah Workers Development Society, Tamil Nadu)
    - Karthik Ram & Abhilash S.R. (Bharat Environment Seva Team, Tamil Nadu)
    - Somashekar Balakrishna & Leelavathi Venkataiah (Social Animation Center for Rural Edu. & Dev., Karnataka)
    - Ramakrishna Dokka (Timbaktu Collective, Andhra Pradesh)

As doctoral and post-doctoral researcher at *Rutgers University* *(2005- 2011)*

Laura Motta	Sophomore, Rutgers	*2010-2011*
Brittany Karas	Junior, Rutgers	*Summer 11*
Matt Meredith	Senior, Colby College, Maine	*Summer 05*
Richard Pescatore	Undergraduate Research Centre Rutgers University	*Spring 05*

As post-doctoral researcher at Princeton University *(2008-2010)*

Jason Cutrera	*Fall 08-Fall 09*

As Invited Guest Lecturer, Rutgers *(2004-2011)*

General Microbiology	*3 semesters*
Microbial Ecology	*4 semesters*

Synergistic Activities

Panel Reviewer

- Lancet Countdown on Health and Climate Change U.S. Policy Brief based on the annual Lancet report on Tracking the connections between public health and climate change (2020) (Website: 2020 report upcoming)
- Member of grant proposal review panel, National Institute of Food and Agriculture, US Department of Agriculture (NIFA USDA) (2014)
- Proposal reveiwer, National Science Foundation (NSF) (2012)

Selected review requests from peer-reviewed journals (Publons profile)

Environmental Science and Technology (2008 – present)
Environmental Research Letters (mid 2020 – present)
International J. of Env. Research & Public Health (2019 – present)
Agriculture, Ecosystems & Environment (2019)
American Chemical Society Omega (2019)
Global Biogeochemical Cycles (2019)
Soil Biology and Biochemistry (2019)
Field crops research (2019)

Chemosphere (2019)
Soil Systems (2019 – 2020)
Agronomy (2019 – present)
ACS Earth and Space Chemistry (2018)
Soil Science and Plant Nutrition (2017)
Geochimica et Cosmochimica Acta (2013-2017)
Environmental Science & Technology Letters (2014-2015)
Nutrient Cycling in Agro-Ecosystems (2015)
Marine Chemistry (2015)
Current Medicinal Chemistry (2013)
Chemical Geology (2012)
Environmental Chemistry (2011)
The Science of Total Environment (2010)
Journal of Hazardous Materials (2009)
Chemical Engineering Communications (2008)
Analytical Chemistry (2008)

Mentor/Technical Advisor
Academy for the Advancement of Science and Technology Science Day (2011)
Payment for Ecosystem Services, ProLand Project Tetratech (2019)
Rice mitigation potential, Drawdown (2019)

Blogs and other contributions

- Jeremy Proville, Kritee K., Richie Ahuja (2018) Climate smart rice farming: Integrated co-management of fertilizers with mild-intermittent flooding. Global Water Forum
- **Kritee K.,** Jeremy Proville, Terry Loecke, Richie Ahuja (2018) Global anthropogenic climate impacts must include nitrous oxide emissions from rice fields. Climate 411
- Richie Ahuja, Tapan Adhya & **Kritee K.** (2018) Climate smart rice farming: Integrated co-management of fertilizers with mild-intermittent flooding Climate 411
- **Kritee K.** (2016) New studies point to a pathway to find India's most effective climate-smart farming practices EDF Talks Global Climate
- **Kritee K.**, Richie Ahuja, Tal Lee Anderman (2014) 'Feeding 9 billion' requires facing up to climate change EDF Talks Global Climate
- **Kritee K.,** (2013) Global climate change can make fish consumption more dangerous Climate 411
- **Kritee K.** and Mandy Warner (2013) Protecting the Planet: A Report from the International Conference on Mercury in Edinburgh Climate 411
- **Kritee K.** and Richie Ahuja (2013) How can we grow more rice - with less land, water and pollution? EDF Voices
- **Kritee K.** (2011) America's Leading Mercury Scientists Call for Strong Air Pollution Standards Climate 411
- **Kritee K.** with Dominique Browning and others (2011) Mercury pollution resources, Moms Clean Air Force: *how mercury pollution from coal power plants makes its way to our food, the relative roles of natural and international sources, the reasons of acute toxicity of mercury compounds, socio-economic impact of EPA's Mercury and Air Toxics Standards (MATS)*

Membership and affiliations

- Graduate Student Representative: Rutgers Committee on Sustainability (2006-2008) (Link to our first report)

- Professional Member:
    1. American Geophysical Union (2008 - present)
    2. American Society of Microbiology (2005 - present)

Awards and Honors

- 22 Faith Leaders To Watch, Center for American Progress (2022)
- High Meadows Postdoctoral Fellowship, Environmental Defense Fund (2011-2013)
- Dreyfus Fellowship in Environmental Chemistry, Princeton University (2008-2010)
- Governor's Executive Fellow, Eagleton Institute of Politics, Rutgers University, NJ (2007-08)
- Frank R. Lillie and Wheeler Family Founders' Scholarship, Marine Biological Laboratory (2007)
- American Society of Microbiology's Student Award, Toronto, Canada (2007)
- Author of "a HOT paper," one of most cited papers in the field of Chemistry, American Chemical Society (2007)
- Annual Robison Scholarship Award for Excellence in Graduate Studies, Rutgers Univ. (2007)
- Outstanding student presentation award, The 8th International Conference on Mercury as a Global Pollutant. Madison, WI (2006)
- Graduate Fellow, Undergraduate Research Centre at Rutgers Univ. (2005)
- Graduate Aptitude Test in Engineering (GATE) Scholarship (99 percentile), India (2000)
- Summer Undergraduate Research Award, Indian Institute of Technology, India (1998).

Research news coverage in media

- BBC World Update – Kritee's Interview by Dan Damon on September 11, 2018
- Bloomberg Your Bowl of Rice Is Hurting the Climate Too
- Gubbi Labs: Study shows that climate impacts from rice cultivation are large but can be reduced drastically
- Independent UK: Rice farming up to twice as bad for climate change as previously thought, study reveals
- Xinhua (China): Nitrous oxide emissions from rice farms may speed up global warming: study
- Daily Mail (UK): Greenhouse emissions from RICE PADDIES around the world could have the same long-term impact as around 600 coal plants and are fueling global warming
- UPI: Greenhouse gas emissions on rice farms underestimated, study finds
- Channel News Asia (AFP): Greenhouse gases from rice paddies may be twice higher than thought
- Phys.org (AFP): Greenhouse gases from rice paddies may be 2x higher than thought
- Economic Times: India study: greenhouse gases from rice paddies may be two times higher than thought
- Financial Express (India): Rice farming twice as bad for climate as thought: Study
- Deccan Herald (India): Rice farming twice as bad for climate as thought: Study
- Hindu: Greenhouse gas emissions from Indian paddy fields very high: study