

LYNETTE L. DE SILVA (Maiden Name LUCAS)

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Areas of Interest

Ms. de Silva's principal areas of interest include water conflict management, integrated watershed management, water resource and land management practices, earth science education and outreach.

Qualifications

- 2000 M.S. Environmental Geology, Indiana University, Indianapolis, Indiana
Thesis: Is There Strong Evidence Supporting Natural Attenuation of Chlorinated Solvents at the Uniontown Landfill?
- 1982 B.S. Geology, Brooklyn College of CUNY, Brooklyn, New York

Professional Activities

- 2011 – Oregon Mediation Association (OMA) Member
- 2009 – Universities Council on Water Resources (UCOWR) Board Delegate for Oregon State University (OSU)
- 2009 – Member of the Universities Consortium on Columbia Basin Governance
- 1999 – 2008 Licensed Professional Geologist, Indiana (No. 2055; Expired).

University Committees

- 2010 – Graduate Faculty for OSU's Water Resources Policy and Management Program
- 2010 – OSU's Master of Natural Resources (MNR) Administrative Committee
- 2010 – OSU's MNR Admissions Committee

Professional Experience

- 2006 – **Associate Director**, Program in Water Conflict Management and Transformation, OSU, Corvallis, Oregon. Ms. de Silva coordinates the administration and implementation of three focus area programs: the graduate/professional certificate program; the Transboundary Freshwater Dispute Database, an information technology/outreach program; and the University Partnership for Transboundary Waters, a collaborative research program. This involves contributing to issues of topical scientific and societal importance; adding to state, national, and international visibility; consolidating programmatic cores and teaching missions; and recruiting graduate students, evaluating student applications, coordinating student admissions with the graduate faculty, and monitoring student progress.

Instructor, Ms. de Silva teaches the following courses, to university graduates and undergraduates:

- GEO 425/525 - Water Resources Management in the United States (2010; 2011; Online)
- GEO 425/525 - Water Resources Management in the United States (2009; Co-instructor on campus)
- WRP 521 – Water Governance and Conflict Management (2011; Graduate students only).
- WRP 510 - Internship in Water Resources (2009; 2010; 2011; Graduate students only).

Program Coordinator, Increasing Diversity in Earth Sciences Program (2010 – present), Ms. de Silva coordinates students and mentors in a program built around a proven model of tiered mentoring, interactive student cohort, research and education internships, and financial support geared to increase the number of students from under-represented groups who pursue careers in Earth Science research and education. This effort includes juniors at OSU and five Oregon community colleges.

2002 – 2006 **Research Engineer**, Energy and Environmental Research Center, University of North Dakota, Grand Forks, North Dakota. Ms. de Silva managed the terrestrial component of the Plains CO₂ Reduction (PCOR) Partnership. This involved the management of projects that investigated and quantified carbon in soils and various ecosystems in the northern Great Plains. She also focused on finding potential funding opportunities for sequestering carbon in the region that promoted the use of selective land and water management practices. In this capacity, de Silva also worked on flood mitigation in the Red River Basin, the Waffle Project. She conducted public outreach to congressional staff members, county commissioners, water boards, and the general public on the progress of the study to further discussions on water-related issues and transboundary water concerns. She was instrumental in the development of a portal to data sets and resources that focused on Red River Basin flood protection.

1994 – 2001 **Geologist**, Indiana Department of Environmental Management, Indianapolis, Indiana. Ms. de Silva served as a project manager in the Resource Conservation Recovery Act Corrective Action (RCRA) program, where she oversaw remediation of contaminated operating industrial facilities. This involved inspections and investigations to ensure compliance with regulator requirements; preparing comprehensive environmental assessments of the hazardous waste facilities; identifying sources of soil and groundwater contamination; reviewing plans and overseeing remediation and removal of hazardous waste; and making preliminary determinations of exposure pathways to evaluate most likely scenarios for harm to human health and the environment.

1989 – 1990 **Geophysical Librarian**, Chevron Company, Houston, Texas. Ms. de Silva's responsibilities included acting as support staff to geophysicists, documenting and classifying seismic data, and initiating and implementing a procedure manual for the geophysical library. Additional tasks included indexing offshore data and entering it in to the database.

1984 – 1989 **Research Assistant**, Lunar and Planetary Institute and University of Houston, Houston, Texas. Ms. de Silva’s responsibilities included interpreting LANDSAT imagery, now published; drafting a geologic map of Jamaica; and researching, compiling, and digitizing a map of world plate boundaries. Other tasks included proofreading and editing geological manuscripts, now published in scientific journals, and preparing grant proposals and submitting quarterly reports to federal agencies.

Successful Proposals, Contracts and Memorandums of Understanding (MOU)

- “Enhancing the Institutional Capacity of Managing Water in the West.” U.S. Bureau of Reclamation. \$120,000. 2010-2011.
- “African Ministers Council on Water (AMCOW) Capacity Development Program.” Environmental Law Institute. \$20,000. 2010-2012.
- Category II – “Initiation of an Instructional Program Leading to A Graduate Minor in Water Conflict Management and Transformation.” Spring 2010.
- “Furthering IWMI-OSU cooperation on transboundary water research.” The International Water Management Institute (IWMI). \$15,000. 10/15/2009 through 03/15/2010.
- “The Geography, Geology and Hydropolitics of Israel and Palestine.” OSU L. L. Stewart Faculty Development Award. \$2,195. Winter Term, 2009.
- “Water Anchor: Adaptation to Climate Change in the Water Sector,” submitted to the World Bank for \$70,000 in October 2008.
- Category I – “Proposal for the Initiation of a New Instructional Program Leading to A Graduate Certificate in Water Conflict Management and Transformation.” Fall 2008.
- MOU between the Department of Geosciences and OSU Extended Campus. OSU Extended Campus. \$75,000. Effective September 2008.
- “Upgrading the Transboundary Freshwater Dispute Database.” The International Water Management Institute, \$27,000. 09/01/2007 - 08/30/2008.
- MOU between the Institute for Water and Water Resources, US Army Corps of Engineer, and the State of Oregon acting by and through OSU for the Institute for Water and Watersheds. The International Center for Integrated Water Resources Management (ICIWaRM). September 20, 2007.

Publications

- De Stefano, L.; Edwards, P.; **de Silva, L**; Wolf, A. 2010. Tracking cooperation and conflict in international river basins. Historic and recent trends, *Water Policy*, Vol. 12, No. 6. pp 871-884.
- **de Silva, L.** edited and managed the production of book entitled, “Hydropolitical Vulnerability and Resilience Along International Waters: Asia.” Wolf, A., ed. Nairobi: UN Environment Programme, 2009.
- **de Silva, L.** edited and managed the production of book entitled, “Hydropolitical Vulnerability and Resilience Along International Waters: Europe.” Wolf, A., ed. Nairobi: UN Environment Programme, 2009.
- **de Silva, L.** edited and managed the production of book entitled, “Hydropolitical Vulnerability and Resilience Along International Waters: North America.” Wolf, A., ed. Nairobi: UN Environment Programme, 2009.
- **de Silva, L.**; Van der Zaag, P. 2009. Educational Strategies: An Integrative Approach to Water Relations. Unpublished document and Presentation at the 2009 World Water Week, Stockholm, Sweden.

- De Stefano L.; **de Silva L.**; Edwards P.; Wolf, A. 2009. Updating the International Water Events Database. From Potential Conflict to Cooperation Potential (PC-CP) series. UNESCO. World Water Assessment Programme. Side publications series. Dialogue Paper. Published by the United Nations Educational, Scientific and Cultural Organization.
- Peck, W.D.; Harju, J.A.; O’Leary, E.A.; Smith, S.A.; Sorensen, J.A.; Steadman, E.N.; Nelson, C.R.; **de Silva, L.L.** Plains CO2 Reduction (PCOR) Partnership Atlas; PCOR Partnership Atlas for U.S. Department of Energy and multiclients; Energy & Environmental Research Center: Grand Forks, ND, 2005.
- **de Silva, L.L.**; Cihacek, L.J.; Leistritz, F.L.; Faller, T.C.; Bangsund, D.A.; Sorensen, J.A.; Steadman, E.N.; Harju, J.A. The Contribution of Soils to Carbon Sequestration; Plains CO2 Reduction (PCOR) September 20, 2007, Forks, ND, August 2005.
- Steadman, E.N.; Sorensen, J.A.; Reilkoff, T.E.; O’Leary, E.M.; **de Silva, L.L.**; Jensen, M.D.; Harju, J.A. The Plains CO₂ Reduction (PCOR) Partnership: Identifying and Developing Greenhouse Gas Sequestration Opportunities in the North American Great Plains. In Proceedings of Western Fuels Symposium: 19th International Conference on Lignite, Brown, and Subbituminous Coals; Billings, MT, Oct 12–14, 2004.
- Wang, X.; Groenewold, G.H.; Steadman, E.N.; Bolles, B.A.; Peck, W.D.; **de Silva, L.L.**; Dokken, H.M. A Coupled Hydrologic-Hydraulic Model for Flood Reduction Analysis in the Red River of the North Basin. Presented at the 1st International Water Conference, Moorhead, MN, April 23–24, 2003.
- Burke, K., and **Lucas, L.**, 1989, Thrusting on the Tibetan plateau within the last five MA., in Sengor, A.M.C., Tectonic evolution of the Tethyan region: Kluwer, p. 507–512.
- **Lucas, L.** et al., 1989, A map of the faults at Plate Boundaries: EOS, v. 70, no. 15, p. 469.

Presentations and Posters

- **de Silva, L.L.** Water Conflict Management and Transformation & Basins at Risk. An oral presentation and workshop on Water: The Key to Regional Stability, held at University of South Florida, Tampa, FL, September 27-29, 2010
- **de Silva, L.L.** Program in Water Conflict Management & Transformation Program in Water Conflict Management & Transformation. An oral presentation at the Got Water? Managing It for the Future: A Forum Our Regional Water Supply, held at the First Unitarian Church, Portland OR, June 4 – 5, 2010
- **de Silva, L.L.** Boundless Basins: What are the successes and failures of hydro-solidarity? An oral presentation at the 5th World Water Forum, Istanbul, Turkey, March 16 – 22, 2009.
- **de Silva, L.L.** UPTW Programme in Transboundary Groundwater: Umatilla Basin, USA. An oral presentation at the 5th World Water Forum, Istanbul, Turkey, March 16 – 22, 2009.
- **de Silva, L.L.** Transboundary aquifers (Part 3). Moderator of this special session hosted by the Universities Partnership for Transboundary Waters at the 13th International Water Resources Association World Water Congress, Montpellier, France, September 1–4, 2008.
- **de Silva, L.L.** Program in Water Conflict Management & Transformation. An oral presentation. Also acted as moderator at the 2008 Universities Council on Water Resources/The National Institutes for Water Resources Annual Conference. International Water Resources: Challenges for the 21st Century and Water Resources Education, Durham, NC, July 22–24, 2008.
- **de Silva, L.L.** The Certificate in Water Conflict Management and Transformation. An oral presentation at the 2008 UCWR/NIWR Annual Conference, International Water Resources: Challenges for the 21st Century and Water Resources Education, Durham, NC, July 22–24, 2008.

- MacQuarrie, P.; **de Silva, L.L.**; Santelmann, M.V.; Wolf, A.T.; Eidem, N. An Integrated Program to Inform Water Policy and Conflict Management. Poster presentation at the 7th Biennial Conference on University Education in Natural Resources, Oregon State University, Corvallis, Oregon, March 13-15, 2008.
- **de Silva, L.L.** The Transboundary Freshwater Dispute Database. An abstract in the International Network of Basin Organizations Newsletter, in Volume 16, December 2007–January 2008.
- MacQuarrie, P.; **de Silva, L.L.**; Santelmann, M.V.; Wolf, A.T.; Eidem, N. An Integrated Program to Inform Water Policy and Conflict Management. Poster presentation at Water in the Pacific Northwest: Moving Science into Policy and Action, Annual Conference, Stevenson, Washington, November 7-9, 2007.
- **de Silva, L.L.** Kurz, M., Bolles B.; Williams, K.; Maki, C.; Johnson J. The Impact of Short-Term Water Storage on Agriculture - A Field Demonstration. Oral presentation and abstract at the American Water Resources Association, Annual Conference, Seattle, Washington, November 7–10, 2005.
- **de Silva, L.L.**; Peck, W.D.; Bolles, B.A.; Wang, X.; Dokken, H.M.; Groenewold, G.H.; Steadman, E.N. Utilization of GIS in Flood Mitigation. A Case Study in the Red River Basin of the North America. Poster at the International Conference of GIS and Remote Sensing in Hydrology, Water Resources, Environment; Yichang, China, Sept 16–19, 2003.
- Bolles, B.A.; Wang, X.; **de Silva, L.L.**; Dokken, H.M.; Groenewold, G.H.; Peck, W.D.; Steadman, E.N. An Innovative, Basinwide Approach to Flood Mitigation: The Waffle Project. Presented at the International Conference of GIS and Remote Sensing in Hydrology, Water Resources, Environment; Yichang, China, Sept 16–19, 2003.
- Wang, X.; Groenewold, G.H.; Steadman, E.N.; Bolles, B.A.; Peck, W.D.; **de Silva, L.L.**; Dokken, H.M. WaffleSM: An Innovative Integrated Watershed Management Practice. Presented at the Eighth National Watershed Conference, Council Bluffs, IA, June 6–11, 2003.

Synergistic Activities

1. Volunteers as a mediation practitioner within Benton County (Oregon) Small Claims Mediation Program (2011).
2. Teaches graduate courses and directs non-thesis students. Ms. de Silva is on the Graduate Faculty for OSU’s Water Resources Policy and Management Program (2010).
3. Establishes procedural processes for coordination between OSU’s Master of Natural Resources degree program (MNR) and graduate certificate programs. Ms. de Silva is a member of the MNR Administrative Committee (2010).
4. Follows admissions criteria established in the MNR Category I proposal and review of applications. Ms. de Silva is a member of the MNR Admissions Committee (2010).
5. Coordinated the 2nd Annual Symposium on Transboundary River Governance in The Face of Uncertainty: The Columbia River Treaty, 2014, held at Oregon State University, November 7–10, 2010.
6. Facilitated roundtable discussions on Water Conflict Management in the Climate Change and Governance Session at 2010 World Water Week, Stockholm, Sweden.
7. Volunteered as instructor for on campus WRP 510: Internship (2010).
8. Assisted in coordinating the Natural Resource and Environment Symposium 2009, entitled, “Transboundary River Governance in the Face of Uncertainty: The Columbia River Treaty, 2014,” held in Coeur d’Alene, Idaho, April 2–4, 2009.
9. Board Delegate, Universities Council on Water Resources (UCOWR) for Oregon State University, Oregon, 2009–present.

10. Coordinated and acted as moderator for a special session co-hosted by the Universities Partnership for Transboundary Waters (UPTW), addressing Transboundary aquifers (Part 3), at the 13th International Water Resources Association World Water Congress, Montpellier, France, September 1–4, 2008.

Graduate Advisor

Dr. Gabriel M. Filippelli, Chair, Indiana University, Department of Earth Sciences, Indianapolis, IN 46202.