

Curriculum Vitae of Prof. Rattan Lal

Rattan Lal, Distinguished University Professor of Soil Science
 Director, Carbon Management and Sequestration Center
 The Ohio State University: College of Food, Agricultural and Environmental Science
 422B Kottman Hall, 2021 Coffey Road, Columbus, OH 43210

E-mail: lal.1@osu.edu
Phone: 614/292-9069
Fax: 614/292-7432

Biographical Information

Place of Birth: Karyal, Punjab, India (what is now Pakistan)

Education: 1968 Ph.D. (Soils), The Ohio State University, Columbus, Ohio, USA
 1965 M.Sc. (Soils), Indian Agricultural Research Institute, New Delhi, India
 1963 B.Sc. (Agriculture) Punjab Agricultural University, Ludhiana, Punjab, India
 1959 Matriculation, Government High School, Rajaund, District Kaithal, Haryana, India

Positions Held: 2011 - Distinguished University Professor of Soil Science
 2001 - Director, Carbon Mgt. & Sequestration Program, OARDC/OSU, Columbus, OH
 2014 - Chair, Advisory Committee, UNU-FLORES, Dresden, Germany
 2013 - 2016 Member, Steering Committee, Global Soil Week (IASS), Potsdam, Germany
 2013 - 2016 Member, Advisory Board, Food Agriculture and Climate Change (FACCE), E.C. (Brussels)
 2011 - 2012 Sr. Science Advisor, Inst. Advanced Sustainability Studies (IASS), Potsdam, Germany
 2011 - Member, Scientific Advisory Board, SERDP, DOD, Washington, D.C.
 2011 - 2014 Member, Federal Advisory Committee, Climate Assessment Report, NOAA, Washington, D.C.
 2009 - Adjunct Professor, University of Iceland, Reykjavik, Iceland
 2000 - Director, South Asia Program, IPA, FAES, The Ohio State University, Columbus, OH
 1987 - Prof. Soil Science, The Ohio State University, Columbus, OH
 1987 - 1970 Soil Physicist, IITA, Ibadan, Nigeria
 1969 - 1968 Senior Research Fellow, University of Sydney, Australia
 1968 - 1966 Research Assistant, OARDC, Wooster, OH, U.S.A.
 1963 - 1966 Research Assistant, The Rockefeller Foundation, New Delhi, India

PROFESSIONAL AFFILIATIONS

- American Geophysical Union (1999-)
- American Association for Advancement of Science (1992-)
- Soil and Water Conservation Society (1987-)
- World Association of Soil and Water Conservation (1982-)
- Society for Promotion of Wasteland Development in India (Founding member 1980-)
- International Soil and Tillage Research Organization (1976-)
- International Union of Soil Science (1971-)
- Soil Science Society of America (1966-)
- American Society of Agronomy (1966 -)

HONORS AND AWARDS

University Student Awards

- Member, Sigma Xi, Ohio Chapter, Columbus, Ohio, USA, 1968
- Biswas-Desai Gold Medal, and IARI Gold Medal for the highest GPA, IARI, New Delhi, India, 1965
- Gold Medal, for highest GPA, Punjab Agricultural University, Ludhiana, India, 1963
- Academic Roll of Honor, Punjab Agricultural University, Ludhiana, India, 1963
- Highest GPA in Government High School Rajaund, District Jind, Haryana, India, 1959

Professional Awards

- EPI Scholar, 2258 Highly Cited Researchers (h>100), 2018
- Sustained Achievement Award, Renewable Natural Resources Foundation, 2017
- Atlas Award, The Best Paper Among 1800 Journals, Elsevier Science Publisher, 2016
- USDA-NIFA, Partnership Award: Multistate Effort, 2016
- INRA, Morocco Government Award for Strategic Development of Earth System Science Worldwide, Marrakesh, Morocco, 2016
- Thomson Reuters: 2002-2013 World's Most Influential Scientific Minds, Highly-Cited research (top 1%) 2014, 2015, 2016, 2017
- The Editor's Choice Award (2015); Honorable Mention (2015) Soil and Water Conservation Society, Ankeny, IA, US
- Global Drylands Champion, UN Convention to Combat Desertification, Bonn, Germany, 2013
- Honorary Member, Indian Society of Soil Science, 2012
- Professional Achievement Award, Alumni Association, The Ohio State University, 2012
- Distinguished Achievement in Agriculture Award, Gamma Sigma Delta International, 2012
- Editors Choice Award, JSWC for the article authored by Jorge Delgado et al., June 2012
- Author Award, S-6 Division, Soil Science Society of America, October 2012
- Member, De Tao Masters Academy, Beijing/Shanghai, China June 2012
- COMLAND Award, Commission on Land Degradation & Desertification, Helmholtz Center for Env. Research, Leipzig, Germany, 2009
- **Swaminathan Award, Government of India, New Delhi, India, 12 August 2009**
- Cordban Award, University of Cordoba, Spain, 2008
- **2007 Nobel Peace Prize Certificate from IPCC, 2007**
- Presidential Lecture, 10 May, Current Trends, Chaired by President Grimsson of Iceland, Reykjavick, Iceland, 2006
- **Liebig Award, International Union of Soil Sciences, Philadelphia, USA 2006**
- Zayed Intl. Prize for the Environment, Millennium Ecosystem Assessment, Author Award, 2005
- **Norman Borlaug Award, IARI, New Delhi, India, 2005**
- Carl Sprengel Agronomic Research Award, American Society of Agronomy, 2005
- Certificate of Appreciation, Los Alamos National Lab, Los Alamos, NM, 2005
- Environment Quality Research Award, American Society of Agronomy, 2004
- William E. Larson and Ray R. Allmaras Inaugural Lecture, Univ. of Minnesota, 2003
- Soil Science Research Award (2002), Soil Science Applied Research Award(1992), International Soil Science Award (1988), Soil Science Society of America
- Scroll of Honor, Haryana Agricultural University, Hissar, India, 2001
- **University Distinguished Lecture (2000), The Ohio State University**
- Outstanding Publication Award, Soil and Water Conservation Society-Ohio Chapter, 2000
- Sigma Xi International Award, Ohio Chapter (1998)
- Distinguished Alumni Award, Punjab Agricultural University, Ludhiana, India, 1999
- **Hugh Hammond Bennett Award, Soil and Water Conservation Society, 1998**
- The President's Citation, Soil and Water Conservation Society, 1997
- The President's Citation, Soil and Water Conservation Society, 1996
- International Agronomy Award, American Society of Agronomy, 1995
- **Distinguished Scholar Award (1994), The Ohio State University**
- **Professional Service Award, The Ohio State University**
- Member, The Honor Society of Phi Kappa Phi, 1991
- Member, Phi Beta Delta, Honor Society for International Scholars, 1990
- Distinguished Scientist, Association of Scientists of Indian Origin, 1990

Honorary Degrees

- Doctor of Science, *Honoris Causa*, University of Lleida, Llieda, Spain, 2017
- Doctor of Science, *Honoris Causa*, Technical University of Dresden, Germany, 2015
- Doctor of Science, *Honoris Causa*, Alecu Russo Balti State University, Republic of Moldova, 2010
- Doctor of Science, *Honoris Causa*, Norwegian Univ. of Life Sciences, Åas, Norway, 2005
- Doctor of Science, *Honoris Causa*, Punjab Agricultural University, Ludhiana, India, 2001

Fellow of Professional Societies and Institutions

- Fellow, Rothamsted, 2013
- Fellow, National Academy of Agricultural Sciences, India, 1998
- Fellow, Soil and Water Conservation Society, 1997
- Fellow, American Association For The Advancement of Science, 1996
- Fellow, Third World Academy of Sciences, Trieste, Italy, 1992
- Fellow, Soil Science Society of America, 1986
- Fellow, American Society of Agronomy, 1985

Honorary Membership

- Indian Society of Soil Sciences, PAU, Ludhiana, India, 2012
- World Assoc. Soil Water Conservation, Buenos Aires, 2000

Institutional/Employment Awards

- Professional Achievement Award, Alumni Association, The Ohio State University, 2012
- The OARDC 25-Year Service Award, October 2012
- Winter College, 2012. Invited lecture “Solution Underfoot”, The Ohio State University, 16-18 February, 2012, Naples, FL
- **Distinguished University Professor of Soil Science, 2011**
- Certificate of Appreciation, College of Food, Agricultural & Environmental Sciences, OSU, 2002
- Distinguished Senior Faculty Research Award, Ohio Agricultural Research & Development Center, 2001
- Certificate of Appreciation for 15 years of distinguished service, Ohio Agricultural Research & Development Center, 2001
- Certificate of Appreciation, College of Food, Agricultural & Environmental Sciences, 2000
- Department Research Award, Ohio Agricultural Research & Development Center, 1999
- Certificate of Appreciation, USDA-NRCS, Washington, DC, 1999
- Outstanding International Award, Gamma Sigma Delta, Ohio Chapter, 1998
- Department Research Award, Ohio Agricultural Research & Development Center, 1997
- Department Research Award, Ohio Agricultural Research & Development Center, 1996
- Member, Gamma Sigma Delta, Ohio Chapter, 1995
- Research Award of Merit, Gamma Sigma Delta, Ohio Chapter, 1995
- IITA Dedicated Service Award, 1987

Biographical Listings

- Who’s Who in the World, 1998
- Distinguished Leadership, 1998
- Citation, American Men and Women of Science, 1991
- Citation, Who’s Who in Science and Engineering, 1991

Offices Held in Professional and Honorary Societies

- President, International Union of Soil Sciences, Vienna, Austria (2017-2018)
- **Member, U.S. National Committee for Soil Science, National Academy of Sciences, Washington, D.C. (1998-2002, 2008 2010, 2016-2018)**
- President Elect, International Union of Soil Sciences, Vienna, Austria (2014 -2016)
- Member, Steering Committee, IASS, Germany (2013-)
- **Member, Federal Advisory Committee, U.S. Global Change Research Program, Washington D.C. (2010-)**
- Member, Foresight Project Team, Office of Science, Prime Minister, U.K. (2009-)
- Member, Scientific Advisory Committee “Climate Recovery Group”, Sierra Club (2009-)
- Member, Strategy Advisory Board, Institute for Advanced Sustainability Studies, Germany (2009-2012)
- **President, Soil Science Society of America (2006- 2007)**
- Coordinator, Latin American Soil Carbon Network (LASCANet) (2004-)
- Leader, International Year of the Planet Earth Team on “Desertification”, International Geo Unions (2004)
- Member, NRC Steering Committee on Direct and Indirect Human Contributions to Terrestrial Greenhouse Gas Fluxes (2003)
- Advisor, Chicago Climate Exchange, Carbon Trading (2002-)
- **IPCC 2001, Planning Meeting, Revised Guidelines for Practice Guidance, Geneva, Switzerland, (March 2001)**
- **IPCC 2001, Reviewer of IPCC 2000 Report (Working Group II)**
- Member, SSSA Committee to develop position paper on C sequestration, (2000-2001)

- Member, Task Force of CAST on “Agricultural Mitigation of Greenhouse Gases” (2000-2004)
- **Millennium Ecosystem Assessment, Lead Author, Condition Working Group Assessment (2003-)**
- **IPCC, Lead author, Special Report on LULUCF, (1998-2000)**
- Vice Chair, ISTRO-2000 Organizing Committee (1997-2000)
- Member, ISCO-1999 (International Soil Conservation Organization) Task Force, SWCS, (1999)
- Vice Chair, Committee on “International Network for Soil and Water Conservation”, SWCS, (1998-2000)
- Organizing Committee of special symposia in Keystone, Co. (1996) and Toronto, Canada (1997), Calgary, Canada (1998)
- Member, Search Committee, Director General, UNU-Natural Resources Program in Africa, Accra, Ghana (1997)
- Vice Chair, Global Activities Committee, Soil and Water Conservation Society, (1997-2000)
- Member, International Affairs Committee, Soil and Water Conservation Society, (1996-1997)
- Task Force, GREAN Consortium Team Visit to India, (1996)
- Coordinator, GREAN-India Program, (1996-1997)
- Rapporteur, Commission For Agric. Met., WMO, Geneva, Switzerland, (1995-1998)
- Chair, Working Group “Techniques of Characterizing Physical Properties of Clayey Soils”, ISTRO (1995-)
- Chair, Working Group “Methods of Assessment of Soil Degradation”, ISSS, Vienna, Austria (1995-1997)
- Member, Program Committee, 50th Anniversary Meeting Soil Water Conservation Society, Ankeny, Iowa (1995)
- Member, ASA Committee on Agronomic Service Award (1994-1995)
- Member, Task Force on "Collaboration between U.S. Universities and CGIAR system" (1993-1994)
- SSSA Liaison to Consortium of Affiliates for International Program of AAAS (1993-2005)
- IPCC/OECD Member of Workgroup Inter-Governmental Panel on Climate Change, (1993-1996)
- **Scientific liaison officer for USAID to CGIAR on Natural Resources Management (1991-1997)**
- Chairman, SSSA Committee on International Soil Science Award (1991-1992)
- National Academy of Sciences, Washington, D.C. (1990-93)
- Member, NRC Panel on “Vetiveria” Washington, D.C. (1990-1992)
- Member, SSSA Committee on International Soil Science Award (1990-1991)
- Member, working Group of ASA (A-6) on "Methodologies for Sustainable Agriculture in the Tropics" (1990-1991)
- Advisor to "Committee on Agricultural Sustainability for Developing Countries," World Resources Institute, Washington, D.C. (1990-2000)
- Board Member, Org. for Trop. Studies, Durham, N.C./San Pedro de Montes de Oca, Costa Rica (1989-1994)
- **President, International Soil Tillage Research Organization (ISTRO) (1988-1991)**
- Cooperating Scientist: USAID-PL480 Cooperative Project in India (1988-90)
- **President, World Association of Soil and Water Conservation (WASWC) (1987-1991)**
- Member, NRC's Committee on "Sustainable Agriculture and Environment," NRC, Washington D.C. (1987-1990)
- Member, Working Group on World Soil Erosion, Intl. Union for Conservation of Nature and Natural Resources (1987-89)
- Board Member, International Soil Tillage Research Organization (ISTRO) (1984-1988)
- Chairman, Working Group on Soil Erosion Research Methodology of ISSS, Vienna, Austria (1983-1988)
- Vice President, World Association of Soil and Water Conservation (WASWC) (1983-1987) Vice President, International
- Commission for Continental Erosion, Int'l Assoc. Hydrol. Sciences (1982-1987)
- Network coordinator, Land Clearing and Development, Intl. Board of Soil Research and Management, Thailand (1982-86)

MEMBER EDITORIAL BOARD OF INTERNATIONAL SCIENTIFIC JOURNALS

- Editorial Board, J. Spices and Aromatic Crops, ICAR, Kerala, India (2012-)
- Editorial Board, Agricultural Research, Springer, New Delhi, India (2011-)
- Editor, Agricultural Research, Springer, Germany, (2011-)
- **Lead Author “Global Energy Assessment Report: Trade Offs - Land and Water”, UNEP, IIASA, Vienna, Austria (2010-)**
- Editor, Int. J. Food Security, Springer (2009-2013)
- Editorial Advisory Board, J. Sci. of Food & Agric., SCI Publications, London, U.K. (2006-2007)
- Editor for the Americas, Land Degradation & Development, J. Wiley & Sons, U.K. (2006 -)
- Associate Editor, J. Arid Environment, Academic Press, London; New York,(2005)
- **Editor-In-Chief, Soil & Tillage Research, Elsevier, Holland (2004-2013)**
- **Editor-In-Chief, Encyclopedia of Soil Science, Marcel Dekker/Taylor and Francis 2nd Edition, Dec. 2005 (1998-)**
- Soil Science Reviews, Elsevier, Holland (2002-)
- Soil Systems: The Scientific World, U.K. (2001-)
- Environmental International, Elsevier Science, U.K. (2001-)
- Geoderma, Elsevier, Holland (2001-)

- Critical Reviews in Plant Sciences, CRC (2001-)
- The West African J. Applied Ecology, Accra, Ghana (1999)
- Environment, Development and Sustainability, Kluwer Press, Holland (1998-2001)
- Progress in Environmental Science, Arnold, London (1998)
- Pedosphere, Science Press, Beijing, China (1998)
- Soil Science, Williams and Wilkins, Baltimore, MD (1996-)
- Editorial Board on Sustainable Agriculture, The Oxford University Press (1994-)
- Advances in Soil Science, CRC/ Lewis Publishers, Boca Raton, FL (1992-1998)
- The Encyclopedia of Soil Science & Technology, Von Nostrand Reinhold, New York, N.Y. (1992-1994)
- Land Degradation and Rehabilitation, Wiley, U.K. (1989-)
- Journal of Sustainable Agriculture, The Haworth Press, Inc., New York (1989-)
- J. of Agroethics, Taylor & Francis, N.Y. (1987-)
- Advances in Soil Science, Springer Verlag, N.Y. (1986-1992)
- International J. Tropical Agriculture, Hisar, India (1982-)
- Soil & Tillage Research, Elsevier, Holland (1980-)
- Field Crops Research, Elsevier, Holland (1978-1990)

INTERNATIONAL CONFERENCES ORGANIZED

1. Capacity Building for Managing Climate Change Among Smallholder Farmers and Agro-pastoral in East Africa, Malawi, 5-7 June 2018.
2. International Conference on Ecosystem Resilience and Agricultural Productivity, Kampala, Uganda, 22-24 November 2017.
3. International Conference on Climate Change and Multi-Dimensional Sustainability in African Agriculture, SUA, Morogoro Tanzania, 3-5 June, 2015
4. Sustainable intensification to mitigate climate change and advance food security in Sub-Saharan Africa, SUA, Morogoro Tanzania, 13-16 November 2013
5. Carbon Sequestration in the Terrestrial Biosphere and Ecosystem Services, IASS, Potsdam, Germany, November, 2011
6. Recarbonization of the Biosphere, IASS, Potsdam, Germany, 20-22 March 2011
7. Co-Chair International Workshop on Soil Carbon Sequestration and Climate Change, 27-30 June, Beijing, China, 2010
8. Regional Symposium on Climate Change, Food Security, Sea Level Rise and Environment in South Asia, 25-29 August, Dhaka, Bangladesh, 2008
9. Soil Carbon Sequestration in Central Asia, 2-4 November 2005, Columbus, OH, 2005
10. The Potential of Soils of Latin America to Sequester Carbon & Mitigate Climate Change, OSU/USP/IRD, Piracicaba, São Paulo, 2-5 June, Brazil, 2004
12. Climate Change and Global Food Security, 9-10 June, Columbus, OH, 2003
13. Effect of Land Use and Management on Erosion and Carbon Sequestration, 23-28 September, Montpellier, France, 2002
14. The Potential of U.S. Forest Lands to Sequester Carbon & Mitigate the Greenhouse Effect, 17-19 April, Charleston, SC, 2001
15. Reconciling Food Security and Environment Quality in Industrializing India, 7-8 March, Columbus, OH, 2001
16. No-till Farming in South Asia's Rice-Wheat System, 20-21 February, Columbus, OH, 2001
17. Agricultural Practices and Policies for C Sequestration in Soils: 19-23 July, Columbus, OH, 1999
18. Carbon Sequestration in Soils: Science, Monitoring and Beyond, 3-5 December, St. Michaels, Baltimore, Pacific Northwest
19. National Lab., Washington, D.C., 1998
20. Methods of Assessment of Soil Carbon, November, Columbus, OH, 1998
21. World soils and the greenhouse effect, SSSA, October, Baltimore, USA, 1998
22. Rangeland Management for Carbon Sequestration, 17-19 September, NMSU, NM, 1998
23. Carbon Pools and Dynamics in Tundra and Boreal Ecosystems, March, Columbus, OH., 1998
24. Carbon Pools and Dynamics in Tropical Ecosystems, 1-5 December, Belem, Brazil, 1997
25. Global Climate Change and Pedogenic Carbonates, 13-17 October, Tunis, Tunisia, 1997
26. Global Challenges in Ecosystem Mgt. in Watershed Context, SWCS, Toronto, Canada, 25-26 July 1997
27. Soil Quality and Agricultural Sustainability, Columbus, OH, 26-27 July 1996
28. Soil Quality and Erosion Interaction, SWCS, Keystone, CO, 7-8 July 1996
29. Carbon Sequestration In Soils, NRCS/FS, Columbus, Ohio, 22-26 July 1996
30. Conservation Tillage For Agricultural Sustainability And Water Quality, Hungarian Acad. Budapest, Hungary, 1994
31. Managing Acid Soils In Latin America, CIAT, Colombia (Chairperson), 1993
32. Soil Management and Agric. Sustainability, USAID, Columbus, Ohio, 1993
33. Soil Processes and Greenhouse Gas Emission, USDA/EPA, Columbus, Ohio, 1993
34. Twelfth Conference of ISTRO, Ibadan, Nigeria, 1991
35. Myths and Sci. of Soils of the Tropics, ASA, Las Vegas, Nevada, 1989
36. Soil Management for Sustainability, WASWC, Edmonton, Canada, 1989

37. Sustainable Agriculture, Columbus, Ohio, 1988
38. Tropical Deforestation, IBSRAM (Bangkok), Sumatra, Indonesia, 1986
39. Land Clearing and Development in the Tropics, Ibadan, Nigeria, 1982
40. Tropical Agricultural Hydrology, Ibadan, Nigeria, 1979
41. Soil Physics and Crop Production in the Tropics, Ibadan, Nigeria, 1977
42. Soil and Water Conservation and Management in the Humid Tropics, Ibadan, Nigeria, 1975

International Thematic Conferences Organized by Prof. Rattan Lal

| Theme | Period | Venue | Number |
|---|-----------|--|-----------|
| 1 Soil degradation, erosion | 1975-1987 | Nigeria, Indonesia, Thailand | 5 |
| 2 Sustainable agriculture | 1988-1993 | USA, Nigeria | 6 |
| 3 Tropical Soils | 1989-1993 | USA, Columbia | 4 |
| 4 Soil and water quality | 1995-1996 | USA, Canada | 2 |
| 5 Soil carbon dynamics and climate change | 1995-2010 | USA, Brazil, Morocco, France, C. Asia, Bangladesh, India, Germany, China | 15 |
| 6 Global food security | 1995-2018 | USA, Tanzania, Uganda, Malawi | 10 |
| Total | | | 42 |

GRANT PROPOSAL REVIEWER SINCE 1990

- National Oceanic and Atmospheric Administration (NASA), USA
- National Science Foundation, NAS, USA
- US-DOE, Washington, D.C.
- USDA-CSREES, Washington, D.C.
- USDA-NRI, Washington, D.C.
- National Geographic Society, USA
- The Royal Society, London, U.K.
- Natural Environmental Research Council, Swindon, U.K.
- The Rockefeller Foundation, East Africa Program, Nairobi, Kenya
- Third World Academy of Sciences, Trieste, Italy
- Sustainable Agricultural Research & Education (SARE), Lincoln, NE
- National Aeronautics and Space Administration, Washington, D.C.
- International Foundation for Science, Stockholm, Sweden
- BARD, Israel
- USDOD, Washington, D.C.

RESEARCH GRANTS SINCE 1982 (TOTAL TO DATE ~\$60 MILLION)

1. Danone, 2018-2022 (\$1.9 million)
2. OSMRE, 2016-2018 (\$200,000)
3. V. Kann Rasmussen Foundation, 4/2015- 3/2017 (\$250,000)
4. ESGP-Seed Grant, 2013 (\$50,000)
5. USDA –BRDI, 2013-2016(\$448,697)
6. USDA-AFRI, 2012-2015, (\$482,000)
7. IASS, Potsdam, Germany to organize two conferences 2011, \$92,687 (€70,000)
8. USDA-NIFA grant (multi institutional) \$25 million over 5 years (Co-PD)
9. OCDO, Carbon sequestration in minesoils, \$405,000 over 3 years (2008-2010)
10. Targeted Investment in Excellence (TIE), Climate, Water and Carbon Project, OSU, \$12 million over 5 years (2006-2010)
11. DOE, Midwestern Regional Carbon Sequestration Partnership, 2005-2009 (\$14 million for four years, co-PI with Battelle for OSU share of \$1.2 million)
12. Bush/Singh Agriculture Knowledge Initiative Grant, 2005 (\$60,000)
13. C-Site grant with ORNL, 2004-2006 (\$56,000/yr for 3 yrs)
14. C-Site grant with PNNL, 2004-2005 (\$32,000/yr for 3 years)
15. U.S. Army Corp of Engineers, 2004 (\$20,000)
16. National Energy Tech Lab, 2003-2006 (\$600,000)
17. DOE, Midwestern Regional Carbon Sequestration Partnership, 2003-2005 (\$2.4 million for two years; co-PI with Battelle as PI)
18. American Electric Power in collaboration with LANL, 2003-2005 (\$220,000 for three years, Co-PI)
19. LANL grant, 2003-2004 (\$70,000)
20. C-Site grant with PNNL, 2002-2003 (\$60,000)

21. USDA-NRCS, 2002-2004 (\$20,000)
22. CASMGS 2-year grant, 2002-2004 (\$800,000)
23. Office of International Affairs, OSU, 2001-2004 (\$40,000/yr)
24. Ohio Coal Development Office, 2002-2004 (\$600,000)
25. Los Alamos National Lab, 2002-2003 (\$60,000)
26. Office of Research, OSU, 2002-2003 (\$50,000)
27. Center for Development of Agriculture and Forestry, D.R., \$594,000 (Co-PI)
28. The Mershon Center, 2002-2003 (\$37,000)
29. USDA-NRCS, Soils and Greenhouse Effect, 2002-2003 (\$80,000)
30. JRD Tata Trust, India Program, 2000-2003 (\$467,000 for 3 years)
31. USDA-NRCS funds for Soils and Greenhouse Effect 2001-2002 (\$120,000)
32. Office of Research, OSU, 2001-2002 (\$50,000)
33. Los Alamos National Laboratory, 2001 (\$50,000)
34. OARDC-Multidisciplinary Research Award, 2001 (\$100,000)
35. USDA-NRCS: Soils and Greenhouse Effect, 2000-2001 (\$120,000)
36. USDA-NRCS: Land Use and Carbon Dynamics, 2000 (\$25,000)
37. The Nature Conservancy, Soil C Dynamics in Fish Creek Watershed, Phase I, 2000 (\$37,000)
38. DOE, Soil Carbon on Disturbed Lands, 2000 (\$20,000)
39. CAS MGS, 2000 (\$23,000)
40. Congressional appropriation to CASMGS group of 12 universities (\$15 million) with OSU share of \$0.8 million/yr
41. USDA-NRCS: Soils and Greenhouse Effect, 1999-2000 (\$120,000)
42. USDA-NRCS: State of Soil Degradation, 1999 (\$25,000)
43. USDA-ERS: Soil Degradation, 1999 (\$25,000)
44. Lockheed Martin Energy System Inc., 1999 (\$28,000)
45. DOE, Center for Global Change Cooperator, 1999 (\$29,500)
46. USDA-ERS: Soil degradation assessment, 1998-1999 (\$40,000)
47. USDA-SMSS: Conference grant for "Land Degradation" Thailand, 1998-1999 (\$12,000)
48. USDA-NRCS: Soil Management for C Sequestration, 1998-1999 (\$250,000)
49. Lockheed Martin Energy System Inc. 1997-2000 (\$148,000)
50. USDA-NRCS: Land use and C dynamic 1997-1998 (\$48,000)
51. USDA-NRCS: Soil Erosion and C Dynamics 1997-1998 (\$40,000)
52. GTZ conference grant, Tunisia 1997 (\$8,200)
53. USDA-NRCS conference grant, 1997 (\$60,000)
54. USDA-NRCS Research Bulletin, 1997 (\$26,328)
55. FGD Grant (Co-PI), \$265,507, 1996-98
56. USDA, Carbon Sequestration in Soils, \$30,000, 1996-97
57. SSSA international symposium, \$6,000, 1996
58. USDA, ARS/FS international symposium, \$35,000, 1995-96
59. SCS, Soil Erosion And Global Change, (\$100,000), 1994-1996
60. U.S.-Hungary Fund \$20,000, 1994
61. Research Council of Norway, \$60,000/yr for 3 years, 1993-1995
62. Conference grant
 - USDA-USEPA (\$100,000) 1993
63. USAID Funding for three conferences
 - Soil Management (\$22,500) 1993
 - ISTRO (\$30,000) 1991
 - Sustainable Agric. (\$30,000) 1988
64. Rockefeller Foundation (\$50,000) 1992-1993
65. US-EPA (\$50,000) 1991-1993
66. SANREM Planning Grant (\$150,000) 1991-1992
67. Special grant from IITA, (\$50,000) 1991-1992
68. Participants in Principal Multidisciplinary Grant Proposals
 - MSEA (\$350,000) 1991-1992, (\$360,000) 1992-1993
 - FGD (\$217,371) 1991-1995
69. USDA:
 - Technical Brochure (\$50,000) 1993-1994
 - N-use efficiency (\$50,000) 1991-1993

70. Proctor and Gamble
 - Soil Physical properties (\$50,000), 1992 (Co-PI)
 - Support grant (\$15,000) 1987
71. Conference grants
 - UNDP (\$30,000) 1991
 - Soil Sci. Soc. Am. (\$5,000) 1991
 - CTA-Holland (\$5,000) 1991
72. United Nations University, Tokyo, Japan (\$30,000) 1988-1991
73. Sustainable Agriculture-NC Region (\$40,000/yr.) 1989-1990
74. Sustainable Agriculture-NC Region (\$38,000/yr.) 1988-1989
75. United Nations University, Tokyo, Japan (\$1.1 million) 1983-1988
76. GTZ, Germany, (\$50,000/yr.) 1982-1987

CONSULTANCIES WITH INTERNATIONAL ORGANIZATIONS

1. USAID-FAS. Team Leader, SANREM –Innovation Laboratory Review (2013)
2. UNCCD, Zero Net Land Degradation, Position Paper (2012)
3. Center for Dev. Res., Germany (2010)
4. UNCCD position paper “Inter-Government Panel on Soil Sustainability” (IPSS) (2009)
5. FAO, Global Soil Partnership, FAO, Rome (2009-)
6. World Bank, Sustainable Land Management Bulletin, Washington, D.C. (2009)
7. CIMMYT Review, Team Leader, for Resource Management Program (2008)
8. World Bank, Washington (2008, 1998, 1997, 1989, 1988 - India) (1996, 1986- Brazil) (1997- Pakistan)
9. (1993, 1988 - Washington) (2001 - Morocco)
10. Winrock International, Uzbekistan 14-23 October (2002)
11. FAO/UNDP, Rome, Italy (2001, 1997, 1994, 1991, 1977 - India)
12. Los Alamos National Laboratory, Member of the Review Panel (2001-2004)
13. DOE, Washington (1998)
14. Asian Development Bank, Manila, Philippines (1998)
15. NATP-ICAR, India (1997-1998)
16. CIAT, Colombia (1996, 1992)
17. EMBRAPA - Brazil (1996, 1985)
18. NORAD, Tanzania (1995, 1994, 1993, 1992)
19. USAID, member of the CRSP review team (1994)
20. GTZ, Germany (1992, Colombia)
21. UNEP, Nairobi, Kenya (1991)
22. United Nations University (1990, 1983)
23. USAID, Morocco (1990)

COUNTRIES VISITED ON OFFICIAL MISSIONS

(a) Africa

Algeria, Benin, Burundi, Burkina Faso, Cameroon, Congo, Egypt, Ethiopia, Ghana, Ivory Coast, Kenya, Liberia, Libya, Madagascar, Malawi, Mali, Morocco, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Tanzania, Togo, Tunisia, Uganda, Zaire, Zambia, Zimbabwe

(b) Asia

Bangladesh, Cambodia, China, Dubai, India, Indonesia, Israel, Japan, Kuwait, Kazakhstan, Lebanon, Malaysia, Nepal, Pakistan, Philippines, South Korea, Sri Lanka, Syria, Taiwan, Thailand, Turkey, UAE, Uzbekistan

(c) South America

Argentina, Brazil, Colombia, Chile, Ecuador, Peru, Venezuela

(d) Central America

Costa Rica, Guatemala, Honduras, Nicaragua, Panama

(e) Caribbean

Dominican Republic, Haiti, Puerto Rico, Trinidad & Tobago

(f) North America

Canada, Mexico, USA

(g) Europe

Austria, Belgium, Denmark, France, Georgia, Germany, Greece, Holland, Hungary, Iceland, Italy, Moldova, Norway, Poland, Portugal, Russia, Slovakia, Spain, Sweden, Switzerland, Turkey, Ukraine, U.K., USSR

(h) Pacific

Australia, Fiji, New Zealand

COOPERATION WITH OVERSEAS UNIVERSITIES AND INSTITUTIONS**(a) Europe**

1. Agricultural University of Norway, As, Norway (program on agricultural sustainability in Africa, 1993-)
2. University of Hohenheim, Stuttgart, Germany (program on soil erosion in the Andes, Colombia, 1992-1997)
3. Ministry of Environment and Regional Policy, and The Hungarian Academy of Sciences, Budapest, Hungary (1994-1996)
4. Univ. of Ghent, Belgium, Assoc. Expert Program (1976-87)
5. Univ. of Munich and Gottingen, Assoc. Expert Program (1983-87)
6. Univ. of Reading, U.K. (1976-86)
7. Institute of Land Reclamation and Grassland Farming, Falenty, Poland (2000-)
8. IRD/CIRAD France (2002-)
9. Soil Conservation Service of Iceland (2002-)
10. University of Iceland (2007-)
11. Institute for Advance Sustainability Studies, Potsdam, Germany (2010-)
12. Helmholtz Zentrum (GFZ), Potsdam, Germany (2010-)
13. Government Office of Science, London, U.K. (2010-)
14. Faculty of Agriculture, Aarhus University, Denmark (2010-)
15. University of Bonn, Germany
16. Intl. Center for Advanced Mediterranean Agronomic Studies, (CIHEAM), Valenzano, Italy
17. University of Cordoba, Spain
18. CIRAD, Montreal, France
19. University of Natural Resources and Life Sciences, Vienna Austria

(b) Africa

1. Sokoine Univ. of Agric., Morogoro, Tanzania (1980-85, 1994-97)
2. Univ. of Ibadan, Nigeria (1970-87)
3. Univ. of Ghana, Legon (1974-80; 1996-97)
4. Makerere University, Kampala, Uganda (1988-)
5. Egerton University, Kenya
6. Hawassa University, Hawassa, Ethiopia
7. Addis Ababa University, Addis Ababa, Ethiopia
8. Univ. of Nairobi, Kenya
9. ICARDA, Cairo, Egypt

(c) Asia

1. Univ. Putra, Malaysia, Kuala Lumpur (external faculty reviewer, 1995-)
2. Tamil Nadu Agric. Univ., Coimbatore, India (1998-)
3. ANGR Agric. Univ., Hyderabad, India (1998-)
4. Indian Institute of Technology, Kharagpur, India (1997-)
5. Punjab Agricultural University, Ludhiana, India (1998-)
6. Haryana Agricultural University, Hisar, India (1998-)
7. JLNKVV, Jabalpur, India (2001-)
8. M.S. Swaminathan Res. Foundation (2000-)
9. University of Agriculture, Faisalabad, Pakistan (1997-)
10. Indian Council of Agricultural Research (1995-)
11. Tashkent Institute of Irrigation & Agricultural Mechanics, Uzbekistan (2002-)
12. Bahauddin Zakaria University, Multan, Pakistan (2008-)
13. Ben Gurion University of the Negev, Israel (2008-)
14. Sultan Qaboss University, Oman (2009-)
15. University Putra, Serdang, Malasia
16. PMAS Arid Agricultural University, Rawalpindi, Pakistan
17. B.Z. University, Multan, Pakistan
18. Northwest A&F University, Yangling, Shaanxi, China
19. Himachal Pradesh Agricultural University, Palampur, India
20. Northwest A&F University, China
21. Indian Institute of Soil Science, Bhopal, India
22. Center of Research in Druland Agriculture, Hyderabad, India

23. Kathmandu University, Nepal

(d) South America

1. Univ. of Palmira, Colombia (1997-)
2. Univ. of Sao Paulo Piracicaba, Brazil (1997-)
3. Univ. of Bahia Blanca, Argentina (1995)
4. Universidad de Buenos Aires, Argentina (2000)
5. Univ. Of Audonoma de Santo Domingo, D.R. (2002-2005)
6. Center Para El Desaprollo Agropecuario y Forestal, Inc., D.R. (2002-2005)
7. CENBIO, Sao Paulo, Brazil (2009-)
8. Univerity Federal de Lavras,Brazil
9. Sao Paulo State University, Piracicaba, SP- Brazil
10. Universidade Estadual de Ponta,Grossa, Brazil
11. State University of Mato Grasso, Brazil
12. Universidade Estadual ed Maringa,PR,Brazil
13. Universidade Estadual Paulista Julio de Mesquita Filho, Jaboticabal, SP- Brazil
14. Federal University of Lavras, Brazil
15. Universidade Estadul de Ponta Grassa, PR, Brazil

SERVICE TO THE OHIO STATE UNIVERSITY COMMUNITY

- Member, PPAC (2011-)
- Member, President's Council on Sustainable Development (2009-)
- Member, India Gateway Committee (2009-)
- Member, India Program Steering Committee (2009-)
- Member, Graduate Council (2008-2009)
- Member, University Senate (2007-2009)
- Member, Senate Steering Committee (2007-2009)
- Member, Faculty Cabinet (2007-2009)
- Member, Faculty Council(2007-2009)
- Member, University Research Committee(2007-2009)
- Chair, Honorary Degree Committee (2007-2009)
- Member, OSU Honorary Degree Committee (2004-2007)
- Member, Research and Graduate Council (2004- 2006)
- Graduate Associates and Fellowship Committee of the University (2004-2006, 1996-1998)
- Honorary Doctorate Degrees in Soil Science and Natural Resources (12 nominees processed and awarded from 2004 - 1989)
- Coordinator, OSU/Battelle Project on MRCSP (2003-2010)
- Faculty Coordinator, Climate Change CIRIT (OIA) (2002-2006)
- Member, Advisory Committee, Center for African Studies (2002-2003)
- Coordinator, CCERI (Office of Research) (2001-2003)
- Member, South Asia Committee, OIA (2001-2003)
- Coordinator, OSU-CASMGS program (2000-2004)
- Member, Selection Committee, Anderson Chair, FAES, (2000, 2004)
- Member, Screening Committee, Associate Provost International Affairs (2000)
- Member, India Cooperative Program Steering Committee (Visited India with President Kirwan and have since developed collaborative programs with PAU and ICAR) (1998-)
- University Distinguished Scholar Award Committee (1998-2000)
- Member, Univ. Postdoctoral Fellowship Committee (1989-90; 1994-95)
- Member, Graduate Studies Committee of Soil Science (1998-1999; 1996-1997; 1991-1992; 1988-1989)
- Member, Policy and Standard Committee, Faculty Council (1997-2000)
- Natural Resources (1996-98)
- Environmental Science (1996-98)
- Member, Faculty Council, College of Food, Agric. & Env. Science (1996-1998)
- Member, Int'l Committee on Project Reinvent (1996-1998)
- Member Int'l Advisory Committee, College of Food, Agric. & Env. Science (1988-1990)

SOILS RESOLUTION

As President of the Soil Science Society of America (2007), Prof. Lal spearheaded the “Soils Resolution” for adoption by the U.S. Senate. The Resolution “Recognizing Soils As An Essential Natural Resource” (S.R. 401) was adopted unanimously by the U.S. Senate on 23 June, 2008. This Resolution is the first of its kind adopted by any government.

TESTIMONY TO U.S. CONGRESSIONAL BRIEFINGS AND SENATE HEARINGS

1. Lal, R. 2006. House Soil Caucus, 8 December, Cannon House Office Building, Washington, D.C.
2. Lal, R. 2003. Potential of agricultural sequestration to address climate change. Senate Committee on Environments and Public Works. 8 July 2003, Dirksen Senate Office Building, Washington, D.C.
3. Lal, R. 2001. Importance of soil carbon in mitigating global warming. Senate Hearing, EPW Committee. Senate Office Building, 30 April 2001, Washington, D.C.
4. Lal, R. 2001. Soil Carbon sequestration and climate change. Senate Hearing. Science and Technical Sub-Committee, 24, May, 2001, Washington, D.C.
5. Lal, R. 2000. Senate Agricultural Sub-Committee, 4 May, 2000, Washington, D.C.
6. Lal, R. 1999. Soil management for achieving global food security and mitigating the greenhouse effect. Cannon House Office Building, 18 October 1999, Washington, D.C.
7. Lal, R. 1999. Policy implications for soil carbon sequestration. Congressional Briefing, 3 August 1999, Hart Senate Office Building, Washington, D.C.

MAJOR INTERESTS

(a) Research

Climate change and land use, soil processes and greenhouse effect, soil erosion and greenhouse gas emissions, soil C sequestration, sustainable management of soil and water resources, restoration and rehabilitation of degraded lands and mine lands, soil and water conservation, soil structure and compaction, conservation tillage, natural resources management with particular emphasis on food security in relation to environment quality, soil degradation and food security.

(b) International agriculture

Agriculture development in the third world, particularly through research on sustainable management of natural resources, soil productivity and environmental quality, and institutional building.

TEACHING EXPERIENCE

- Environmental Soil Physics ENR 5261, since 2012
- Soils and Climate Change ENR 5268, (jointly with School of Earth Sciences) since 2012
- Soils and Climate Change ENR 871, (jointly with School of Earth Sciences) (2008-2011)
- Climate Change, Science, Policy and Human Dimension (Intl. Studies, 3 cr) (2002-2003)
- Soils and the Greenhouse Effect (Soil Sci 871, 3 cr) (1999-2007, alternate years)
- Global Land Degradation (NR797, 3 cr) (1999-2002)
- Environmental Hot Spots: Middle East & Africa (NR693, 3 cr) (1999-2000)
- Soil Physics course, Pakistan Agric. Res. Board, Faisalabad, March-April (1997)
- Soil Degradation and Conservation In The Tropics, Ohio State/Univ. Hohenheim, Germany (1994-1996)
- Soil and Water Conservation, Training Course, India, (1994)
- Tropical Soils (Agron 643, 3 Cr.) (1993)
- Advanced Soil Physics (Agron 871, 3 Cr.) (1989-)
- Environmental Soil Physics (ENR 671, 5 Cr.) (1988-)
- Soil Management (Agron 442, 5 Cr.) (1988)
- Soils and Climate Change ENR 671 (1987-2011)
- Soil and Water Conservation, Univ. of Maracay, Venezuela (1978)
- Soil and Water Conservation, Ibadan, Nigeria (1976-1986)

GRADUATE STUDENT RESEARCH SUPERVISION

| | |
|------------------------------------|-----------------------------------|
| M.Sc..... | 58 (from 14 countries) |
| Ph.D..... | 52 (from 20 countries) |
| Special trainees (non-degree)..... | 25 (from India/ NATP/ World Bank) |

POSTDOCTORAL RESEARCH SUPERVISION AND VISITING SCIENTISTS

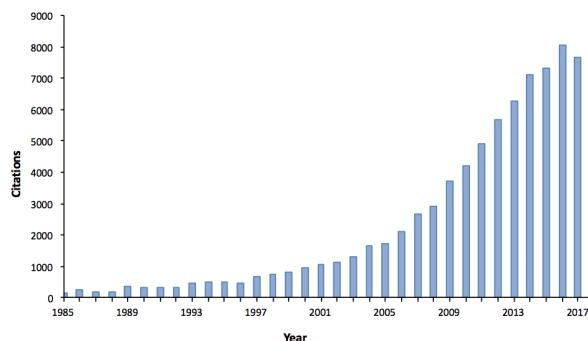
| | |
|--------------------------|-------------------------|
| Postdoctoral..... | 54 (from 24 countries) |
| Visiting Scientists..... | 169 (from 18 countries) |

SOME SIGNIFICANT PUBLICATIONS

| Journal Article | Citations |
|--|-----------|
| 1. Lal, R. 2004. Soil carbon sequestration impacts on global climate change and food security. <i>Science</i> 304: 1623-1627 | 4054 |
| 2. Lal, R. 2004. Soil carbon sequestration to mitigate climate change. <i>Geoderma</i> 123:1-22. | 2153 |
| 3. Bronick, C.J., Lal, R. 2005. Soil structure and management: a review. <i>Geoderma</i> 124:3-22. | 2061 |
| 4. Lal, R. 2005. Forest soils and carbon sequestration. <i>Forest Ecology and Management</i> 220:242-258. | 1035 |
| 5. Lal, R. 2003. Soil erosion and the global carbon budget. <i>Environment International</i> 29:437-450. | 944 |
| 6. Paustian, K., Andr en, Janzen, H.H., Lal, R., Smith, P., Tian, G., Tiessen, H., Van Noordwijk, Woomer, P.L. 1997. Agricultural soils as a sink to mitigate CO ₂ emissions. <i>Soil Use and Management</i> 13: 230-244. | 893 |
| 7. Lal, R. 2004. Carbon emission from farm operations. <i>Environment International</i> 30:981-990. | 855 |
| 8. Lal, R. 2008. Carbon sequestration. <i>Philosophical Transactions of the Royal Society B</i> 363:815-830. | 714 |
| 9. Lal, R. 2001. Soil degradation by erosion. <i>Land Degradation & Development</i> 12:519-539. | 700 |
| 10. Lal, R. 2005. World crop residues production and implications of its use as a biofuel. <i>Environment International</i> 31: 575-584. | 647 |
| 11. Lal, R. 2002. Soil carbon dynamics in cropland and rangeland. <i>Environmental Pollution</i> 116:353-362. | 575 |
| 12. Lal, R. 1997. Residue management, conservation tillage and soil restoration for mitigating greenhouse effect by CO ₂ -enrichment. <i>Soil & Tillage Research</i> 43:81-107. | 569 |
| 13. Lal, R. 1998. Soil erosion impact on agronomic productivity and environment quality. <i>Critical Reviews in Plant Sciences</i> 17:319-464. | 547 |
| 14. Lal, R. 2006. Enhancing crop yields in the developing countries through restoration of the soil organic carbon pool in agricultural lands. <i>Land Degradation & Development</i> 17:197-209 | 506 |
| 15. Bruce, J.P., Frome, M., Haites, E. Janzen, H., Lal, R., Paustian, K. 1999. Carbon sequestration in soils. <i>Journal of Soil and Water Conservation</i> 54:382-389. | 473 |
| 16. Lal, R. 2003. Global potential of soil carbon sequestration to mitigate the greenhouse effect. <i>Plant Sci</i> 22:151-184. | 472 |
| 17. Blanco-Canqui, H., Lal, R. 2008. No-tillage and soil-profile carbon sequestration: an on-farm assessment. <i>Soil Science Society of America Journal</i> 72:693-701. | 444 |
| 18. Lal, R., Kimble, J.M. 1997. Conservation tillage for carbon sequestration. <i>Nutrient Cycling in Agroecosystems</i> 49:243-253. | 417 |
| 19. Lal, R., Follett, R.F., Kimble, J., Cole, C.V. 1999. Managing U.S. cropland to sequester carbon in soil. <i>Journal of Soil and Water Conservation</i> . 54:374-381. | 407 |
| 20. Lal, R. 1976. No-tillage effects on soil properties under different crops in Western Nigeria. <i>Soil Science Society of America Proceedings</i> 40:762-768. | 400 |
| 21. Sa, J.C. de M., Cerri, C.C., Lal, R., Dick, W.A., Filho, S.P.V., Piccolo, M.C., Fiegl, B.E. 2001. Organic matter dynamics and carbon sequestration rates in a no-tillage chronosequence in a Brazilian Oxisol. <i>Soil Science Society of America Journal</i> 65: 1486-1499. | 396 |
| 22. Lal, R. 2004. Carbon sequestration in dryland ecosystem | 395 |
| 23. Lal, R. 1989. Conservation tillage for sustainable agriculture: tropics versus temperate environments. <i>Advances in Agronomy</i> 42:85-197. | 395 |
| 24. Lal, R., D.C. Reicosky, J.D. Hanson. 2007. Evolution of the plow over 10,000 years and the rationale for no-till farming. <i>Soil and Tillage Research</i> 93 (1):1-12 | 369 |
| 25. Shukla, M.K., R. Lal, M. Ebinger. 2006. Determining soil quality indicators by factor analysis | 368 |

CITATION INDEX FOR PROF. RATTAN LAL

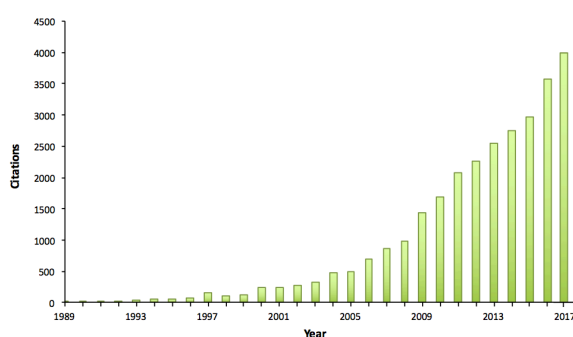
Google Scholar



Citations Indices (as of 1/2018): *Google Scholar*

| | All | Since 2012 |
|------------------|-------|------------|
| Citations | 79823 | 37371 |
| h-index | 132 | 89 |
| i10-index | 899 | 601 |

Web of Science



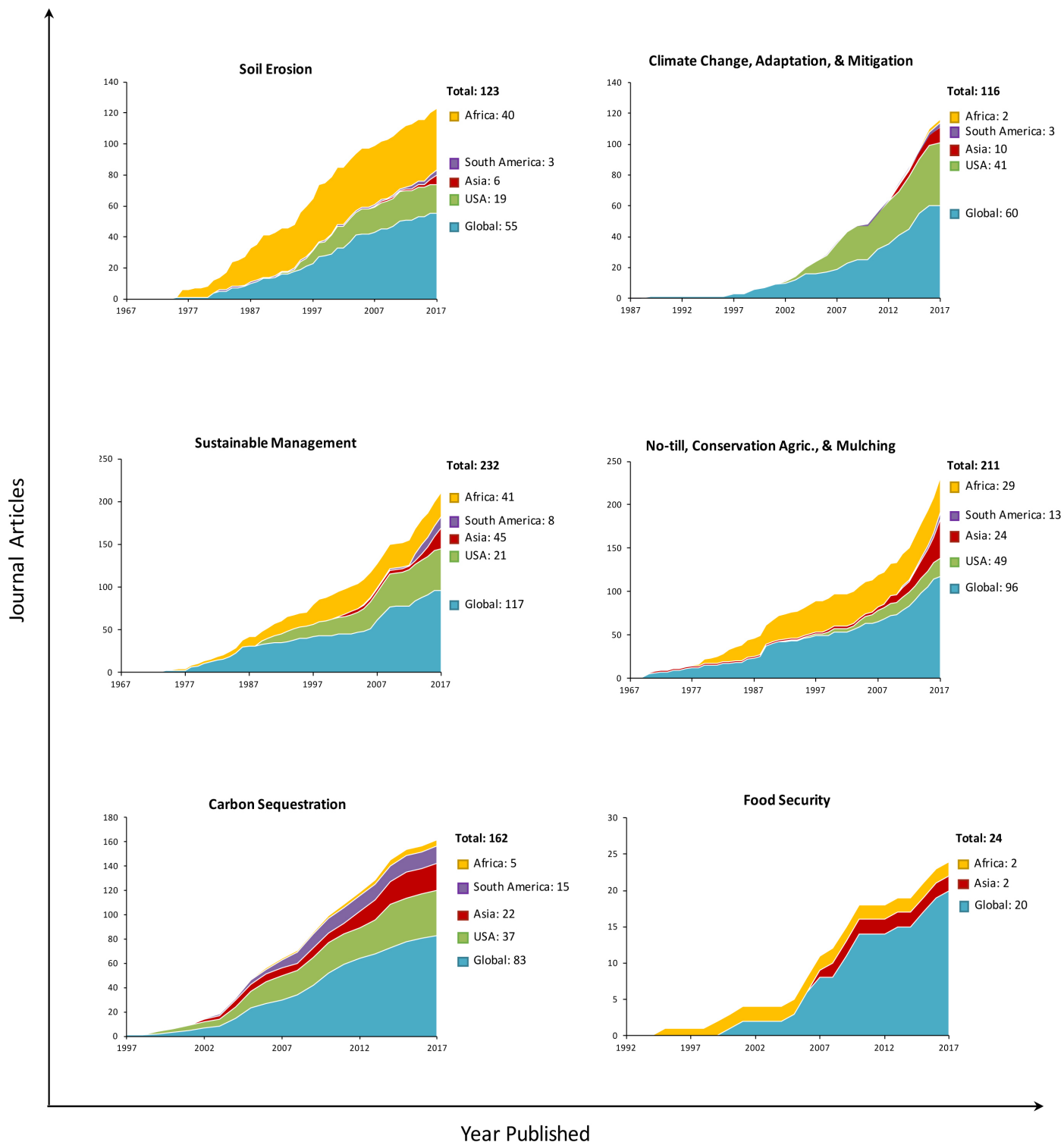
Citations Indices (as of 1/2018): *Web of Science*

| | All | Since 2012 |
|------------------|-------|------------|
| Citations | 26566 | 12743 |
| h-index | 82 | - |

Publications of Prof. R. Lal from 1967-2017

| Year | Books Written | Books Edited | Refereed Journal Articles | Chapters in Multi-authored Books | Invited Keynote Presentations | Voluntary or Conference Papers | Misc Publications | TOTAL |
|--------------|---------------|--------------|---------------------------|----------------------------------|-------------------------------|--------------------------------|-------------------|-------------|
| 2017 | 1 | 3 | 50 | 21 | 31 | 5 | 5 | 116 |
| 2016 | 0 | 2 | 50 | 41 | 26 | 3 | 6 | 128 |
| 2015 | 0 | 3 | 47 | 38 | 33 | 2 | 0 | 123 |
| 2014 | 0 | 0 | 54 | 18 | 17 | 18 | 4 | 111 |
| 2013 | 1 | 3 | 49 | 22 | 21 | 10 | 0 | 106 |
| 2012 | 0 | 5 | 31 | 32 | 16 | 12 | 3 | 99 |
| 2011 | 0 | 1 | 33 | 8 | 30 | 4 | 0 | 76 |
| 2010 | 1 | 2 | 21 | 20 | 17 | 10 | 2 | 73 |
| 2009 | 0 | 1 | 45 | 15 | 26 | 0 | 2 | 89 |
| 2008 | 1 | 0 | 31 | 3 | 23 | 13 | 8 | 79 |
| 2007 | 0 | 2 | 38 | 9 | 12 | 9 | 17 | 87 |
| 2006 | 0 | 4 | 26 | 35 | 15 | 2 | 0 | 82 |
| 2005 | 0 | 1 | 34 | 4 | 11 | 9 | 1 | 60 |
| 2004 | 2 | 1 | 32 | 8 | 9 | 7 | 5 | 64 |
| 2003 | 0 | 2 | 17 | 9 | 6 | 0 | 1 | 35 |
| 2002 | 0 | 2 | 10 | 24 | 6 | 5 | 2 | 49 |
| 2001 | 1 | 3 | 17 | 16 | 9 | 1 | 5 | 52 |
| 2000 | 0 | 4 | 16 | 24 | 18 | 3 | 7 | 72 |
| 1999 | 1 | 1 | 13 | 8 | 21 | 4 | 2 | 50 |
| 1998 | 0 | 4 | 15 | 29 | 14 | 5 | 6 | 73 |
| 1997 | 0 | 1 | 21 | 3 | 6 | 0 | 5 | 36 |
| 1996 | 0 | 0 | 9 | 3 | 8 | 3 | 1 | 24 |
| 1995 | 2 | 4 | 15 | 15 | 2 | 1 | 0 | 39 |
| 1994 | 1 | 3 | 6 | 11 | 10 | 1 | 0 | 32 |
| 1993 | 0 | 1 | 7 | 11 | 7 | 1 | 3 | 30 |
| 1992 | 1 | 2 | 8 | 2 | 2 | 2 | 1 | 18 |
| 1991 | 0 | 3 | 12 | 9 | 7 | 8 | 3 | 42 |
| 1990 | 1 | 3 | 10 | 2 | 10 | 1 | 4 | 31 |
| 1989 | 0 | 0 | 25 | 2 | 1 | 3 | 0 | 31 |
| 1988 | 0 | 1 | 5 | 11 | 4 | 12 | 1 | 34 |
| 1987 | 1 | 1 | 12 | 4 | 6 | 0 | 4 | 28 |
| 1986 | 0 | 1 | 17 | 6 | 8 | 0 | 0 | 32 |
| 1985 | 1 | 0 | 7 | 0 | 12 | 3 | 0 | 23 |
| 1984 | 0 | 0 | 14 | 2 | 8 | 4 | 0 | 28 |
| 1983 | 1 | 0 | 10 | 0 | 5 | 5 | 0 | 21 |
| 1982 | 0 | 0 | 8 | 0 | 4 | 5 | 0 | 17 |
| 1981 | 1 | 1 | 8 | 6 | 1 | 0 | 0 | 17 |
| 1980 | 0 | 0 | 5 | 12 | 1 | 7 | 0 | 25 |
| 1979 | 0 | 2 | 8 | 10 | 2 | 1 | 3 | 26 |
| 1978 | 0 | 0 | 7 | 4 | 2 | 1 | 0 | 14 |
| 1977 | 0 | 1 | 1 | 6 | 3 | 1 | 0 | 12 |
| 1976 | 1 | 0 | 8 | 2 | 2 | 2 | 0 | 15 |
| 1975 | 2 | 0 | 1 | 0 | 1 | 3 | 0 | 7 |
| 1974 | 0 | 0 | 5 | 1 | 2 | 2 | 0 | 10 |
| 1973 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 1972 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 1971 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| 1970 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 |
| 1969 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 1968 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1967 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Total | 20 | 68 | 868 | 506 | 475 | 189 | 101 | 2227 |

JOURNAL ARTICLES BY THEMES AND REGIONS



**Thematic Distribution of Books Published
By Prof. R. Lal (1967-2017)**

| Theme | Books Authored | Books Edited |
|---|----------------|--------------|
| 1. Soil erosion and sedimentation | 3 | 3 |
| 2. Conservation Agriculture (No-till and mulch farming) | 3 | 2 |
| 3. Carbon sequestration, cycling | 4 | 25 |
| 4. Soil structure, compaction, crusting, erodibility | | |
| 5. Sustainable management of soils | 3 | 13 |
| 6. Tropical deforestation and watershed management | 1 | 3 |
| 7. Soil quality assessment and management | | 1 |
| 8. Mine soil reclamation | | |
| 9. Soil-water management | | |
| 10. Greenhouse effect, abrupt climate change | 1 | 7 |
| 11. Soil degradation and desertification | 1 | 3 |
| 12. Global food security | | 5 |
| 13. Soil drainage, water table management | 1 | |
| 14. Soil thermal properties and temperature | | |
| 15. Biofuel feeds stock and soil quality | | 1 |
| 16. Agroforestry systems | | |
| 17. Bioturbation/soil fauna | | |
| 18. Carbon farming | | |
| 19. Soil Science/Soil Ecology | 2 | 4 |
| 20. Soil Physics | 1 | 1 |
| Total | 20 | 68 |