

Curriculum Vitae et Studiorum



Dr. **Maria Cristina Rulli** is Professor of Hydrology and Water and Food Security at the Politecnico di Milano since 2019, she is vice president of the Italian Society of Water Engineering since 2021. In 2025 she has been elected member of the Italian Academy of Engineering and Technology (ITATEC). She is fellow of Istituto Veneto di Scienze Lettere ed Arti and Union Fellow of the American Geophysical Union since 2024. In 2024 she has been awarded with the 11th Prince Sultan Bin Abdulaziz International Prize for Water-Creativity Prize. Her research focuses on the interaction between hydrological processes and humanity. Using the Food-Energy-Water (FEW) nexus perspective, she has been investigating the impacts on food and water security induced by global changes. She has focused on the emergent phenomenon of Large Scale Land Acquisition (LSLA) and its implication on water, energy and food security, as well as on water governance, rural livelihoods, and the emergence of water conflicts. Her most recent research concentrates on the nexus between Health and Arid Environment focusing on the potential nexus between the unsustainable food system and the insurgence of diseases (e.g., food, nutrition related, zoonotic, uncommunicable).

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EDUCATION

PH.D. IN HYDROLOGY, February 2001. Politecnico di Milano, Milano, Italy.

M.S. IN ENVIRONMENTAL ENGINEERING, 1996, University of Perugia, Italy. MAGNA CUM LAUDE DISTINCTION.

PROFESSIONAL EMPLOYMENT

FULL PROFESSOR, September 2019-present, Department of Civil and environmental Engineering, Politecnico di Milano, Milano, Italy.

ASSOCIATE PROFESSOR, March 2013-September 2019, Department of Civil and environmental Engineering, Politecnico di Milano, Milano, Italy.

ADJUNCT RESEARCHER, National Research Council of Italy, Biometeorology division, Sassari, Italy.

ASSISTANT PROFESSOR, September 2003-March 2013, Department of Civil and environmental Engineering, Politecnico di Milano, Milano, Italy.

POSTDOCTORAL RESEARCH ASSOCIATE, March 2000-September 2003, Department of Civil and environmental Engineering, Politecnico di Milano, Milano, Italy.

RESEARCH ASSOCIATE, May 1998-December 1998, Department of Earth and Planetary Science, University of California at Berkeley, Berkeley, CA, USA.

HONORS, RECOGNITION AND AWARDS

2025 FELLOW – ITALIAN ACADEMY OF ENGINEERING AND TECHNOLOGY (ITATEC)

2024 FELLOW – ISTITUTO VENETO DI SCIENZE, LETTERE ED ARTI- VENETO ACADEMY OF SCIENCES, HUMANITIES, AND ART (IVSLA)

2024 UNION FELLOW – AMERICAN GEOPHYSICAL UNION (AGU)

2024 11TH PRINCE SULTAN BIN ABDULAZIZ INTERNATIONAL PRIZE FOR WATER-CREATIVITY PRIZE (PSIPW)

2022 DISTINGUISHED LECTURE - ACCADEMIA NAZIONALE DEI LINCEI. LECTURE ON THE ROLE OF WATER IN ACHIEVING SUSTAINABLE FOOD AND WATER SECURITY

2021 GENERAL LECTURE - AGU UNION SESSION THE GRAND TRANSFORMATION NEEDED TO ADDRESS CLIMATE CHANGE. LECTURE ON “FOOD, ENERGY AND WATER NEXUS IN THE CONTEXT OF GLOBAL HEALTH”

2021 GENERAL LECTURE – US EMBASSY MANILA. LECTURE ON LAND USE CHANGE, THE LIVESTOCK REVOLUTION, AND CORONAVIRUSES

2019 GENERAL LECTURE - AGU CENTENNIAL CELEBRATION, BEIJING, CHINA. LECTURE ON THE GLOBAL FOOD-ENERGY-WATER NEXUS: HOW WATER CONTROLS SUSTAINABLE FOOD SECURITY

2016 GENERAL LECTURE - ITALIAN REPUBLIC SENATE. LECTURE ON GENDER AND WATER SECURITY

2015 DISTINGUISHED LECTURE - ISTITUTO LOMBARDO ACCADEMIA DI SCIENZE E LETTERE. LECTURE ON WATER RESOURCES TO FEED THE PLANET

2003 YOUNG RESEARCHER AWARD, INSTITUTE FOR MOUNTAIN RESEARCH

2002 PRIZE INNOVATIONS FOR THE ENVIRONMENT, LEGAMBIENTE FOUNDATION

1996 MAGNA CUM LAUDE DISTINCTION, UNIVERSITY OF PERUGIA

EDITORIAL SERVICE:

EDITOR:
EARTH'S FUTURE (2024-PRESENT);

EDITORIAL BOARD MEMBER:
HYDROLOGICAL SCIENCES JOURNAL (2022-PRESENT); ADVANCES IN WATER RESOURCES (2021-PRESENT); FRONTIERS IN ENVIRONMENTAL SCIENCES (2018-PRESENT).

GUEST EDITOR:
ADVANCES IN WATER RESOURCES (2017-2019)

REVIEWER AND PANELIST: 200+ MANUSCRIPTS FOR PEER-REVIEWED JOURNALS INCLUDING NATURE, NATURE FOOD, NATURE GEOSCIENCE, NATURE WATER, PNAS, SCIENCE ADVANCES, BIOSCIENCE, WATER RESOURCES RESEARCH, GRL, EARTH'S FUTURE, ADVANCES IN WATER RESOURCES, ERL AND 50+ GRANTS FOR MULTIPLE FUNDING AGENCIES.

COORDINATOR OF EXPERTS EVALUATION PANELS FOR THE EUROPEAN UNION.

COMMITMENT TO THE DISSEMINATION OF SCIENTIFIC RESULTS TO THE GENERAL PUBLIC: 40+ SEMINARS TO ELEMENTARY, MIDDLE AND HIGH SCHOOL STUDENTS, 20+ SEMINARS TO HUMANITARIAN SERVICE ORGANIZATION, 30+ SEMINARS TO PRIVATE AND PUBLIC COMPANIES AND ENTERPRISES ON THE RELATIONSHIP EXISTING BETWEEN WATER AND FOOD PRODUCTION, THE COMPLEX ISSUES RELATED TO RESOURCE SCARCITY AND THE SOCIETAL IMPACTS OF GLOBAL ENVIRONMENTAL CHANGE.

POLICY IMPACT OF THE RESEARCH AND MEDIA COVERAGE:

20+ POLICY DOCUMENTS (FAO, IUCN, WB, WHO, UNEP, EU, PBL) REFERENCE TO RESEARCH OUTPUT REPORTED ON PAPERS** 1000+ NEWS STORIES REFERENCE TO THE PAPERS REPORTED IN “SELECTED PUBLICATION”

PROFESSIONAL ORGANIZATIONS

ITALIAN SOCIETY OF WATER ENGINEERING (GII), MEMBER (2017-PRESENT), ELECTED MEMBER OF THE SCIENTIFIC BOARD (2021-PRESENT); VICE-PRESIDENT (2021-PRESENT)

THE ITALIAN SOCIETY OF HYDROLOGY (SII), MEMBER (2017-PRESENT), ELECTED MEMBER OF THE SCIENTIFIC BOARD (2016-2020)

INTERDISCIPLINARY RESEARCH CENTRE ON SUSTAINABILITY AND HUMAN SECURITY (SHUS), ELECTED MEMBER OF THE ADVISORY BOARD (2016-PRESENT)

TEACHING ACTIVITIES IN ITALY

INSTITUTIONAL COURSE TEACHING ASSIGNMENTS

ACADEMIC YEAR 2013-2014;2014-2015;.....2024-2025

TEACHING ASSIGNMENT FOR THE COURSE *WATER AND FOOD SECURITY* AT THE POLITECNICO DI MILANO, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

ACADEMIC YEAR 2019-2020;2020-2021;.....2024-2025

TEACHING ASSIGNMENT FOR THE COURSE *CLIMATE AND GLOBAL CHANGE IN THE AGE OF SUSTAINABLE DEVELOPMENT* AT THE POLITECNICO DI MILANO, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

ACADEMIC YEAR 2015-2016;.....2024-2025

TEACHING ASSIGNMENT FOR THE COURSE *CLIMATE AND HYDROLOGY* AT THE POLITECNICO DI MILANO, FACULTY OF ARCHITECTURE I (ARCHITECTURE STUDENTS).

ACADEMIC YEARS 2010-2013

TEACHING ASSIGNMENT FOR THE COURSE *PHYSICAL-MATHEMATICAL MODELING OF HYDROLOGICAL PROCESSES* AT THE POLITECNICO DI MILANO, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

ACADEMIC YEARS 2009-2010, 2008-2009, 2007-2008, 2006-2007, 2005-2006

TEACHING ASSIGNMENT FOR THE COURSE *HYDROLOGICAL SIMULATION METHODS* AT THE POLITECNICO DI MILANO, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

ACADEMIC YEARS 2011-2012, 2010-2011, 2009-2010, 2008-2009, 2007-2008

TEACHING ASSIGNMENT FOR THE COURSE *HYDROLOGY* AT THE POLITECNICO DI MILANO, FACULTY OF ENGINEERING I (CIVIL ENGINEERING STUDENTS).

ACADEMIC YEARS 2006-2007, 2005-2006, 2004-2005, 2003-2004, 2002-2003, 2001-2002

TEACHING ASSIGNMENT FOR THE COURSE *HYDROLOGY I WITH LABORATORY* AT THE POLITECNICO DI MILANO, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

ACADEMIC YEARS 2003-2004, 2002-2003

TEACHING ASSIGNMENT FOR THE COURSE *HYDROLOGY* AT THE POLITECNICO DI MILANO - COMO CAMPUS, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

ACADEMIC YEAR 2002-2003

TEACHING ASSIGNMENT FOR THE COURSE *HYDRAULIC INFRASTRUCTURES* AT THE POLITECNICO DI MILANO, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

TEACHING SUPPORT ASSIGNMENTS

ACADEMIC YEARS 2001-2002, 2000-2001, 1999-2000

ASSIGNMENT FOR INTELLECTUAL SERVICES IN SUPPORT OF TEACHING IN THE COURSE *HYDRAULIC INFRASTRUCTURES* AT THE POLITECNICO DI MILANO, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

ACADEMIC YEAR 2000-2001

ASSIGNMENT FOR INTELLECTUAL SERVICES IN SUPPORT OF TEACHING IN THE COURSE *HYDRAULIC INFRASTRUCTURES* AT THE POLITECNICO DI MILANO - COMO CAMPUS, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

ACADEMIC YEAR 1999-2000

ASSIGNMENT FOR INTELLECTUAL SERVICES IN SUPPORT OF TEACHING IN THE COURSE *HYDROLOGY* AT THE

POLITECNICO DI MILANO – COMO CAMPUS, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

ACADEMIC YEAR 1999–2000

ASSIGNMENT FOR INTELLECTUAL SERVICES IN SUPPORT OF TEACHING IN THE COURSE *HYDROLOGY LABORATORY* AT THE POLITECNICO DI MILANO – COMO CAMPUS, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

ACADEMIC YEAR 1998–1999

ASSIGNMENT FOR INTELLECTUAL SERVICES IN SUPPORT OF TEACHING IN THE COURSE *AQUEDUCTS AND SEWERS* AT THE POLITECNICO DI MILANO – COMO CAMPUS, FACULTY OF ENGINEERING I (ENVIRONMENTAL AND LAND ENGINEERING STUDENTS).

TEACHING ACTIVITIES ABROAD

TEACHING ASSIGNMENTS

2007: TEACHING ASSIGNMENT FOR THE COURSE *GIS TERRAIN ANALYSIS FOR HYDRO-GEOMORPHIC APPLICATIONS*, COLUMBIA UNIVERSITY, DEPARTMENT OF EARTH AND ENVIRONMENTAL ENGINEERING, NEW YORK, USA.

2008: TEACHING ASSIGNMENT FOR THE COURSE *GIS TERRAIN ANALYSIS FOR HYDRO-GEOMORPHIC APPLICATIONS*, POLYTECHNIC UNIVERSITY, NEW YORK, USA.

SEMINAR ACTIVITIES AT FOREIGN UNIVERSITIES

1998: INVITED BY THE UNIVERSITY OF CALIFORNIA AT BERKELEY, USA, FOR A SEMINAR TITLED *SHALLOW LANDSLIDES: A HYDROLOGICAL DISTRIBUTED APPROACH*. BERKELEY, CALIFORNIA, JULY 7, 1998.

2010: INVITED BY THE WATER RESOURCES UNIVERSITY, VIETNAM, FOR A SEMINAR TITLED *WILDFIRE FORCING OF HYDROLOGICAL PROCESSES*. HANOI, VIETNAM, NOVEMBER 20, 2010.

TEACHING ACTIVITIES FOR POSTGRADUATE STUDENTS

ACADEMIC YEAR 2014–2015.....2024-2025

SUSTAINABLE WATER AND FOOD SECURITY

ACADEMIC YEAR 2018–2019.....2020-2021

RESOURCE PLANNING AND MANAGEMENT WITHIN SUSTAINABLE DEVELOPMENT: A FOCUS ON THE WATER, ENERGY, FOOD AND CLIMATE NEXUS

ADVISING AND MENTORING ACTIVITY

6 POSTDOC

20 PH.D. STUDENTS. Three of these received the cum magna laude distinction for their PhD thesis.

70+ M S STUDENTS IN ENVIRONMENTAL ENGINEERING. Three of these theses received the CIRITA award as the best Master's thesis of the year; another thesis was awarded in 2007 with the "City and Security" award as best master thesis of the year and in 2016 another thesis received the prestigious SPE (Society of Petroleum Engineers) mention as the best master thesis of the year in analysing the impact of energy production on water resources.

MENTORING-WOMEN IN SCIENCE; TALENTED GIRLS IN STEM (SCIENCE, TECHNOLOGY, ENGINEERING, AND MATEMATICS)

BIBLIOGRAPHY

MARIA CRISTINA RULLI IS THE AUTHOR OF 160 PUBLICATIONS, 135 OF THEM IN PEER-REVIEWED JOURNALS.

STANFORD/ELSEVIER'S TOP 2% SCIENTIST

NUMBER OF CITATIONS RECORDED BY GOOGLE SCHOLAR

TOTAL CITATIONS: 11472 (As of JULY 2025),

H-INDEX: 58, I10-INDEX: 103

NUMBER OF CITATIONS RECORDED BY SCOPUS

TOTAL CITATIONS: 7863 (As of JULY 2025)

H-INDEX: 50

NUMBER OF CITATIONS RECORDED BY WEB OF SCIENCE

WOS TOTAL CITATIONS: 7059 (As of JULY 2025)

H-INDEX: 46

7 🏆 PAPER ARE HIGHLY CITED (TOP 1% of the academic field)

1 🔥 PAPER IS HOT PAPER (TOP 0.1% of the academic field)

SELECTED PUBLICATIONS

Rulli, M. C., Galli, N., John, R. S., Muylaert, R. L., Santini, M., Hayman, D. T. (2025). Land Use Change and Infectious Disease Emergence. *Reviews of Geophysics*, 63(2), e2022RG000785. <https://doi.org/10.1029/2022RG000785>.

Govoni, C., Zhuo, L., Lobos Marchioni D., Rulli, M.C. (2025), China's animal protein-rich diets are increasingly reliant on Brazil's land and water resources *Nature Food*, in press.

Wolde S.G., D'Odorico P., Rulli M.C (2025). Adapt or Depart: The Nexus between Environmental Migration and Water Deficiency for Food and Livestock Production in Somalia. *Nature Food*, in press.

Galli, N., Nanesha, H., Tolazzi, A., Chiarelli D.D., Rulli M.C. (2025). The AIDA 1 km resolution crop-specific rainfed and irrigated areas and green and blue water demands for Italy. *Scientific Data* 12, 1041 . <https://doi.org/10.1038/s41597-025-05390-1>

Deng, Q., Sharretts, T., Ali, T., Ao, Y.Z., Chiarelli, D.D., Demeke, B., Marston L., Mehta, p., Mekonnen, M., Rulli, M.C., Tuninetti, M., Xie. W., Davis K.F. (2025). Deepening water scarcity in breadbasket nations. *Nature Communications* 16, 1110 (2025). <https://doi.org/10.1038/s41467-025-56022-6>.

Chiriaco, M. V., Galli, N., Latella, M., Rulli, M. C. (2025). Pressure on Global Forests: Implications of Rising Vegetable Oils Consumption Under the EAT-Lancet Diet. *Global Change Biology*, 31(2), e70077. <https://doi.org/10.1111/gcb.70077>.

Curioni, M., Galli, N., Manzolini, G., Rulli, M. C. (2025). Global Land-Water Competition and Synergy Between Solar Energy and Agriculture. *Earth's Future*, 13(2), e2024EF005291. <https://doi.org/10.1029/2024EF005291>

Rulli, M.C., Sardo, M., Ricciardi, L., Govoni, C., Chiarelli, D., Galli, N., Komarek, A., D'Odorico, P. (2024) Meeting the EAT- Lancet 'healthy' diet target while protecting land and water resources. *Nature Sustainability*, <https://doi.org/10.1038/s41893-024-01457-w>.

Posada-Marín, J., Salazar, J., Rulli, M.C., Wang-Erlandsson, L, Jaramillo, F. (2024) Upwind moisture supply increases risk to water security. *Nature Water*. <https://doi.org/10.1038/s44221-024-00291-w>

Yang, Y., Tilman, D., Jin, Z, Smith, P., Barrett, C.B., Zhu, Y-G., Burney, J., D'Odorico, P., Fantke, P., Fargione, J., Finlay, J., Rulli, M.C., Sloat, L., van Groenigen, K.J., West, P.C., Ziska, L., Michalak, A.M., the Clim-Ag Team, Lobell, D.B. (2024) Climate change exacerbates the environmental impacts of agriculture. *Science*, 385, eadn3747.

D'Odorico, P., Dell'Angelo, J., Rulli, M.C. (2024) Water commons grabbing and (in)justice. *Nature Water* 2, 300–302. <https://doi.org/10.1038/s44221-024-00231-8>

Ricciardi, L. P. D'Odorico, M.C. Rulli, (2024) To what extent can agriculture be reshaped to address healthy and sustainable diets by boosting pulse production locally?. *Global Food Security*, 40, 100734. <https://doi.org/10.1016/j.gfs.2023.100734>.

Govoni, C., Chiarelli, D.D., Rulli, M.C. (2024) A global dataset of the national green and blue water footprint of livestock feeds. *Scientific Data* 11, 1419. <https://doi.org/10.1038/s41597-024-04264-2>.

D'Odorico, P., Dell'Angelo, J., & Cristina Rulli, M. (2024). Appropriation pathways of water grabbing. *World Development*, 181, 106650. <https://doi.org/10.1016/j.worlddev.2024.106650>

Govoni, C. P. D'Odorico, L. Pinotti, and M.C. Rulli (2023), Preserving global land and water resources through the replacement of livestock feeds with agricultural by-products. *Nature Food*, 4 (12), 1047-1057. <https://doi.org/10.1038/s43016-023-00884-w>

Dell'Angelo J., Rulli M.C., D'Odorico P. (2023) Will war in Ukraine escalate the global land rush? *Science*, 379 (6634), 752755. <https://www.science.org/doi/10.1126/science.adf9351>.

Wolde S., D'Odorico P., Rulli M.C (2023). Environmental drivers of human migration in Sub-Saharan Africa. *Global Sustainability*, 6, E9. doi:10.1017/sus.2023.5

Sardo M., Epifani I., D'Odorico P., Galli N., Rulli M.C. (2023) Exploring the water–food nexus reveals the interlinkages with urban human conflicts in Central America, *Nature Water*, 22-0477. <https://doi.org/10.1038/s44221-023-000530>.

Galli, N., Chiarelli, D. D., Ricciardi, L., & Rulli, M. C. (2023). A Blue Water Scarcity-Based Method for Hydrologically Sustainable Agricultural Expansion Design. *Water Resources Research*, 59(10), e2023WR034473. <https://doi.org/10.1029/2023WR034473>

Wang, L., Jiao, W., MacBean, N., Rulli M.C., Manzoni S., Vico G., D'Odorico P. (2022) Dryland productivity under a changing climate. *Nature Climate Change* 12, 981–994 (2022). <https://doi.org/10.1038/s41558-022-01499-y>

Galli, N., Dell'Angelo, J., Epifani, I., Rulli M.C. (2022) Socio-hydrological features of armed conflicts in the Lake Chad Basin. *Nature Sustainability* 5, 843–852 (2022). <https://doi.org/10.1038/s41893-022-00936-2>

Chiarelli D.D., D'Odorico P., Müller M.F., Mueller N.D., Davis K.F., Dell'Angelo J., Penny G., Rulli M.C. (2022) Competition for water induced by transnational land acquisitions for agriculture, *Nature Communications*, 13, 505 (2022). <http://dx.doi.org/10.1038/s41467-022-28077-2>.

Tatlhego, M., D.D. Chiarelli, M.C. Rulli, P. D'Odorico (2022). The value generated by irrigation in the command areas of new agricultural dams in Africa, *Agric. Water. Management.*, 264, 107517, doi.org/10.1016/j.agwat.2022.107517.

Ricciardi L., D'Odorico P., Galli N., Chiarelli D.D., Rulli M.C. (2022) Hydrological implications of large-scale adoration in tropical biomes for climate change migration, *Philosophical Transactions of the Royal Society B* 377, 20210391. <http://doi.org/10.1098/rstb.2021.0391>

Muylaert R. L., Kingston T., Luo J., Vancine M.H., Galli N., Carlson C.J., John R.S., Rulli M.C., Hayman D.T. S. (2022) Present and future distribution of bat hosts of sarbecoviruses: implications for conservation and public health, *Proceedings of the Royal Society B* 289, 20220397. <http://doi.org/10.1098/rspb.2022.0397>

Rulli M.C., D'Odorico P., Galli N., Hayman D.T.S. (2021), Land-use change and the livestock revolution increase the risk of zoonotic coronavirus transmission from rhinolophid bats, *Nature Food*, 2(6), 409-416. <https://doi.org/10.1038/s43016021-00285-x>.

Jenkins W., Rosa L., Schmidt J., Band L., Beltran-Peña A., Clarens A., Doney S., Emanuel R.E., Glassie A., Quinn J., Rulli M.C., Shobe W.I., Szeptycki, L., D'Odorico P. (2021) Values-Based Scenarios of Water Security: Rights to Water, Rights of Waters, and Commercial Water Rights, *BioScience*, 71, 11, 1157–1170. <https://doi.org/10.1093/biosci/biab088>

Müller M.F., Penny G., Niles M.T., Ricciardi V., Chiarelli D.D., Davis K.F., Dell'Angelo J., D'Odorico P., Rosa L., Rulli M.C., Mueller N.D. (2021). Impact of transnational land acquisitions on local food security and dietary diversity. *Proceedings of the National Academy of Sciences of the United States of America*, 118(4), e2020535118. <https://doi.org/10.1073/pnas.2020535118>.

Rosa L., Rulli M.C., Ali S., Chiarelli D.D., Dell'Angelo J., Mueller N.D., Scheidel A., Siciliano G., D'Odorico P. (2021), Energy implications of the 21st century agrarian transition, *Nature Communications*, 12(1), 2319. <https://doi.org/10.1038/s41467-021-22581-7>.

Rosa L., Chiarelli D. D., Rulli M. C., Dell'Angelo J., D'Odorico P. (2020). Global agricultural economic water scarcity. *Science Advances*, 6, eaaz6031. <http://dx.doi.org/10.1126/sciadv.aaz6031>.

Chiarelli, D.D., C. Passera, L. Rosa, K. F. Davis, P. D'Odorico, and M. C. Rulli (2020). Global gridded dataset of crop-specific green and blue water requirements, the WATNEEDS model. *Scientific. Data*. 7, 273

D'Odorico P., Chiarelli D.D., Rosa L., Bini A., Zilberman D., Rulli M.C. (2020). The global value of water in agriculture. *Proceedings of the National Academy of Sciences of the United States of America*, 117, 21985-21993. <http://dx.doi.org/10.1073/pnas.2005835117>

Rosa L., Chiarelli D.D., Sangiorgio M., Beltran-Peña A.A., Rulli M.C., D'Odorico P., Fung I. (2020). Potential for sustainable irrigation expansion in a 3 °C warmer climate. *Proceedings of the National Academy of Sciences of the United States of America*, 117. <http://dx.doi.org/29526-29534>, 10.1073/pnas.2017796117.

Davis K. F., Koo H. I., Dell'Angelo J., D'Odorico P., Estes L., Kehoe L. J., Kharratzadeh M., Kuemmerle T., Machava D., Pais A. J. R., Ribeiro N., Rulli M.C., Tatlhego M. (2020). Tropical forest loss enhanced by large-scale land acquisitions. *Nature Geoscience*, 13, 482-488, <http://dx.doi.org/10.1038/s41561-020-0592-3>

- Rulli M.C., Casirati S., Dell'Angelo J., Davis K.F., Passera C., D'Odorico P. (2019), Interdependencies and telecoupling of oil palm expansion at the expense of Indonesian rainforest, *Renewable and Sustainable Energy Reviews*, 105, 499, 512, 21. <http://dx.doi.org/10.1016/j.rser.2018.12.050>.
- Rosa L., Chiarelli D.D., Tu C., Rulli M.C., D'Odorico P. (2019) Global unsustainable virtual water flows in agricultural trade, *Environmental Research Letters*, 14, 11, 114001. <https://doi.org/10.1088/1748-9326/ab4bfc>.
- D'Odorico P., Davis K.F., Rosa L., Carr J.A., Chiarelli D., Dell'Angelo J., Gephart J., MacDonald G.K., Seekell D.A., Suweis S., Rulli M.C. (2018) The Global Food-Energy-Water Nexus, *Review of Geophysics*, 56, 3, 456-531. <http://dx.doi.org/10.1029/2017RG000591>
- Davis K.F., Chiarelli D.D., Rulli M.C., Chhatre A., Richter B., Singh D., Defries R. (2018) Alternative cereals can improve water use and nutrient supply in India, *Science advances* 4 (7), eaao1108. <http://dx.doi.org/10.1126/sciadv.aao1108>
- Rosa L., Rulli M.C., Davis K.F., Chiarelli D.D., Passera C., D'Odorico P. (2018) Closing the yield gap while ensuring water sustainability, *Environmental Research Letters* 13 104002. <http://dx.doi.org/10.1088/1748-9326/aadeef>
- Rosa, L., Rulli, M.C., Davis, K. F., D'Odorico, P. (2018). The water-energy nexus of hydraulic fracturing: A global hydrologic analysis for shale oil and gas extraction. *Earth's Future*, 6, 745–756. <https://doi.org/10.1002/2018EF000809>.
- Dell'Angelo, J., P. D'Odorico, Rulli, M.C. (2018). The Global Water Grab Syndrome, *Ecological Economics*, 143, 276-285.
- Davis K.F., Rulli M.C., Seveso A., D'Odorico P. (2017) Increased food production and reduced water use through optimized crop distribution, *Nature Geoscience* 10 (12), 919-924. <https://doi.org/10.1038/s41561-017-0004-5>
- D'Odorico P., Rulli, M.C., Dell'Angelo J., Davis K.F., (2017): New frontiers of land and water Commodian: socioenvironmental controversies of large-scale land acquisitions, *Land Degradation and Development*, 28, 7, 2234-2244. <http://dx.doi.org/10.1002/ldr.2750>.
- Rosa L., Davis k.F., Rulli M.C., D'Odorico P. (2017) Environmental consequences of oil production from oil sands, *Earth's Future*, 5, 158–170. <http://dx.doi.org/10.1002/2016EF000484>.
- Rulli M.C., Sanni M., Hayman D.T.S., D'Odorico P. (2017) The nexus between forest fragmentation in Africa and Ebola virus disease outbreaks. *Scientific Reports* 7: 41613. <http://dx.doi.org/10.1038/srep41613>.
- Dell'Angelo J., D'Odorico P., Rulli M.C., Marchand P. (2016) The Tragedy of the Grabbed Commons: Coercion and Dispossession in the Global Land Rush. *World Development*, 92, 1-12, <http://dx.doi.org/10.1016/j.worlddev.2016.11.005>.
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