

**CLAUDIA RINGLER**  
Deputy Division Director  
Environment and Production Technology Division  
International Food Policy Research Institute  
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## EDUCATION

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- 1998 -2001*                    **PhD in Agricultural Economics**  
Center for Development Research (ZEF), Bonn University, Germany  
Dissertation: *Optimal Allocation and Use of Water Resources in the Mekong River Basin: Multi-Country and Intersectoral Analyses* [Completion with summa cum laude]
- Aug 95 - May 96*            **M.A. International and Development Economics**  
Yale University, USA
- June 1995*                    **B.A. in European Business Studies**  
*Oct/93 – June/95*          Universidad Pontificia Comillas, ICADE, Madrid, Spain  
*Oct/91 – June/93:*        Fachhochschule für Technik und Wirtschaft, Reutlingen, Germany [Top graduate in Spanish-English program]  
Thesis: *Evaluation and sustainability of technical development projects. Comparative study between AECI and GTZ* (in Spanish)

## RESEARCH AND PROFESSIONAL EXPERIENCE

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### Summary:

- Since 05/2015                Deputy Division Director and Natural Resources Theme Lead, Environment and Production Technology Division (EPTD), International Food Policy Research Institute (IFPRI); Flagship co-lead, Managing Resource Variability, Risks and Competing Uses for Resilience (VCR), CGIAR Research Program on Water, Land and Ecosystems (WLE)
- 2011-2015                    Deputy Division Director, EPTD, IFPRI; since 2012 CGIAR WLE flagship co-lead
- 2007-2011:                   Senior Research Fellow, EPTD, IFPRI
- 2004-2006:                   Research Fellow, EPTD, IFPRI; (Co-)Theme 5 leader, Challenge Program on Water and Food; Co-team leader of IFPRI's Water Research Program
- 2000 – 2002:                Postdoctoral Research Fellow, IFPRI, outposted at Sub-Institute for Water Res. Planning, Ho Chi Minh City, Viet Nam
- 1998 – 2000:                Junior Fellow, Center for Development Research (ZEF), Bonn, Germany, short-term posting at the Mekong River Commission

1997 – 2001: Research Analyst, IFPRI  
 1996 – 1997: Senior Research Assistant, IFPRI

*Since 05/2015*

**Deputy Division Director and Natural Resource Management Theme Lead, IFPRI, Environment and Production Technology Division, Washington, DC**

- Help manage divisional budgets, act upon staff concerns and represent division in Senior Management Team meetings
- Management of division-level papers
- Coordination of Natural Resource Management Theme within the division
- Co-theme leader, Flagship on Managing Resource Variability and Competing Uses of the CGIAR Research Program on Water, Land and Ecosystems
- Scientific Steering Committee, Global Water Systems Project
- Chair, Food, Energy, Environment and Water Network
- Water Security Task Force, Global Water Partnership
- Advisory Council, Sustainable Water Use, Forum for Food and Aquaculture
- International Advisory Council, UNU-INWEH
- Chair, Food, Energy, Environment and Water Network (FE<sup>2</sup>W)
- Water Security Task Force, Global Water Partnership

*Since 08/2011*

**Deputy Division Director, IFPRI, Environment and Production Technology Division, Washington, DC**

- Help manage divisional budgets, act upon staff concerns and represent division in Senior Management Team meetings
- Management of division-level papers
- Co-theme leader, Strategic Research Program on Basins of the CGIAR Research Program on Water, Land and Ecosystems
- Scientific Steering Committee, Global Water Systems Project
- Water Security Task Force, Global Water Partnership
- IFPRI lead on collaborative grant led by Texas A&M on Innovation Laboratory on Small Scale Irrigation (ILSSI) (2013-2023)
- Lead PI on Water-Energy-Food nexus in the Eastern Nile Basin (2015-2018)
- Lead PI on NERC ESPA, Ecosystems Services and Poverty Alleviation project on Smart subsidies for catchment conservation in Malawi (2013-2016)
- Lead PI on Generic agent-based modelling system for complex ecosystem analysis in WLE focal regions (2015-2016)
- Lead PI on Energy use in agriculture: Irrigation, mechanization or fertilizer? Tradeoffs and food security implications (2013-2015)
- Lead IFPRI component on US NSF (Belmont Forum) project on Southern Africa's hydro-economy and water security (2014-2016)
- Lead PI, Reaching Smallholder Women with Information Services and Resilience Strategies to Respond to Climate Change (2019-2021)

**2007-2011****Senior Research Fellow, IFPRI, Environment and Production Technology Division, Washington, DC**

- As Co-Team Leader of IFPRI's Water Research Program, implementation of IFPRI's new Research Strategy; with a focus on water quality and global change research: Development of program documents; liaising with donors and development of networks of collaborators
- As IFPRI's representative in the Challenge Program on Water and Food (CPWF), liaising with CGIAR centers and other members of the Challenge Program, and implementation of the Theme 5 research program on the Global and National Food and Water System [until 9/2006 and co-Theme leader since 3/2007 through 12/2008]
- Contribution to the development of the CGIAR Challenge Program on Climate Change
- Organization on conferences on adaptation to climate change in Ethiopia and South Africa
- Program management—focusing on water, water quality, and climate change; fund raising, synthesis research—and research implementation, leadership of several projects [titles of selected projects are listed below]
  - Project coordinator: Enhancing Women's Assets to Manage Risk under Climate Change: Potential for Group-Based Approaches [2011-2013]
  - Project leader: USAID South and Southeast Asia Climate Change Impacts and Technology Options [2010-2011]
  - Project coordinator: Indonesia Climate Change and Agricultural Productivity Impacts [2009-2011]
  - Project leader: Kenya adaptation to climate change project [2010-2011]
  - Project leader: Yellow River Basin Focal Project, China [2008-2010]
  - Project collaborator, Strategies for Adapting to Climate Change in Rural Sub-Saharan Africa: Targeting the Most Vulnerable [2007-2011]
  - Project collaborator: Agricultural water management strategies for Sub-Saharan Africa and South Asia, Gates Foundation [2008-2012]
  - Project collaborator: Africa Infrastructure Country Diagnostic (AICD). Irrigation potential assessment, World Bank [2009-2010]
  - Resource Person, EU-funded climate change cost study
- Publications in the areas water management at the basin level, global food and water security, natural resource constraints to global food production, and adaptation to climate change

**2004-2007****Research Fellow, IFPRI, Environment and Production Technology Division, Washington, DC**

- Program management—focusing on water, water quality, and climate change; fund raising, synthesis research—and research implementation, leadership of several projects [titles of selected projects are listed below]
  - Project leader, German-funded large-scale Climate Change Adaptation Project: Ethiopia, South Africa, and rural Africa
  - Project leader: Chile Rural Water Quality Management project
  - Project leader: Potential of River Basin Organizations for India

- Project coordinator: Agriculture and Rural Development Strategy Study for Indonesia
- Project collaborator, Ex-ante Impact Assessment for the CPWF
- Project collaborator, European Agriculture to 2020
- Coordinating role, lead author, and collaborator, international assessments related to agriculture and food:
  - Scenario Working Group, International Assessment of Agricultural Science and Technology for Development (IAASTD)
  - Lead author in the Scenarios Working Group of the Millennium Ecosystem Assessment
  - Involved in the GEO-4 (UNEP) State of the Environment Assessment
- Outreach of IFPRI's water and food projections research in national, regional, and international fora, participating in approximately 5 conferences annually
- Organization of conferences, symposia, and meetings:
  - Organized international conference on “Globalization and Trade: Implications for Water and Food Security [2005]
  - Organizes approximately 2-4 symposia annually

#### ***July 2004***

**Short-term Consultancy, Black and Veatch, HCMC, Viet Nam** for the sub-project “Implementation of Information, Technology and Research (ITR) Strategy” in the Dong Nai River Basin, Viet Nam

- Supervision of modeling exercises, database development, and model adaptations for the ongoing “Capacity Building for Water Resources Management Project.”

#### ***June 2003-March 2004***

**Outposted Expert in Indonesia and (Postdoctoral) Research Fellow, IFPRI**, at CASER (now ICASEPS), Bogor, Indonesia.

Technical Coordinator for the *Agriculture and Rural Development Strategy Study* for the Ministry of Agriculture in Indonesia

- Liaison with partners and collaborators at the Ministry of Agriculture and the Center for Agro-Socioeconomic Research in Bogor, Indonesia.
- Coordination of domestic and international consultants
- Write-up of several chapters of the Strategy Study, including Sources of Agricultural Growth, Aquaculture Case Study, and Trends and Projections for Food Supply and Demand.

#### ***August 2002-June 2003***

**Postdoctoral Research Fellow, IFPRI**, Washington D.C.

- Completion of river basin analysis and strategies for enhanced food security and farm incomes for the Mekong Delta and Dong Nai basin
- Development of research for the Mekong River Basin together with the MRC
- Organization of International Workshop on Water Rights in Hanoi, Vietnam

***July 2000-August 2002***

**Outposted Expert in Vietnam and Postdoctoral Research Fellow, IFPRI, Ho Chi Minh City, Viet Nam**

Team leader for the Vietnam component of the multi-year research project “Irrigation Investment, Fiscal Policy, and Water Resource Allocation in Indonesia and Viet Nam.”

- Liaison with partners and collaborators at the Vietnamese Ministry of Agriculture and Rural Development and the Sub-Institute for Water Resources Planning
- Supervised the design, collection, analysis and interpretation of primary (field) and secondary meteorologic, hydrologic, and agro-economic data
- Carried out a major and two smaller farm household surveys in southern Vietnam
- Developed a state-of-the-art integrated economic-hydrologic model of the Dong Nai River Basin, Southern Vietnam; and utilized the model to evaluate water resources allocation and investment policy scenarios
- Contributed to a report on river basin institutions for the Dong Nai River Basin and to a report on the implications of agricultural taxation and investments on irrigation
- Trained collaborators in mathematical modeling techniques and data analysis methods
- Prepared project documentation and publications
- Presented project results at several national and international workshops and conferences.

***Sep. 2000-Dec. 2002***

**Principal Researcher** in the IFPRI-IWMI project “Economic Value of Water in the Mekong Delta, Vietnam, Under Alternative Mekong River Flow Regimes,” carried out in collaboration with the Sub-Institute for Water Resources Planning, Vietnam.

- Development of an economic framework for the valuation of water uses in the Mekong Delta that takes account of and quantifies the multiple uses of water, assists in conceptualizing the efficient regional management of this international resource; and clarifies the effects of transboundary management options on the Mekong Delta in Vietnam.

***Sep. 2001***

**Short-term Consultancy, Center for Development Research (ZEF), Bonn, Germany** for “GLOWA project in the Volta River Basin, Ghana” in Ghana

- Data collection and modeling assistance for “Optimal Allocation of Water Resources in the Volta River Basin” (Supervision of doctoral student).

***January 1998 - June 2000***

**Junior Research Fellow and Doctoral Student, ZEF, Bonn, Germany**

- Theory and fieldwork in Cambodia for dissertation titled “Optimal Allocation and Use of Water Resources in the Mekong River Basin: Multi-Country and Intersectoral Analyses”

***June 1996 –December 2000***

**Senior Research Assistant and Research Analyst, IFPRI, Washington, D.C.**

*Water Resource Allocation at the Basin Level*

- Collection, review, and synthesis of scientific literature on modeling of water allocation at the river basin level and contribution to IWMI research report on this topic

- Contribution to the establishment of model design and structure, model validation and baseline results of an integrated hydrologic-economic-institutional river basin model for the Maipo River Basin in Chile within an interdisciplinary research team, with focus on agricultural production functions and combined municipal & industrial demand functions
- Contribution to disaggregation of municipal and industrial demand function and extension of the agricultural production functions to include labor and agricultural chemicals as decision variables in addition to land, water and irrigation technology.

#### *Transferring Water out of Agriculture*

- Literature review and synthesis of the available evidence of the effects of water transfers from agricultural to urban and industrial areas on local and regional rural economies

#### *Water Allocation in the Mekong River Basin*

- Outposted at the Mekong River Commission Secretariat (MRCS), Phnom Penh, Cambodia, Feb-April 1999, under a research project of the Center for Development Research, Bonn University
- Participation in preparatory activities for the plan and process of a Basin Development Plan for the Sustainable Development of the Mekong River Basin
- Meetings with various line ministries and agencies on Basin Development Plan activities
- Contribution to various other MRCS activities and studies
- Drafting of final report and submission of ZEF Discussion Paper on Development Policy
- Successful finalization of dissertation on this topic

#### *Investment in Irrigation Indicators in Latin America and the Caribbean*

- Survey of organizations in Latin America and the Caribbean on indicators for investment in irrigation and water resources
- Collection, review, and synthesis of scientific literature on water resources and irrigation in the region
- Responsible for final report on findings of survey and literature reviews
- Responsible for series of Country Briefs on Irrigation and Water Resources in Latin America and the Caribbean.

#### *Global Trends in Food Supply and Demand*

- Updated IFPRI's International Model for Policy Analysis of Agricultural Commodities and Trade from base year of 1992-94 to 1994-96
- Contribution to scenario analysis for a wide range of issues, including the future of root and tuber crops, livestock supply and demand, to the potential effects of a rapid increase in environmental degradation in China

#### *Water Scarcity and Global Food Security*

- Data collection and other assistance to establish a database for water availability and use
- Co-author in paper for the first phase for the World Commission on Water for the 21<sup>st</sup> Century

#### *Other Activities*

- Assistance in grant proposal writing at IFPRI and at the Center for Development Research

(ZEF), Germany

- Presentation of Water Research Team results at various meetings, including the Scenario Development Panel of the World Commission on Water for the 21<sup>st</sup> Century, International Water and Resource Economics Consortium, the International Water Congress at Bonn, and the World Futures Society conference
- Participation in a variety of other meetings and conferences related to irrigation management and the water sector

**March 1996**

**Intern, TRICKLE UP PROGRAM, New York**

- Creation of database for evaluation of program activities
- Assistance in evaluation of performance of small businesses in several developing countries

**July/95 - Aug/95**

**Intern, GTZ GmbH, Frankfurt a.m., Germany, Quality Assurance Department**

- Assistance in database creation and management of survey results for the internal evaluation of GTZ technical development projects
- Drafting of short papers on evaluation, impact monitoring, and sustainability in technical development projects

**June/92 - Dec/92**

**Intern, ALCATEL SEL AG, Transportation Division, Stuttgart, Germany, and Madrid, Spain**

- Assistance in system planning and project controlling for high-speed train projects in Spain and Portugal

**July/93 - Aug/93**

**Volunteer Work, SAN GABRIEL, Lima, Peru**

- Assistance in administration of social services for poor urban area

**OTHER SKILLS**

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**Languages:**

German: native speaker  
 English: fluent  
 Spanish: fluent  
 French: good

**Computing, Technical:**

Programming: GAMS  
 Statistical: STATA  
 GIS: ArcView (basic)  
 General: MS Office  
 Field methods: Carried out several farm household surveys  
 Conferences: Organized several conferences

**Professional Associations:**

International Water Resource Association (IWRA)

International Agricultural Economics Association (IAAE)

**Awards and Fellowships:**

- Agricultural Economics Association of South Africa Award for best publication in a professional journal ("Perception of and Adaptation to Climate Change by Farmers in the Nile Basin of Ethiopia" by Deressa, T.T., R.M. Hassan, and C. Ringler) (2011)
- Zayed International Prize for the Environment, to all Millennium Ecosystem Assessment authors (2005)
- German Developing Country Prize for Best Dissertation (2004)
- DAAD (German Academic Exchange Service) Scholarship for MA program at Yale (1995)
- ERASMUS Scholarship for BA program (1993)

**PUBLICATIONS**

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**JOURNAL ARTICLES**

- [J110] Hinz, R., T.B. Sulser, R. Huefner, D. Mason-D’Croz, S. Dunston, S. Nautiyal, **C. Ringler**, J. Schuengel, P. Tikhile, F. Wimmer and R. Schaldach. Agricultural Development and Land-Use Change in India: A Scenario Analysis of Trade-Offs Between UN Sustainable Development Goals (SDGs) [Earth’s Future](#). Available online.
- [J109] Grafton et al. (including **C. Ringler**). 2019. Realizing resilience for decision making. *Nature Sustainability* 2 (October): 907–913.
- [J108] Tallis, H., K. Kreis, L. Olander, **C. Ringler** et al. 2019. Aligning Evidence Generation and Use Across Health, Development and Environment. [Current Opinion in Environmental Sustainability \(COSUST\)](#) 39:81–93.
- [J107] McCartney, M., L. Whiting, I. Makin, B. Lankford and **C. Ringler**. 2019. Rethinking irrigation modernization: realizing multiple objectives through the integration of fisheries. [Marine and Freshwater Research](#) 70: 1–10.
- [J106] Gebrehiwot, K., A.H. Mondal, **C. Ringler**, and A. Getaneh-Gebremeskel. 2019. Optimization and cost-benefit assessment of hybrid power systems for off-grid rural electrification in Ethiopia. [Energy](#). 177(15): 234-246.
- [J105] Lefore, N., M. Giordano, **C. Ringler** and J. Barron. 2019. Sustainable and equitable growth in farmer-led irrigation in sub-Saharan Africa: What will it take? [Water Alternatives](#) (12)1: 156-168.
- [J104] Mondal, A.H., **C. Ringler**, P. Al-Riffai, H. Eldidi, C. Breisinger, and M. Wiebelt. 2019. Long-Term Optimization of Egypt's Power Sector: Policy Implications. [Energy](#). 166(1): 1063-1073.
- [J103] Zhu, T., **C. Ringler** and M.W. Rosegrant. 2019. Viewing Agricultural Water Management through a Systems Analysis Lens. [Water Resources Research](#) 55(3): 1778-1791.
- [J102] Xie, H., N. Perez, **C. Ringler**, W. Anderson and L. You. 2018. Can Sub-Saharan Africa feed itself? The role of irrigation development in the region’s drylands for food security. [Water International](#) 43(6): 796-814.
- [J101] Yang, J., Y.C.E. Yang, H.F. Khan, H. Xie, **C. Ringler**, A. Ogilvie, O. Seidou, A.G. Djibo,



- F. van Weert and R. Tharmer. 2018. Quantifying the Sustainability of Water Availability for the Water-Food-Energy-Ecosystem Nexus in the Niger River Basin. *Earth's Future* 6(9): 1292-1310.
- [J100] Grafton, R.Q., J. Williams, C.J. Perry, F. Molle, **C. Ringler**, P. Steduto, B. Udall, S. Wheeler, Y. Wang, D. Garrick and R.G. Allen. 2018. The Paradox of Irrigation Efficiency. *Science* 361 (6404): 748-750.
- [J99] Passarelli, S., D. Mekonnen, E. Bryan and **C. Ringler**. 2018. Evaluating the pathways from small-scale irrigation to dietary diversity: Evidence from Ethiopia and Tanzania. *Food Security* 10(4): 981–997.
- [J98] Bekchanov, M., **C. Ringler** and A. Bhaduri. 2018. A water rights trading approach to increasing inflows to the Aral Sea. *Land Degradation and Development* 29(4): 952-961.
- [J97] Bryan, E., Q. Bernier, M. Espinal and **C. Ringler**. 2018. Making climate change adaptation programmes in sub-Saharan Africa more gender responsive: insights from implementing organizations on the barriers and opportunities. *Climate and Development* 10(5): 417-431.
- [J96] Bryan, E., A. Bell, **C. Ringler**, and A. Ahmed. 2018. Increasing Crop Production Benefits to Small Producers in Bangladesh. *Asian Journal of Agriculture and Development* 15(1): 1-21.
- [J95] Wyrwoll, P.R., R. Quentin Grafton, K.A. Daniell, H.L. Chu, **C. Ringler**, T.H. Le, D.K. Khoi, T.N. Do and D.A.T. Nguyen. 2018. Decision-Making for Systemic Water Risks: Insights from a Participatory Risk Assessment Process in Vietnam. *Earth's Future*. 6(3): 543-564.
- [J94] Mondal, Md. A.H., E. Bryan, **C. Ringler**, D. Mekonnen and M. Rosegrant. 2018. Ethiopian energy status and demand scenarios: Prospects to improve energy efficiency and mitigate GHG emissions. *Energy* 149: 161-172.
- [J93] Yang, Y.C.E., S. Passarelli, R.J. Lovell and **C. Ringler**. Gendered perspectives of ecosystem services: a systematic review. 2018. *Ecosystem Services*. Volume 31, Part A, June: pp 58-67
- [J92] Mondal, Md. A.H., M. Rosegrant, **C. Ringler**, A. Pradesha and R. Valmonte-Santos. 2018. The Philippines Energy Future and Low-Carbon Development Strategies. *Energy*. 147: 142-154.
- [J91] Zhang, X., H-Y Li, Z.D. Deng, **C. Ringler**, Y. Gao, M. Hejazi and L.R. Leung. 2018. Impacts of climate change, policy and Water-Energy-Food nexus on hydropower development. *Renewable Energy* 116(Part A): 827-834.
- [J90] Khan, H. F., Yang, Y.-C. E., Xie, H., and **C. Ringler**. 2017. A Coupled Modeling Framework for Sustainable Watershed Management in Transboundary River Basins, *Hydrol. Earth Syst. Sci.*, 21, 6275-6288.
- [J89] McCarl, B.A., Y. Yang, K. Schwabe, B.A. Engel, A.H. Mondal, **C. Ringler** and E.N. Pistikopoulos. 2017. Model use of WEF nexus analysis: a review of issues. *Current Sustainable Renewable Energy Reports* 4(3): 144–152.
- [J88] Rosegrant, M.W. and **C. Ringler**. 2017. Why we urgently need water policy reforms. *Georgetown Journal of International Affairs*. Published online. October 27, 2017.
- [J87] Xie, H. and **C. Ringler**. 2017. Agricultural nutrient loadings to the freshwater environment: The role of climate change and socioeconomic change. *Environ. Res. Lett.* 12 104008
- [J86] Kristjanson, P., E. Bryan, Q. Bernier, J. Twyman, R. Meinzen-Dick, C. Kieran, **C. Ringler**, C. Jost and C. Doss. 2017. Addressing gender in agricultural research for

- development in the face of a changing climate: Where are we and where should we be going? *International Journal of Agricultural Sustainability* 15(5): 482-500.
- [J85] Mekonnen, D., E. Bryan, T. Alemu and **C. Ringler**. 2017. Food versus Fuel: Examining Tradeoffs in the Allocation of Biomass Energy Sources to Domestic and Productive Uses in Ethiopia. *Agricultural Economics*. 48(4): 425-435. doi:10.1111/agec.12344.
- [J84] Khan, H.F., Y.C.E. Yang, **C. Ringler**, S. Wi, M.J.M Cheema and M. Basharat. Guiding Groundwater Policy in the Indus Basin of Pakistan Using a Physically Based Groundwater Model. *Journal of Water Resources Planning and Management*. Vol 143, issue 2-3.
- [J83] Tang, Y., M. Hooshyar, T. Zhu, **C. Ringler**, A.Y. Sun, D. Long and D. Wang. 2017. Reconstructing annual groundwater storage changes in a large-scale irrigation region using GRACE data and Budyko model. *Journal of Hydrology* 551 (2017) 397–406.
- [J82] Zeng, R., X. Cai, **C. Ringler** and T. Zhu. 2017. Hydropower versus Irrigation – An Analysis of Global Patterns. 2017. *Environmental Research Letters* 12 (2017) 034006
- [J81] Mondal, Md. A.H., E. Bryan, **C. Ringler**, and M. Rosegrant. 2017. Ethiopian power sector development: Renewable based universal electricity access and export strategies. *Renewable & Sustainable Energy Reviews* 75:11-20.
- [J80] Gallagher, L., Dalton, J. Bréthaut, C., Allan, T., Bellfield H., Crilly, D., Cross, K. Gyawali, D., Lainé, S., LeFlaive, X., Li, L., Lipponen, A., Matthews, N., Orr, S., Pittock, J., **Ringler**, C., Smith, M., Klein, D., Tickner, D., von Schlippenbach, U., Vuille, F. 2016. The critical role of risk in setting directions for water, food and energy policy and research. *Current Opinion in Environmental Sustainability* 23:12–16.
- [J79] Grafton, R.Q. M. McLindin, K. Hussey, P. Wyrwoll, D. Wichelns, **C. Ringler**, D. Garrick, J. Pittock, S. Wheeler, S. Orr, N. Matthews, E. Ansink, A. Aureli, D. Connell, L. De Stefano, K. Dowsley, S. Farolfi, J. Hall, P. Katic, B. Lankford, H. Leckie, M. McCartney, H. Polner, N. Ratna, M.H. Rubarenzya, S.N.S. Raiman, K. Wheeler and J. Williams. 2016. Responding to Global Challenges in Food, Energy, Environment and Water: Risks and Options Assessment for Decision-Making. *Asia & the Pacific Policy Studies* (3)2: 275-299.
- [J78] Yang, Y-C. Ethan, **C. Ringler**, C. Brown, A. Mondal. 2016. Modeling the Agricultural Water-Energy-Food Nexus in the Indus River Basin of Pakistan. *Journal of Water Resources Planning and Management* 142(12) 04016062.
- [J77] Ge, H., X. Cai, T. Zhu, and **C. Ringler**. 2016. Drought frequency change: An assessment in northern India plains. *Agricultural Water Management* 176: 111-121.
- [J76] Bekchanov, M., **C. Ringler**, A. Bhaduri and M. Jeuland. 2016. Optimizing Irrigation Efficiency Improvements in the Aral Sea Basin. *Water Resources and Economics* 30: 30-45.
- [J75] Bernier, Q., S. Parvin, A. Bell and **C. Ringler**. 2016. Water management and livelihood choices in Southwestern Bangladesh. *Journal of Rural Studies* 45 (June): 134–145.
- [J74] **Ringler**, C., D. Willenbockel, N. Perez, M. Rosegrant, T. Zhu and N. Matthews. 2016. Global linkages among energy, food and water: an economic assessment. *Journal of Environmental Studies and Sciences*: 6(1): 161-171.
- [J73] Mekonnen, D. A. Siddiqui and **C. Ringler**. 2016. Drivers of groundwater use and technical efficiency of groundwater, canal water, and conjunctive use in Pakistan’s Indus Basin Irrigation system. *International Journal of Water Resources Development*. 32(3): 459-476

- [J72] Wada, Y., M. Flörke, N. Hanasaki, S. Eisner, G. Fischer, S. Tramberend, Y. Satoh, M.T.H. van Vliet, P. Yillia, **C. Ringler**, P. Burek, and D. Wiberg, 2016. Modeling global water use for the 21st century: the Water Futures and Solutions (WFaS) initiative and its approaches, *Geosci. Model Dev*, 9: 175-222.
- [J71] **Ringler, C.** and M. Ebrahim. 2015. Climate change and water: What can economics tell us? *Water Economics and Policy* 1(3): 1571002.
- [J70] Mekonnen, D., H. Channa and **C. Ringler**. 2015. The impact of water users' associations on the productivity of irrigated agriculture in Pakistani Punjab. *Water International* 40(5-6): 733 - 747. Special Issue: Sustainability in the water-energy-food nexus
- [J69] Bhaduri, A., **C. Ringler**, I. Dombrowski, R. Mohtar and W. Scheumann. 2015. Sustainability in the water-energy-food nexus. *Water International* 40 (5-6): 723-732.
- [J68] Conway, D., E. Archer van Garderen, D. Deryng, S. Dorling, T. Krueger, W. Landman, B. Lankford, K. Lebek, T. Osborn, **C. Ringler**, J. Thurlow, T. Zhu and C. Dalin. 2015. Climate and southern Africa's water-energy-food nexus. *Nature Climate Change* 5(9): 837-846.
- [J67] Bell, A. R., E. Bryan, **C. Ringler**, A. Ahmad. 2015. Rice Productivity in Bangladesh: What are the benefits of irrigation? *Land Use Policy* 48 (November): 1–12.
- [J66] Bekchanov, M., **C. Ringler**, A. Bhaduri and M. Jeuland. 2015. How does the Rogun Dam affect water and energy scarcity in Central Asia? *Water International* 40:5-6, 856-876.
- [J65] Davtalab, R., D. Wang, T. Zhu and **C. Ringler**. 2015. Paleo precipitation Reconstruction in the Indus and Ganges Basins by Inverse Modeling of Tree-ring-based PDSI. *Journal of Hydrometeorology* 16(3): 1372-1386.
- [J64] Bell, A. R., M. A. A. Shah, A. Anwar, and **C. Ringler**. 2015. What role can information play in improved equity in Pakistan's irrigation system? Evidence from an experimental game in Punjab. *Ecology and Society* 20(1): 51.
- [J63] Flachsbarth, I., B. Willaarts, H. Xie, G. Pitois, N.D. Mueller, **C. Ringler** and A. Garrido. 2015. The Role of Latin America's Land and Water Resources for Global Food Security: Environmental Trade-Offs of Future Food Production Pathways. *PLoS ONE* 10(1): e0116733. <https://doi.org/10.1371/journal.pone.0116733>
- [J62] Bekchanov, M., A. Bhaduri and **C. Ringler**. 2015. Potential gains from water rights trading in the Aral Sea Basin. *Agricultural Water Management* 152:41-56.
- [J61] **Ringler, C.** and T. Zhu. 2015. Water resources and food security. *Journal of Agronomy*. 106:1–6.
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- [R15] Zhu, T., **C. Ringler** and M. Rosegrant. 2008. *OECD agriculture’s use of water: Projections to 2030*, OECD consultant’s report prepared by the Environment and Production Technology Division, International Food Policy Research Institute, Washington, D.C., United States, COM/TAD/CA/ENV/EPOC/RD(2008)13.
- [R14] Bouman, B, S. Cook, B. Douthwaite, **C. Ringler**, J. Rubiano, and T. Zhu. June 2007. “Impact Potential of the “Temperate and Tropical Aerobic Rice (STAR) in Asia”. Internal document prepared by the CPWF Impact Project for the External Review team.
- [R13] Rosegrant, M.W., **C. Ringler**, T.B. Sulser, R. Valmonte-Santos, T. Zhu, and S. Wood. 2007. *The situation facing agriculture across Asia: challenges and opportunities*. Mimeo. Presented at the Asian Development Bank. Manila. August 9.

- [R12] Rosegrant, M.W., S. Msangi, T. Sulser, and **C. Ringler**. 2006. Future Scenarios for Agriculture: Plausible Futures to 2030 and Key Trends in Agricultural Growth. Background Paper to World Development Report 2008.
- [R11] **Ringler, C.**, M.W. Rosegrant, X. Cai, and S. Cline. 2006. Ensuring agricultural water supplies in a world of competing demand. Paper prepared for the 2006 IFA Agriculture Conference on “Optimizing Resource Use Efficiency for Sustainable Intensification of Agriculture.” Mimeo.
- [R10] **Ringler, C.** 2006. Global Food, Feed, Fiber and Bioenergy Demand Prospects: Implications for Natural Resources – Drawing on the Millennium Ecosystem Assessment. Paper prepared for the 2006 IFA Agriculture Conference on “Optimizing Resource Use Efficiency for Sustainable Intensification of Agriculture.” Mimeo.
- [R9] **Ringler, C.**, M. Rosegrant, J. Roumasset, and S. Ponkijvorasin. 2006. Charge-Subsidy Mechanism for Irrigation Pricing in Developing Countries. Mimeo.
- [R8] Cline, S.A., **C. Ringler**, P. Jawahar, H. Heyd, R. Valmonte-Santos. 2006. Review and Synthesis of Water Quality Policies in Developing Countries. Mimeo.
- [R7] **Ringler, C.**, A. Leon, E. Parra, T. Sulser, T. Zhu, and S. Cline. 2006. Enhancing Rural Water Security through Improved Water Quality Management in the Maipo River Basin. Submitted to Alcoa Foundation.
- [R6] ADB. 2006. *Indonesia. Strategic vision for agriculture and rural development*. Manila: ADB [coordinated by **C. Ringler**, together with ~10 co-authors] <http://www.adb.org/sites/default/files/pub/2006/Strategic-Vision-Indonesia.pdf>.
- [R5] Rosegrant, M.W., T.B. Sulser, **C. Ringler**, S.A. Cline and S. Msangi. 2008. [International Model for Policy Analysis of Agricultural Commodities and Trade \(IMPACT\): Distributed Version 1.0](#). Washington, D.C.: IFPRI.
- [R4] SEARCA/IFPRI/CRESCENT. 2003. Pro-poor Agricultural and Rural Development in Indonesia. Public Policies, Investment, and Governance. Laguna, Philippines: SEARCA. [coordinated by **C. Ringler**].
- [R3] Amisigo, B., T. Berger, M. Iskandarani, W. Laube, J. Liebe, O. Müller, P. Obeng-Asiedu, Y. Osei-Asare, **C. Ringler**, N. van de Giesen, A. van Edig, C. van der Schaaf. 2002. Optimizing Water Use for Future Supply and Demand. *Status Report. GLOWA Volta Project*. Water Use Cluster. Project ID: 07 GWK 01.
- [R2] Rosegrant, M.W. and **C. Ringler**. 1999. *World Water Vision scenarios: Consequences for food supply, demand, trade, and food security: Results from the IMPACT implementation of the World Water Vision Scenarios*. Prepared for the Scenario Development Panel of the World Commission on Water for the 21<sup>st</sup> Century.
- [R1] Global food markets and US exports in the twenty-first century, by M. W. Rosegrant, M. A. Sombilla, R.V. Gerpacio, and **C. Ringler**. Paper presented at the Illinois World Food and Sustainable Agriculture Program Conference "Meeting the Demand for Food in the 21st Century: Challenges and Opportunities for Illinois Agriculture," May 28, 1997, Urbana-Champaign.

## WHITE PAPERS AND POPULAR PIECES

- [W13] Goldstein J., H. Tallis, N. Linou, R. Small, S. Huikuri, K. Kreis, L. Olander, **C. Ringler**, C. Jacobs, M. Kelso, S. Mason and S. Zobrist. 2019. [Bigger Change Faster: Integrated Development, Health, and Environment Actions for a Sustainable Future](#). The Bridge Collaborative and UNDP.

- [W12] **Ringler, C.** [Can Sub-Saharan Africa Feed Itself? A New Entry Point to An Old Question.](#) February 11, 2019.
- [W11] Tallis et al. (including **C. Ringler**). 2017. A Call to Action for Health, Environment, and Development Leaders. [A Report by the Bridge Collaborative.](#) Washington DC: The Nature Conservancy.
- [W10] Tallis H, K. Kreis, L. Olander and **C. Ringler** et al. 2017. [Bridge Collaborative Practitioner’s Guide](#): Principles and Guidance for Cross-sector Action Planning and Evidence Evaluation. Washington DC: The Nature Conservancy.
- [W9] Bekchanov, M., **C. Ringler** and M. Mueller. 2015. [Ecosystem services in the water-energy-food nexus](#). *Change and Adaptation in Socio-Ecological Systems*,2(1):103-105.
- [W8] IFPRI and Veolia. 2015. The murky future of global water quality. New global study projects rapid deterioration in water quality. <https://www.ifpri.org/publication/murky-future-global-water-quality-new-global-study-projects-rapid-deterioration-water>
- [W7] UNU-IHDP. 2014. Land, Water, and People From Cascading Effects to Integrated Flood and Drought Responses. Summary for Decision-Makers. Bonn: UNU-IHDP
- [W6] IFPRI and Veolia. 2011. Finding the Blue Path for a Sustainable Economy-White Paper. <http://www.veolianorthamerica.com/sites/g/files/dvc596/f/assets/documents/2014/10/19979IFPRI-White-Paper.pdf>
- [W5] **Ringler, C.** 2010. Climate change and hunger: Africa’s smallholder farmers struggle to adapt. *EuroChoices* 9(3): 16-21. <http://dx.doi.org/10.1111/j.1746-692X.2010.00175>.
- [W4] **Ringler, C.** and T. Sulser. 2010. Green water use in an era of growing water scarcity. SIWI. Stockholm.
- [W3] Bryan, E., W. Akpalu, M. Yesuf, and **C. Ringler**. 2009. Ending the carbon market drought. *Trading Carbon*. [www.pointcarbon.com](http://www.pointcarbon.com) 3(2): 36-38 (March 2009).
- [W2] **Ringler, C.** 2007. The Potential Role of Economic Instruments in River Basin Management - Increased economic efficiency through paying farmers to use less water. *Ökologisches Wirtschaften*. (Heft 1/2007), pp. 35-38.
- [W1] **Ringler, C.**, and J. Whitehead. 2006. Research on Water Rights and Allocation as Key to Sound Usage in Viet Nam. Water for All. August. <http://adb.org/water/actions/VIE/keys.asp>.

## BOOK REVIEWS

- [R2] *Environment* (September/October). 2009. *Food and Water Security*, edited by U. Aswathanarayana (Taylor & Francis, London, 2007; 360 pp).

## INVITED PRESENTATIONS

- 2019 “Sustainable Agriculture Water Management in the Context of Food-Energy-Water Nexus” (with Ximing Cai), American Geophysical Union Fall Meeting, San Francisco, December 8.
- 2019 “Solutions in Data and Technology From Global Modeling to On-Farm Solutions” at Denver Water Conference, November 7.
- 2019 Organized Bridge Collaborative Policy Seminar: “Bigger Change Faster: Integrated Development, Health, and Environment Actions for a Sustainable Future”, IFPRI, Washington DC, October 23.

- 2019 “Linking Farmers to Markets In the context of SDG2 and SDG6” FAO, October 16 (online.)
- 2019 “Irrigation Efficiency: Broadening the Toolbox”, Cairo, Egypt Seminar Series, October 2 (online).
- 2019 “How irrigation supports nutrition outcomes. New Insights”, ZEF, Bonn, October 1.
- 2019 “Commission on Sustainable Agricultural Intensification” at “Stepping up actions to build resilient food systems” at the “Building a Resilient Future” event, New York, September 22.
- 2019 “Achieving nutrition outcomes through improved agricultural water management: What are the Options?” Pennsylvania State University, State College, September 20.
- 2019 “The Water-Energy-Food Nexus: Insights from Global, Basin and Local Case Studies of Growing Natural Resource Scarcity in the Eastern Nile Basin”, at Strategic Networks and Initiatives Program (SNIP) Fall 2019 Speaker Series, Pennsylvania State University, State College, September 20.
- 2019 “Better Risk Management”, at IFPRI Policy Seminar titled: “Adapting to New Climate Realities: Doing More, Better, and New”, Washington DC, IFPRI.
- 2019 Co-organized a session with UNSCN, SIWI and the World Bank on “The multiple bridges connecting the water-nutrition divide: What’s new?” and presented “How irrigation supports nutrition outcomes: New Insights from the USAID Feed-the-Future Small-Scale Irrigation project” Stockholm World Water Week, August 27.
- 2019 Co-organized, with ILSI Research Foundation “Addressing Water Variability and Scarcity: The Role of Agricultural Research”. Washington DC, July 7.
- 2019 “Climate Change, Water Quality, & Nutrition: What are the linkages?” at Nebraska Water for Food Conference, Lincoln, April 29.
- 2019 [“Sudan and the Future of African Agriculture: Potential for Nexus Solutions,”](#) University of Khartoum, February 11.
- 2019 “Powering the Rural Transformation,” AGRA, Nairobi, February 7.
- 2018 Panelist at session on “The Alternative Careers: Research in Action at the Town Hall meeting” as part of the American Geophysical Union Fall Meeting, Washington DC, December 12.
- 2018 “Introduction to the Water-Energy-Food Nexus Approach” and “Water-Energy-Food Nexus in the MENA Region” presented at a Policy Dialogue and Training Workshop on Water-Energy-Food Nexus in the MENA Region”, Khartoum, Sudan, October 30 and October 31, respectively.
- 2018 “Why do irrigation experts need to understand about energy access?” Presented at “Win more, lose less: Capturing synergies between SDGs through agricultural research, at Stellenbosch, South Africa, October 10-12.
- 2018 “Overview of frameworks for irrigation and water resource management impacts on child nutrition” at the World Bank Group / USAID / IFPRI/ FAO/IWMI/WASAG session titled “Water for Well-being: From Framework to Action”, Stockholm, Sweden, August 29.
- 2018 “Decision-Making for Systemic Water Risks: Insights From a Participatory Risk Assessment Process in Vietnam” at the Australian Water Partnership / Water Future /

- CRC-Water Sensitive Cities / CGIAR WLE session titled “Building Watershed Resilience and Community Collaboration under Climate Change”, August 29.
- 2018 “Mapping small-scale irrigation for environmental sustainability and human prosperity: The case of Ethiopia” in the session “Small-Scale Irrigation—The Answer to Ecosystem Health?”, Stockholm, Sweden, August 26.
- 2018 Presentation on “[The Nexus in the Rural-Urban Space](#)” at UN side-event on "Addressing Resilience through the Nexus of Water-Food-Energy, Cities as Sustainable Development Goals Laboratories" organized by the Stakeholder Forum for a Sustainable Future and International Council for Science at the High-level Political Forum 2018 Forum, New York, US, July 17.
- 2018 “Building Capacity to Address the Water-Energy-Food Nexus: 3 examples” Presented at the ‘Nexus: Water, Energy, Food, Climate Change’ conference, Chapel Hill, North Carolina, April 16-18.
- 2018 “Water-Energy-Food (WEF) Nexus Interactions: Considerations for the CGIAR Research Agenda” Presented at the ‘Nexus: Water, Energy, Food, Climate Change’ conference, Chapel Hill, North Carolina, April 16-18.
- 2018 “Gender, Climate and Water: How can we do better?” at IDRC-IFPRI Workshop, Ottawa, Canada, March 6-7.
- 2018 “Small-scale Irrigation (SSI) in Sub-Saharan Africa: The Why and the How --drawing on ILSSI and other SSI activities” at Pathways to policy change on water in agriculture. An OECD – European Commission workshop, Brussels, February 22.
- 2018 “Impact of SSI on rural households” at the Irrigation in African Smallholder Farming Systems Symposium” organized by the ILSSI project, Washington DC, January 31.
- 2017 “A Guide to SDG Interactions from Science to Implementation: Education and the Climate-Food Nexus” at German-Ethiopian SDG Graduate School: Climate Change Effects on Food Security (CLIFOOD), Hawassa, Ethiopia, Nov 24.
- 2017 Panelist at “Securing women’s land rights as a climate change adaptation strategy”, Official Side Event COP 23, with Landesa and Rights and Resources Initiative.
- 2017 Panelist at “Climate Change and Land Degradation” organized by ZEF, Bonn, COP23 side event, Nov 8.
- 2017 Panelist at “Interconnected Implementation of the Paris Agreement and the 2030 Agenda”, Nov 7, organized by DIE and SEI, Bonn, COP23 side event.
- 2017 “The Water-Energy-Food Nexus: Opportunities for the Eastern Nile” at the Nile Basin Development Forum, October 24, Kigali, Rwanda.
- 2017 “Food-Energy-Water Nexus: What would be the impact of a carbon tax?”, at Tropentag, Bonn, Germany, September 22.
- 2017 “Gender und Klimawandel: Ist das wichtig? Einsichten aus der von der Bundesregierung Deutschland unterstützten Forschung”, to BMZ and GIZ at Universität Bonn, Germany, September 21.
- 2017 “A Guide to SDG Interactions: From Science to Implementation”, Panelist at side event organized by the International Council for Science (ICSU) at the High-Level Political Forum on Sustainable Development, 10-19 July, UN HQ, New York, US.
- 2017 “The Nexus as a fad or entry point for change?” Meeting of the Knowledge Action

- Network, Paris, June 19.
- 2017 “Impact of water quality/quantity on agricultural policy” at International Workshop on Innovation in Modelling Coupled Natural and Human Systems Related to Water, Tübingen, Germany, May 31.
- 2017 “Water for Food in the Nile River Basin: Potential of irrigation to address cereal import dependency” at First Nile Basin Economist Forum, Entebbe, Uganda, May 16-17
- 2017 “Research to address the Water-Energy-Food Nexus”, E2SHI Annual Symposium, Johns Hopkins University, Baltimore, April 3.
- 2017 Panelist in Opening Session and Panelist at EU session at Global Forum for Food and Agriculture 2017. Agriculture and Water-Key to Feeding the World, Berlin, January
- 2017 “Groundwater use in India and SSA: opportunities, challenges, solutions and outlook” at OECD-IFPRI organized event on “Agriculture and Groundwater: Feeding Billions from the Ground Up” at Global Forum for Food and Agriculture 2017. Agriculture and Water-Key to Feeding the World, Berlin, January 19.
- 2017 “The role of land information and land policies in managing the W-E-F Nexus” at The Water Assessment/ WEF Information System Workshop, January 12-13.
- 2016 Panelist at “How to understand and govern interconnected risks in SDG implementation?” – at Budapest Water Summit, Budapest, November 29.
- 2016 “Agriculture and Water – Key to Feeding the World”, Global Forum for Food and Agriculture Pre-Event, Embassy of Germany, Ottawa, October 12.
- 2016 “Key challenges across Food, Energy and Water Systems in South Asia and IMPACT” at Foresight Workshop on Policy Research on the Food-Energy-Water Nexus in the Eastern Gangetic Plain, Delhi, September 7.
- 2016 “Role of Water in the Agriculture and Power Sectors in the Indus River Basin, Pakistan” at Energy, Water, Food and Competition Policies EPDP-IFPRI Workshop, Washington DC, July 19-20.
- 2016 Participation at WLE-UNESCO-IHE Roundtable Discussion on “Panel discussion: How can we make agricultural development more sustainable?”, Delft, The Netherlands, June 14.
- 2016 “The Food-Energy-Water Nexus: Useful Concept at the Science-Policy Interface?” Presentation prepared for the UNEA Science Policy Interface, May 19-20 (with Hartwig Kremer and Cheikh Mbow).
- 2016 “Small-scale irrigation: Present and Future” at The Opportunities and Challenges of Expanding Smallholder Irrigation in Sub-Saharan Africa workshop at the 2016 Water for Food Global Conference, Lincoln, Nebraska, April 24.
- 2016 “River Basin Modeling” at the Conference “Modeling the Water-Food-Energy Nexus in the Arab World : The Case of Egypt”, at the Conrad Hotel, Cairo, Egypt, April 18.
- 2016 “Agricultural water service pricing & PPP models”, at Workshop on International Experiences of Agricultural Water Pricing at Directorate of Water Resources, Ministry of Agriculture and Rural Development, Hanoi, April 6.
- 2016 “Innovations to Meet Future Needs for Water, Energy & Food: Options for Pakistan’s Irrigation Systems” prepared for the 2<sup>nd</sup> Asian Irrigation Forum at the Asian Development Bank, Manila, January 20.

- 2016 “Food, Energy, Environment & Water: Risks and Options Assessment for Decision-Making (ROAD)” at the session on Innovations in Framing Decisions 16<sup>th</sup> National Conference and Global Forum on Science, Policy and the Environment (NCSE), Washington DC, January 19-22.
- 2015 “Assessing Models of Public Private Partnership in Irrigation Development (AMPPPIDA)” at the IFPRI-IWMI-WLE organized session on “Agricultural Water Management: Confluence of Policies, Institutions, and Technologies“, Dupont Summit, Washington, D.C., December 4.
- 2015 “The Power of the Crowd Obstacles and Opportunities in Crowdsourced Data for Agent-Based Modeling” (with Ethan Yang) at the IFPRI organized session at the 2015 Greater Mekong Forum on Water, Food and Energy, Phnom Penh, Cambodia, October 21-23.
- 2015 “Gender and Climate Change: Is there a Value Proposition”, at the IFPRI Policy Seminar ‘Beijing + 20 and Beyond: How Gender Research is Changing the Landscape of Food Policy’, IFPRI, Washington DC, October 14.
- 2015 “Tapping Irrigation’s Potential for Women’s Empowerment: Findings from Ethiopia and Tanzania” at USAID, Washington DC., October 13.
- 2015 “Climate change impacts on water quantity and quality: Implications for agriculture” at the Conference on Water Policy for Food Security, UC Davis, CA, October 5-6.
- 2015 “Nexus studies around irrigation water in Pakistan” at the ICRISAT Symposium on ‘Enabling Adoption of Water and Energy Efficient Technologies in Agriculture’, Hyderabad, India, Sep 29-30.
- 2015 Panellist at IFPRI policy seminar “Road to New York: Keeping the SDGs Agenda in Focus”, IFPRI, Washington DC, September 2.
- 2015 “The impact of climate and water variability on food security, options for investment” at the CGIAR WLE and FE2W Event organized by IFPRI titled ‘Goldilocks and water variability: Ways to increase socio-ecological resilience’, World Water Week, Stockholm, Sweden, August 24.
- 2015 Serve as a panellist on in the session on “Investments in agricultural lands versus water security” co-hosted by the African Ministers’ Council on Water and UNEP Division of Environmental Policy Implementation, World Water Week, Stockholm, Sweden, August 25.
- 2015 “Integrating Gender into Climate Change Adaptation Programs: A Research and Capacity Needs Assessment for Sub-Saharan Africa” in the seminar titled ‘Does Gender Matter in Climate Change Adaptation’, IAAE meetings, Milan, Italy, August 11.
- 2015 “Land Use and Urbanization,” at the TAMUS/Future Earth Water-Energy-Food Nexus Workshop: Research gaps in the integrated observations and improved governance for the WEF Nexus, June 1-3.
- 2015 “Water Quality Management for Agriculture and the Environment: Will Clean Water be a Future Luxury?” (with Hua Xie) IFPRI-PAWEES organized session at World Water Forum, Daegu, Exco, Republic of Korea, April 16.
- 2015 “Water for food security and nutrition – A premiere of the Report of the High Level Panel of Experts on Food Security and Nutrition (HLPE) for the UN Committee on World Food Security (CFS), World Water Forum, Daegu, Exco, Republic of Korea, April 12-18.

- 2015 “Energy and food security: Role of energy models for agricultural policy planning” at the Dresden Nexus2015 conference, Dresden, Germany, March 25-27.
- 2015 “Microinsurance Decisions: Gendered Evidence from Rural Bangladesh” at the ‘Closing the Gender Gap in Farming under Climate Change: New Knowledge for Renewed Action’ Workshop, organized by CCAFS, Paris, France, March 19.
- 2015 Panelist at IFPRI policy seminar “Perspectives on Energy, Water and Agriculture”, IFPRI, Washington DC, February 19.
- 2015 “Achieving integration, an imperative to meet SDG2 on food security, improved nutrition and sustainable agriculture” at the ICSU SDG side event ‘Robust and measurable Sustainable Development Goals – the Science Perspective’, New York, USA, February 18.
- 2014 “Maintaining Food Security under Growing Water Scarcity,” at Going Beyond Agricultural Water Productivity, World Bank, Washington, D.C., Dec 8-9.
- 2014 “Facilitated an Official IFPRI Side event at UNFCCC COP20 on Dec 3 and facilitated a session on “Gender and Resilience across the Landscape: Lessons from Latin America, Africa and Asia”; and gave a presentation on “Why we need a stronger framing of gender in the negotiations” at the Global Landscape Forum in Lima, Dec 6.
- 2014 “Assessing prospects for food and water security using scenario analysis” The Integrated Assessment Society Webinar on the Water-Food Nexus, Nov 25.
- 2014 “Challenges and opportunities of undertaking social surveys in the context of interdisciplinary projects on ecosystem services” at ESPA Social Surveys Event, London, October 23.
- 2014 “Productivity of surface versus groundwater in Pakistan”, King Abdullah Petroleum Studies and Research Center [KAPSARC] energy productivity research team conference, Paris, September 15.
- 2014 “Gender differences in climate change perceptions, adaptation, and resilience,” at the final BMZ climate change gender outreach event in Addis Ababa, Ethiopia, June 17.
- 2014 “Food Security in a World of Natural Resource Scarcity: The Role of Agricultural Technologies” at the Department for Environment, Food, and Rural Affairs (DEFRA), London, April 7.
- 2014 “Ernährungssicherung bei Ressourcenverknappung: Die Rolle von Agrartechnologien” at the Bundesministerium für Ernährung und Landwirtschaft, Bonn, Germany, May 19
- 2014 “Ecosystem Services in the Nexus” WLE organized session at the Global Water Systems Conference, Bonn, Germany, May 19-21
- 2014 “Water-energy-food”—Implications for agriculture” at the Global Land Project Open Science Meeting, Berlin, Germany, March 18-21.
- 2014 “Agriculture water management for enhanced resilience in drylands,” a joint brown bag seminar within the World Bank’s African Drylands Seminar Series. (online presentation)
- 2013 “Water for food security: challenges for Pakistan” at the one-day joint IWMI-IFPRI Water International Seminar in Islamabad, Dec 6.
- 2013 “Women’s Empowerment in Agriculture Index” at the IWMI-IFPRI two-day consultation on research directions for the CGIAR research program on Water, Land and Ecosystems (WLE) in the Indus Basin, Islamabad, Dec 4-5.



- 2013 Panelist for “Latin America and the Caribbean: Improving land use and resource efficiency” at the Policy Forum Berlin policy forum, “Realizing the water, energy, and food security nexus,” hosted by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Berlin, Germany, Nov 28-29.
- 2013 “The role of land and water for trade and food production in Latin America” at the forum on “Water: Food for the Land” at the Ministerial Meeting of the Ministers of Agriculture of the American Hemisphere, Buenos Aires, Argentina, Sep 25.
- 2013 “Effects of Water-saving Irrigation to Water Uses and Food Production: Modeling-based Scenario Analysis” at the final ADB project workshop on “RETA 7648-REG for the Strategic Research for Sustainable Food and Nutrition Security in Asia, Subcomponent 1, Innovative Water-Saving Irrigation and Investment Priorities for Food Security and Water Sustainability in China, India and Vietnam“, Ho Chi Minh City, Vietnam, June 16.
- 2013 “The Water-Energy-Food Nexus in the Indus River of Pakistan” at the session “The Energy-Water Nexus in River Basins across the Developing World” Global Water System Project International Conference, “Water in the Anthropocene: Challenges for Science and Governance. Indicators, Thresholds and Uncertainties of the Global Water System, May 21-23.
- 2013 “Global Water Modeling in IMPACT: Semi-distributed global hydrological model & global water demand and supply projection model,” at the World Water Scenarios Initiative at the International Institute for Applied Systems Analysis (IIASA), May 6-8.
- 2013 “The role of science and scenario modeling in setting priorities for SDGs” at an Expert Group Meeting on "Science and Sustainable Development Goals" organized by the United Nations Department of Economic and Social Affairs (UN-DESA), International Council for Science (ICSU) and the International Social Science Council (ISSC) held at the United Nations, New York, March 21-22; also spoke in front of a UN sub-meeting on the SDGs.
- 2013 “The impact of irrigation on nutrition, health and gender outcomes" at the Safe Global Water Summit organized by the Safe Global Water Institute, in Arusha, Tanzania, Jan 31-Feb 2.
- 2013 “Agricultural Technology Potential and the Role of Irrigation Feed The Future Zone” at the Bangladesh Policy Research and Strategy Support Program workshop organized by the IFPRI-Dhaka office, Jan 16.
- 2012 “Feeding the World: The Role of Technologies and Innovations” at Food Security 2012—Sustainable Intensification: Miracle or Mirage or Else? Chatham House, Dec 10.
- 2012 “2012 Global Hunger Index: The Challenge of Hunger: Ensuring Sustainable Food Security under Land, Water and Energy Stresses”. World Food Prize Symposium Side Event, Des Moines, Iowa, October 18.
- 2012 Attend the Global Water System Project Scientific Steering Committee Meeting hosted by International Institute for Applied Systems Analysis (IIASA) and present IFPRI water research, Laxenburg, Austria, October 1-3.
- 2012 “Water and Food in the Bioeconomy: Challenges and Opportunities for Development”. Ven Te Chow Hydrosystems Lab Speaker Series, University of Illinois Urbana-Champaign, September 20.
- 2012 “Water Scarcity and Agriculture: Challenges and Solutions for Developing Countries”

- (co-presented with Professor Ximing Cai), at the University of Illinois at Urbana-Champaign's first Global Awareness and Development Speaker Series, September 19.
- 2012 “Role of technology in achieving sustainable intensification?”, ARDD, Rio+20, June 18.
- 2012 “Promising technologies for future food security”, Global Compact, Rio + 20, June 17.
- 2012 “Feeding the World: Sustainable Agriculture & Innovation in the 21st Century,” Rio + 20 Official Side Event, June 16.
- 2012 “Globalization and Agri-Food—Impacts on Developing Country Agriculture”, The International Economic Forum of the Americas, Conference of Montreal, June 13.
- 2012 “Climate Change and Water Resources Management: A Review of Modeling Studies on Impact and Adaptations,” at the Integrated Assessment Modeling Conference, NBER, Cambridge, MA, May 17.
- 2011 “Emerging Country Strategies for Improving Food Security: Linkages and Trade-Offs for Water and Energy Security” at the Bonn2011 Conference: The Water, Energy, and Food Security Nexus, October 27.
- 2011 “Potential for Small-scale Irrigation in Sub-Saharan Africa under Climate Change- Insights for Motor Pumps” at the XIV World Water Congress, Porto de Galinhas - Brazil, September 25-29.
- 2011 "Water Scarcity in the Context of Growing Food Demands and Climate Change" at the XVI Climate Change Impacts and Integrated Assessment Workshop, Snowmass, Co, organized by the Energy Modeling Forum, Stanford University, July 28.
- 2011 "Sustaining Growth via Water Productivity: 2030/2050 Scenarios" (via teleconference) at the International Private Water Association Financial Tools Taskforce meeting with Laurent Auguste, Veolia Water Services, May 20.
- 2011 "Synergies among Adaptation, Mitigation, and Profitability: Examples from Rural Kenya" at the World Bank, May 4.
- 2011 "The Global Food and Water Nexus" at the "Global Water Summit 2011: Focusing on Performance" organized by the Global Water Intelligence and the International Desalination Association, Berlin, April 18.
2011. "The Impact of Water Scarcity on Third-World Agriculture" at the Plant Abiotic Stress Tolerance Mechanisms, Water and Global Agriculture, Keystone Symposia, January 19, Keystone, Colorado.
2010. “Climate Change and Water: Impacts on Global Food Security,” Third McGill Food Security Conference, October 20, Montreal, Canada.
2010. “A study on the perception and adaptation to climate change: The case of farmers in the Nile basin of Ethiopia” WCERE 2010, July 1, Montreal, Canada.
2009. Present at IFPRI COP15 side event "Synergies between Mitigation and Adaptation to Climate Change: What is the potential for Sub-Saharan Africa?"
2009. Panelist on “The Role of Trade in Food and Agricultural Products under Climate Change” at the “Dialogue on Climate Change and Food Security: Taking Stock at the COP15”, organized by International Center for Trade and Sustainable Development and International Food and Agricultural Trade Research Council, Dec 11, Copenhagen.

2009. "Climate change impacts on water and food—a developing-country perspective" McGill University--Agriculture and the Environment "Food for Thought Lecture Series" 27 October, Montreal, Canada.
- 2009., "Climate Change and Agriculture: Are We Going To Feed a Growing Population on a Hotter Planet?" Panelist at Society of Environmental Journalist Panel on Climate Change and Agriculture.
2009. "Climate Change and Agricultural Trade: How effective is reform as an adaptation measure? ICTSD and IPC Climate Change and International Agricultural Trade Rules, 1 October, Geneva.
2009. "Synergies Between Mitigation of and Adaptation to Climate Change: Experience from Kenya." Presented at Climate Change and Agricultural Adaptation in Developing Countries: Alternatives for Analysis and Action. Mini-symposium at the 27<sup>th</sup> International Association of Agricultural Economists meetings held in Beijing, China, August 17-22.
2009. "Policy interventions to improve food production through improvement and intensification of agriculture" presented at 2009 World Congress of the World Agriculture Forum, St. Louis, Missouri, May 20.
2009. "Effect of Reduced Water Supplies on Food Production Economies" OECD Conference Challenges in Agricultural Research, Prague, April 6-8.
2009. "How to Ensure Sustainable Access to Water for Food in a World of Growing Scarcity" presented at "New Green Revolution? Meeting the Global Food and Energy Demands", University of Illinois at Urbana-Champaign, March 4-6.
2009. "Water-for-food interactions under growing scarcity." Woods Institute for the Environment, Stanford University, January 26-27.
2008. "Key Messages: Food and Water Under Global Change: Developing Adaptive Capacity with a Focus on Rural Africa" presented at the Conference: "How can African Agriculture Adapt to Climate Change? Results and Conclusions for Ethiopia and beyond", Nazareth, Ethiopia, Dec. 11-13.
2008. "Impact of Climate Change on Food Production in Sub-Saharan Africa. New Insights. Presentation to Students from De Paul University, Dec. 4. Washington, D.C.: IFPRI.
2008. "Yellow River Basin Focal Project" presented at Yellow River Conservancy Commission Headquarters, Zhengzhou, China, January 10-12, 2008.
2007. "Biofuels and Global Food Security: Drawing the line between chances and threats to food security through the rapid development of biofuel markets" at the Conference Politik gegen Hunger VI - Bioenergie und Ernährungssicherheit" BEMLV, Berlin, Germany, December 17, 2007.
2007. "Institutional Options for Improving Water Management in India – Potential Role of River Basin Organizations. The Indian Context." Asian Development Bank, Delhi, August 3, 2007.
2007. "Global Scenarios for Biofuels: IMPACTs and Implications. Presented at "Linkages between Energy and Water Management for Agriculture in Developing Countries" Workshop. ICRISAT Campus, Hyderabad, India
2007. "Global Change Impacts on Water and Food Security. Economic Analysis. Session and Presentation at The Integrated Assessment Society (TIAS) & the Global Water System Project (GWSP) joint workshop titled "Global Assessments: Bridging Scales and Linking to Policy" held at the University of Maryland, May 11-12.

2007. "Energy Price and Groundwater Extraction for Agriculture: Exploring the Energy-Water-Food Nexus at the Global and Basin Levels" Linkages between Energy and Water Management for Agriculture in Developing Countries, ICRISAT Campus, Hyderabad, India, 29-30 January 2007
2007. "Global Scenarios for Biofuels: IMPACTs and Implications" - Linkages between Energy and Water Management for Agriculture in Developing Countries, ICRISAT Campus, Hyderabad, India, 29-30 January 2007
2006. "Global Water Policies: What does it mean? Is it important?" at the International Water Forum, Lao PDR, November 6-10.
2006. "The Potential Role of Economic Instruments in River Basin Management" at the Workshop on Economic Instruments, World Water Week, Stockholm, 20-26 August.
2006. "Economic and financial incentives for water-saving in rice" at the World Wildlife Fund-Food and Agriculture Organization of the United Nations' workshop, "Rice, the Millennium Development Goals and the Growing Freshwater Crisis," March 3-9, Los Baños, Philippines
2006. "Global food, feed, fiber and bioenergy demand prospects: Implications for natural resources – Drawing on the Millennium Ecosystem Assessment", at International Fertilizer Association Conference, Kunming, China, March 1.
2005. "The Water Brokerage Mechanism—Efficient Solution for the Irrigation Sector" at the World Water Congress of the International Water Resources Association conference on "Water for Sustainable Development-Towards Innovative Solutions" Nov 20-25, Delhi, India:
2005. "The Future of Water and Food Security" at a seminar titled "Competition for Water in Developing Countries: Public and Private Sector Perspectives", at the International Resources Group, and held in Washington, DC
2005. "Globalization-What's in it for the Poor in Terms of Water and Food Security?" at World Water and Environmental Resources Congress 2005 titled "Impacts of Global Climate Change", Anchorage, Alaska
2004. "Water Supply and Food Security: Alternative Scenarios for the Indian Indo-Gangetic River Basin" Seminar on "Integrated Water Resource Management for Livelihood Improvement in the Indo-Gangetic River Basin", Stockholm Water Week under the Challenge Program on Water and Food, Sunday, August 15th, 2004 (co-authors M.W. Rosegrant and S.A. Cline)
2004. "The Role of Water Rights and Market Approaches to Water Quality Management in the Americas." Paper presented at the "Workshop on Water Quality Management for North and South America," Fortaleza, Brazil, 12-13 April (co-authors: S. Cline & M.W. Rosegrant).
2004. "Experience with Integrated Economic-Hydrologic River Basin Models in Vietnam." Presentation at the ANU-MONRE Workshop "Managing Groundwater Access in Tay Nguyen (Central Highlands), Vietnam (ADP/2002/015)," Hanoi, July 13-14.
2003. "Water Allocation Policies for the Dong Nai River Basin in Vietnam: An Integrated Perspective." Paper prepared for the "Panel on Water Policy and Agricultural Production at the Global and River Basin Levels," Durban, South Africa, August 16-23, 2003 (co-author: N. Vuy Huy).
2003. "Addressing Environmental Water Values in an Integrated Economic-Hydrologic River Basin Modeling Framework." Paper presented at the workshop "Integrated

- Environmental Impacts into Water Allocation Models of the Mekong River Basin,” Ho Chi Minh City, 15 December, 2003 (co-author: X. Cai).
2002. “River Basin Management in Mainland Southeast Asia.” Presentation at the World Food Prize International Symposium “From the Middle East to the Middle West: Managing Freshwater Shortages and Regional Water Security”
2001. “Irrigation Service Provision in Cu Chi, HCMC, and Ninh Thuan Province.” Ho Chi Minh City, July (co-authors: N Chi Cong, N. Duy Son, N. Vu Huy, H. Gia Linh).
2001. “Competition for Water Uses in a River Basin Context.” Woman’s National Democratic Club (WNDC), Washington, D.C., January 18.
1999. “Water Resource Allocation in the Mekong River Basin: Challenges and Opportunities.” Paper presented at the Symposium on Food and Agricultural Policy, organized by IFPRI, Hanoi, Vietnam, March 1-2 (co-author: M.W. Rosegrant).
1998. “Competition for Water Uses in a River Basin Context.” Paper presented at the “International Water Congress Forum” in Bonn, Germany, October 21-25 (co-author: M.W. Rosegrant).

### PhD Committees

- Helen Berga Paulos, University of Bonn, (Hydro-economic Modeling in the Eastern Nile Basin), 2019.
- Insa Flachsbarth, Complutense, Madrid (A multi-scale analysis of transforming agricultural markets in the context of globalization: Implications for natural resources, food prices and rural poverty in Latin America), 2015
- Maksud Bekchanov, University of Bonn, (Aral Sea Basin modeling), 2014
- Temesgen Tadesse Deressa, University of Pretoria (Assessment of the vulnerability of Ethiopian Agriculture to climate change and farmers’ adaptation strategies), 2010.
- Charles Nhemachena, University of Pretoria (Adaptation to Climate Change, Southern Africa), 2008
- Mary Ann Franco-Dixon, University of Queensland, Australia. (Economic Analysis of Water Pricing and Water Allocation Options for the Emerald Irrigation Area: An Integrated Hydrological, Bio-Physical and Economic Modelling Approach), 2006
- Patrick Obeng-Asiedu, Bonn University (Volta River Basin Water Allocation Modeling), 2004

### Advisory Committees

- Chair, Food, Energy, Environment and Water [\(FE<sup>2</sup>W\) Network](#) (2015-)
- Member, [International Advisory Committee, UNU-INWEH](#) United Nations University Institute for Water, Environment and Health (2017-)
- Member, Program Development Committee (2016-17), [Knowledge Action Network for Future Earth Water-Energy-Food Nexus](#)
- Member, Advisory Council, [Overcoming Water Scarcity](#), Foundation for Food and Agricultural Research (2016-)
- Member of the Planning Committee and Member of the Sustainable W-E-F Nexus Working Group, [Sustainable Water Future Programme \(SWFP\)](#)

**Journal referee for:**

- Ambio
- Australian Journal of Agricultural and Resource Economics
- Agricultural Economics
- African Journal of Agricultural and Resource Economics
- Agricultural Water Management
- Agronomy Journal
- Climatic Change
- Climate Policy
- Current Opinion in Environmental Sustainability
- European Review of Agricultural Economics
- Environment and Development Economics
- Environmental Engineering Science
- Environmental Research Letters
- Environmental Science and Policy
- Food Policy
- Food Security
- Frontiers
- Global Environmental Change
- Global Food Security
- International Journal of River Basin Management
- Journal of African Economies
- Journal of Eastern African Studies
- Journal of Environmental Management
- Journal of Hydrology: Regional Studies
- Journal of Water Resources Planning and Management
- Natural Resources Forum
- Nature Climate Change
- Paddy and Water Environment
- Quarterly Journal of Agricultural Economics
- Renewable and Sustainable Energy Reviews
- Science
- Water Alternatives
- Water International
- Water SA
- Water Resources Management
- Water Resources Research
- World Development

*Also Reviewer for several National Science Foundations and for the European Research Council*