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EDUCATION

1994-98 Cornell University, Ph.D. Major Field: Hydrology
1989-91 Cornell University, M.S. Major Field: Hydrology
1981-85 Swarthmore College, B.S. Major: Water Resources
1981-85 Swarthmore College, B.A. Major: Asian Studies

TEACHING

2008 Fall Adaptive Water Management in Agriculture, University of Arizona, GEOG 696J
2008 Spring Water Resource Assessment, University of Arizona, GEOG 467
2007 Fall Water Management & Policy, University of Arizona, GEOG 596J
2007 Spring Water, Environment, and Society, University of Arizona, GEOG 304
1995 Spring Irrigation & Drainage Design, Teaching Asst., Cornell University

ACADEMIC APPOINTMENTS AND EMPLOYMENT

2006 - *Assistant Research Professor of Water Resources Policy*, Udall Center for Studies in Public Policy, University of Arizona; affiliated faculty with: Institute for Environment and Society, Center for Latin American Studies, Arid Lands Resource Sciences, Dept. Hydrology & Water Resources, Dept. Soil, Water & Environmental Science.
2006 - *Asst. Professor of Geography & Regional Development* (jointly appointed), Univ. Arizona.
2005-06 *Senior Project Specialist - Hydrometeorology*, National Oceanic & Atmospheric Administration National Weather Service, International Activities Office, Silver Spring, MD.
2001-05 *Principal Researcher; Director for Asia*, International Water Management Institute (IWMI), Hyderabad, India.
2000-01 *Hydrologist*, U.S. Agency for International Development, Global Environment Center, Washington, DC (seconded by IWMI, Colombo, Sri Lanka).
1997-2000 *Senior Researcher*, Mexico Program Leader, IWMI, Guanajuato, Mexico.
1994-97 *Research Associate*, New York City Watershed Project, Cornell Univ., Ithaca, NY.
1992-94 *Project Manager - Watersheds*, Catholic Relief Services, Tegucigalpa, Honduras.
1991-92 *Research Assistant*, Cornell Irrigation Studies Group, Ithaca, NY.
1990 *Intern - Watershed Management*, The Ford Foundation, New Delhi, India.
1987-89 *Coordinator - Watershed Management and Small-scale Irrigation*, Seva Mandir (an NGO), Udaipur, Rajasthan, India.
1987 *Consultant - Appropriate Shelter*, Development Alternatives (NGO), N. Delhi, India.
1985-87 *Assistant Engineer - Floodplain Mapping*, Baker Engineers, Alexandria, VA.

PUBLICATIONS – Refereed Journal Articles

- Biggs, T.W., C.A. Scott, A. Gaur, J.P. Venot, E. Lee, T. Chase. Accepted. Irrigation and atmospheric forcing of heat fluxes and surface temperatures, southern India. *Water Resources Research*.
- Scott, C.A., B.R. Sharma. Forthcoming. Energy supply and the expansion of groundwater irrigation in the Indus-Ganges basin. *International Journal of River Basin Management*.
- Scott, C.A., J.M. Banister. 2008. The dilemma of water management “regionalization” in Mexico under centralized resource allocation. *International Journal of Water Resources Development* 24(1): 61–74, DOI: 10.1080/07900620701723083.
- McCartney, M., C.A. Scott, J.H.J. Ensink, B.B. Jiang, T.W. Biggs. 2008. Salinity implications of wastewater irrigation in the Musi River catchment, India. *Ceylon Journal of Science* 37 (1): 49-59.
- Scott, C.A., F. Flores-López, J.R. Gastélum. 2007. Appropriation of Río San Juan water by Monterrey city, Mexico: implications for agriculture and basin water sharing. In *Special issue “Transfer of Water from Irrigation to Urban Uses: Lessons from Case Studies,” Paddy & Water Environment*. 5(4): 253-262, DOI 10.1007/s10333-007-0089-3.
- Biggs, T.W., C.A. Scott, B. Rajagopalan, H.N. Turrall. 2007. Trends in solar radiation due to clouds and aerosols, southern India, 1952-1997. *International Journal of Climatology* 27(11): 1505-1518.
- Biggs, T.W., P.S. Thenkabail, M.K. Gumma, C.A. Scott, G.R. Parthasaradhi, H. Turrall. 2006. Irrigated area mapping in heterogeneous landscapes with MODIS time series, ground truth and census data, Krishna Basin, India. *International Journal of Remote Sensing* 27(19): 4245-4266, DOI 10.1080/01431160600851801.
- Ahmad, M., T.W. Biggs, H. Turrall, C.A. Scott. 2006. Application of SEBAL approach and MODIS time-series to map vegetation water use patterns in the data scarce Krishna river basin of India. *Water Science & Technology* 53(10): 83–90.
- Scott, C.A. and T. Shah. 2004. Groundwater overdraft reduction through agricultural energy policy: insights from India and Mexico. *International Journal of Water Resources Development* 20(2): 149-164.
- Joshi, P.K., V. Pangare, B. Shiferaw, S.P. Wani, J. Bouma, C.A. Scott. 2004. Watershed development in India: synthesis of past experiences and needs for future research. *Indian Journal of Agricultural Economics* 59(3): 303-320.
- Scott, C.A., W.G.M. Bastiaanssen, M. Ahmad. 2003. Mapping root zone soil moisture using remotely sensed optical imagery. *Journal of Irrigation & Drainage Engineering* 129(5): 326-335.
- Scott, C.A., H. El-Naser, R.E. Hagan, A. Hijazi. 2003. Facing water scarcity in Jordan: reuse, demand reduction, energy and transboundary approaches to assure future water supplies. *Water International* 28(2): 209-216.
- Scott, C.A., P. Silva-Ochoa. 2001. Collective action for water harvesting irrigation in the Lerma-Chapala Basin, Mexico. *Water Policy* 3 (2001): 555-572.
- Scott, C.A., M.F. Walter, G.N. Nagle, M.T. Walter, N.V. Sierra, E.S. Brooks. 2001. Residual phosphorus in runoff from successional forest on abandoned agricultural land: 1. biogeochemical and hydrological processes. *Biogeochemistry* 55(3): 293-309.
- Scott, C.A., M.F. Walter. 2001. Residual phosphorus in runoff from successional forest on abandoned agricultural land: 2. hydrological and soluble reactive P budgets. *Biogeochemistry* 55(3): 311-325.

- Scott, C.A.,** K.W. Weiler. 2001. Modeling soluble phosphorus desorption kinetics in tile drainage. *ASCE Journal of Irrigation and Drainage Engineering* 127(2): 70-76.
- Walter, M.T., J.Y. Parlange, M.F. Walter, X. Xin, **C.A. Scott**. 2001. Pollutant release from a surface source during rainfall-runoff. *Journal of Environmental Quality* 30(1): 151-159.
- Barker, R., **C.A. Scott**, C. de Fraiture, U. Amarasinghe. 2000. Global water shortages and the challenge facing Mexico. *International Journal of Water Resources Development* 16(4): 525-542.
- Scott, C.A.** 2000. How “participatory” is integrated water resources management? In N. Faruqui and O. Al-Jayyousi (eds.) Reflection on the World Water Vision by the ‘Next Generation of Water Leaders’ *Water International* 25(2): 303-311.
- Weiler, K.R., M.T. Walter, M.F. Walter, E.S. Brooks, **C.A. Scott**. 2000. Seasonal risk analysis for flood plains in the Delaware River basin. *Journal of Water Resources Planning and Management*. 126(5): 320-329.
- Scott, C.A.,** M.F. Walter, E.S. Brooks, J. Boll, M.B. Hes, M.D. Merrill. 1998. Impacts of historical changes in land use and dairy herds on water quality in the Catskills Mountains. *Journal of Environmental Quality* 27: 1410-1417.
- Scott, C.A.** 1998. Comment on ‘Design for an inexpensive continuous digital output water level recorder’ by S. Reedyk *et al.* (Paper 97WR00678). *Water Resources Research* 34(9): 2419-2421.
- Scott, C.A.,** L.D. Geohring, M.F. Walter. 1998. The water quality impacts of tile drains in shallow, sloping, structured soils. *Applied Engineering in Agriculture* 14(6): 599-603.
- Scott, C.A.** and M.F. Walter. 1993. Local knowledge and conventional soil science approaches to erosional processes in the Shivalik-Himalaya. *Mountain Research & Development* 13(1): 61-72.

PUBLICATIONS – Books/Edited Volumes

- Gerba, C.F., **C.A. Scott**. 2008. Animal and human waste as vehicles for cross-contamination of imported foods. In M. Doyle and M.C. Erickson (eds.) Safety of Imported Foods: Microbiological Issues and Challenges. American Society of Microbiology Press, Washington, DC, pp. 113-138.
- Shah, T., **C.A. Scott**, J. Berkoff, A. Kishore, A. Sharma. 2007. Energy-irrigation nexus in South Asia: Pricing versus rationing as practical tool for efficient resource allocation. In F. Molle and J. Berkoff (eds.) Irrigation Water Pricing: The Gap Between Theory and Practice. CAB International, Wallingford, pp. 208-232.
- Shah, T., **C.A. Scott**, A. Kishore, A. Sharma. 2007. Energy-irrigation nexus in South Asia: improving groundwater conservation and power sector viability. In M. Giordano and K.G. Villholth (eds.) The Agricultural Groundwater Revolution: Opportunities and Threats to Development. CAB International, Wallingford, pp. 211-242.
- Buechler, S., **C.A. Scott**. 2006. Contributors to Chapter 4 ‘Water Scarcity, Risk and Vulnerability’. The 2006 Human Development Report - Beyond Scarcity: Power, Poverty and the Global Water Crisis. United Nations Development Program, New York, pp. 151-152.
- Sinha, S., B.R. Sharma, **C.A. Scott**. 2006. Understanding and managing the water-energy nexus: moving beyond the energy debate. In B.R. Sharma, K.G. Villholth, and K.D. Sharma (eds.) Groundwater Research and Management: Integrating Science into Management Decisions. International Water Management Institute, Colombo, Sri Lanka, pp. 242-257.

- Scott, C.A.** 2005. Investing in the reuse of treated wastewater. Investment Note 5.3. Shaping the Future of Water for Agriculture: A Sourcebook for Investment in Agricultural Water Management. World Bank, Washington, DC, pp. 185-189.
- Sivamohan, M.V.K., **C.A. Scott**. 2005. Coalition-building for participatory irrigation management under changing water resource trends: reflections on reforms in Andhra Pradesh, India. In G.P. Shivakoti, D.L. Vermillion, W.F. Lam, E. Ostrom, U. Pradhan, R. Yoder (eds.) Asian Irrigation in Transition: Responding to Challenges. Sage Publications, New Delhi, pp. 390-408.
- Sharma, B.R., J.S. Samra, **C.A. Scott**, S.P. Wani (eds.) 2005. Watershed Management Challenges: Improving Productivity, Resources, and Livelihoods. International Water Management Institute, New Delhi, India, 336 p.
- Scott, C.A.**, N.I. Faruqui, L. Rachid-Sally (eds.) 2004. Wastewater Use in Irrigated Agriculture: Confronting the Livelihood and Environmental Realities. CAB International, Wallingford, 193 p.
- Scott, C.A.**, T. Shah, S.J. Buechler, P. Silva-Ochoa. 2004. La fijación de precios y el suministro de energía para el manejo de la demanda de agua subterránea: enseñanzas de la agricultura mexicana. In C. Tortajada, R. Sandoval, E. Castelán (eds.) Hacia una Gestión Integral del Agua en México: Retos y Alternativas. Porrúa Editores, Mexico City, pp. 201-228.
- Wester, P., **C.A. Scott**, M. Burton. 2004. River basin closure and institutional change in Mexico's Lerma-Chapala Basin. In M. Svendsen (ed.) Irrigation and River Basin Management: Options for Governance and Institutions. CABI Publishing, Wallingford, pp. 125-144.
- Scott, C.A.** 2003. Recycling and reuse of 'derivative water' under conditions of scarcity and competition. In C. Figueres, C. Tortajada, J. Rockstrom (eds.) Rethinking Water Management: Innovative Approaches to Contemporary Issues. Earthscan, London, pp. 102-119.
- Scott, C.A.** 2003. Sustainable groundwater management: have property rights reforms helped in Mexico? In Groundwater Governance in Asia: The Challenge of Taming a Colossal Anarchy. IWMI Contribution to III World Water Forum, Kyoto for the session on "Water, Food and Environment". IWMI-Tata Water Policy Program, Anand, p. 18.
- Scott, C.A.**, P. Silva-Ochoa, V. Florencio-Cruz, P. Wester. 2001. Competition for water in the Lerma-Chapala basin. In A. Hansen and M. van Afferden (eds.) The Lerma-Chapala Watershed: Evaluation and Management. Kluwer Academic/Plenum Publishers, New York, pp. 291-323.
- Scott, C.A.**, C. Garcés R. 2001. Conjunctive management of surface water and groundwater in the middle Río Lerma Basin, Mexico. In A.K. Biswas and C. Tortajada (eds.) Integrated River Basin Management. Oxford University Press, New Delhi, pp. 176-198.
- Scott, C.A.** 1994. Facing environmental degradation in the Aravalli Hills, India. In A.C. Millington and K. Pye (eds.) Environmental Change in Drylands: Biogeographical and Geomorphological Perspectives. Wiley, Chichester, pp. 413-426.
- Scott, C.A.** 1994. Streamside pumpwell, Rajasthan, India and Discharge regulator for pressurized systems in Haryana, India. In R. Yoder (ed.), Designing Irrigation Structures for Mountainous Environments. International Irrigation Management Institute. Colombo, Sri Lanka, pp. 78-82, 175-179.
- Sivamohan, M.V.K., **C.A. Scott** (eds.) 1994. India: Irrigation Management Partnerships. Booklinks. Hyderabad, India, 435 p.
- Sivamohan, M.V.K., **C.A. Scott**, M.F. Walter. 1992. Vetiver grass for soil and water conservation: prospects and problems. In D. Pimentel (ed.), World Soil Erosion and Conservation. Cambridge University Press, Cambridge, pp. 293-309.

PUBLICATIONS – Research Reports

- Biggs, T.W., A. Gaur, **C.A. Scott**, P. Thenkabail, P.G. Rao, M.K. Gumma, S. Acharya, and H. Turrall. 2007. Closing of the Krishna basin: irrigation, streamflow depletion and macroscale hydrology. *IWMI Research Report No. 111*. International Water Management Institute, Colombo, Sri Lanka.
- Amarasinghe, U., B. Sharma, N. Aloysius, **C.A. Scott**, V. Smakhtin, C. de Fraiture. 2005. Spatial variation in water supply and demand across the river basins of India. *IWMI Research Report No. 83*. International Water Management Institute, Colombo, Sri Lanka.
- Shah, T., **C.A. Scott**, A. Kishore, A. Sharma. 2003. Energy-irrigation nexus in South Asia: improving groundwater conservation and power sector viability. *IWMI Research Report No. 70*. International Water Management Institute, Colombo, Sri Lanka.
- Scott, C.A.**, J.A. Zarazúa, G. Levine. 2000. Urban-wastewater reuse for crop production in the water-short Guanajuato River Basin, Mexico. *IWMI Research Report No. 41*. International Water Management Institute, Colombo, Sri Lanka.
- Scott, C.A.**, P. Wester, B. Marañón-Pimentel (eds.). 2000. Asignación, productividad y manejo de recursos hídricos en cuencas. (*Allocation, productivity and management of basin water resources*). *Serie Latinoamericana No. 20*. International Water Management Institute, Mexico D.F., Mexico.
- Flores-López, F.J., **C.A. Scott**. 2000. Superficie agrícola estimada mediante análisis de imágenes de satélite en Guanajuato, México. (*Estimating agricultural area using satellite imagery in Guanajuato, Mexico*). *Serie Latinoamericana No. 15*. International Water Management Institute, Mexico D.F., Mexico.
- Flores-López, F.J., **C.A. Scott**. 1999. Simulación de alternativas del manejo del agua en la cuenca del río San Juan, México. (*Simulation of water management alternatives in the Rio San Juan Basin, Mexico*). *Serie Latinoamericana No. 9*. International Water Management Institute, Mexico D.F., Mexico.
- McKinney, D.C., X. Cai, M.W. Rosegrant, C. Ringler, **C.A. Scott**. 1999. Modeling water resources management at the basin level: review and future directions. *System-wide Initiative on Water Management Paper No. 6*. International Water Mgmt. Institute, Colombo, Sri Lanka.

PUBLICATIONS – Work in Progress

- Scott, C.A.**, S. Dall'erba, R. Díaz. Submitted, in review. Groundwater rights in Mexican agriculture: spatial distribution and social and economic determinants. *Professional Geographer*.
- Celio, M., **C.A. Scott**, M. Giordano. Submitted, in review. Urban-agricultural water appropriation: the Hyderabad, India case. *Annals of the Association of American Geographers*.
- Ensink, J.H.J., **C.A. Scott**, S. Brooker, S. Cairncross. Submitted, in review. Sewage disposal in the Musi River, India: water quality remediation through irrigation infrastructure. *Water Research*.
- Scott, C.A.** In preparation. Groundwater. Encyclopedia of Geography (invited contribution). SAGE Publications, Thousand Oaks, California.
- Scott, C.A.** In preparation. Energy boom and groundwater bust in Mexico. *To be submitted to Annals of the Association of American Geographers*.
- Scott, C.A.**, E. Halper, S. Yool, A.C. Comrie. In preparation. The evolution of urban heat island and water demand. *To be submitted to Water Resources Research*.

- Scott, C.A.,** R.G. Varady. In preparation. Information flows and policy: Climate and transboundary waters in the U.S.-Mexico borderlands. *To be submitted to Natural Resources Journal.*
- Scott, C.A.,** K.J. Ormerod, A. Browning-Aiken. In preparation. Water reuse, scarcity and growth: Public perceptions of risk and amenity. *To be submitted to Growth and Change.*
- Scott, C.A.,** N. Pineda-Pablos. In preparation. Negotiating urban-rural resource regimes: Water-wastewater loops and the institutional dynamics of rapid urban growth. *To be submitted to Environment and Planning C: Government and Policy.*
- Diener, S.W., J.H.J. Ensink, F.P. Amerasinghe, **C.A. Scott.** In preparation. Application of a biotic index for rapid water quality assessment in the highly polluted Musi River in India. *To be submitted to Journal of Environmental Quality.*
- Scott, C.A.,** P. Vandervoet, S. Megdal. In preparation. Santa Cruz transboundary aquifer assessment: water resources and institutions. *Water Resources Research Center Report.*

OTHER PUBLICATIONS – Conference Proceedings

- Hoover, J., **C.A. Scott.** 2008. Water, electric power and growth in southern Arizona. In *Proceedings of American Institute of Professional Geologists and Arizona Hydrological Society Symposium “Changing Waterscapes and Water Ethics for the 21st Century.”* Flagstaff, Arizona, September 20 – 24, 2008.
- Ela, W., C. Graf, T. Poulson, J. Baygents, J. Theron, P. Fox, **C.A. Scott.** 2008. Salinity management and desalination technology for brackish water resources in the arid West. Summary report of workshop on “Improving Salinity Management and Desalination Technology for Brackish Resources in the Arid West” Sponsored by Arizona Water Institute, Bureau of Reclamation. June, 2008.
- Pepper, I., R. Arnold, G. Bayraksan, C. Choi, K. Lansey, **C.A. Scott.** 2008. Conjunctive decentralized dual water distribution systems. Paper WDSA2008_117, 10th *Water Distribution System Analysis Conference*, Kruger National Park, South Africa, August 17-20, 2008.
- Scott, C.A.,** R.G. Varady, A. Browning-Aiken, T.W. Sprouse. 2007. Water and energy management challenges on the Arizona-Mexico border. In *Proceedings of Southwest Hydrology and Arizona Hydrological Society Regional Water Symposium “Sustainable Water, Unlimited Growth, Quality of Life: Can We Have It All?”* Tucson, Arizona, August 29 – September 1, 2007.
- Scott, C.A.,** P. Wester, C. Garcés R. 1998. Integración vertical de funciones transferidas para el manejo de las cuencas: observaciones conceptuales. (Vertical integration of functions transferred to users in basin management: conceptual observations). In *Memoria del III Seminario Internacional sobre Transferencia de Sistemas de Riego.* Gómez Palacio, Dgo., México. Sept. 2-4, 1998. Colegio de Postgraduados, Montecillo, México.
- Scott, C.A.,** M.F. Walter, B.J. Dibeler, J.R. Frankenberger. 1996. Hydrologic land use classification with thematic and spatial inputs. *Proceedings Watershed Restoration and Management Symposium*, Syracuse NY, July 14-17, 1996. American Water Resources Association, Herndon VA.

OTHER PUBLICATIONS – Working Papers

- Bouma, J.A., **C.A. Scott**. 2006. The possibilities for dryland crop yield improvement in India's semi-arid regions – observations from the field. Comprehensive Assessment of Water Management in Agriculture *Discussion Paper No. 3*. International Water Management Institute, Colombo, Sri Lanka.
- Sakthivadivel, R., K. Bhattacharya, **C.A. Scott**. 2004. Biophysical and institutional factors in watershed management: a comparative analysis of four pilot watershed projects in India's tribal belt. *Working Paper No. 88*. International Water Management Institute, Colombo, Sri Lanka.
- Narayana, P., **C.A. Scott**. 2004. Effectiveness of legislative controls on groundwater extraction. Discussion Paper, IWMI-TATA Water Policy Programme 3rd Partners Meet, IWMI-TATA Water Policy Program, Anand, India.
- Sivamohan, M.V.K., **C.A. Scott**. 1992. The command area development programme in India: a policy perspective. *Irrigation Management Network Paper 20*, Overseas Development Institute and International Irrigation Management Institute, London, UK, October.
- Brown, N., **C.A. Scott**, et al, 1991. Analysis of agroforestry at Plan Sierra, Dominican Republic. In L.E. Buck and J.P. Lassoie (eds.). Agroforestry Planning and Evaluation in Marginal Areas: Exercises in Program Design. *Natural Resources Research and Extension Series No. 37*, Department of Natural Resources, Cornell University, Ithaca, NY, December.
- Scott, C.A.**, J.R. Gupta. 1990. Forest resource conservation and development plan: Shivalik Hills. *Sustainable Forest Management Working Paper Series No. 6*, Ford Foundation, New Delhi.

OTHER PUBLICATIONS – Book Reviews and Other Articles

- Scott, C.A.**, P. Drechsel, C. Moe (drafted on behalf of 30 experts). 2008. The Accra Consensus: agenda for research, capacity building & action on the safe use of wastewater and excreta in agriculture. www.iwmi.cgiar.org/Research_Impacts/Research_Themes/Theme_3/Accra_Consensus.aspx
- Scott, C.A.** 2008. Data management and exchange: challenges in a multi-national and multi-disciplinary environment/ El manejo y el intercambio de datos: desafíos en un ambiente multinacional y multidisciplinario. *Inter-American Institute for Global Change Research Newsletter*, Issue No. 1/2008: 25-26.
- Scott, C.A.**, R.G. Varady, A. Browning-Aiken, T.W. Sprouse. 2007. Linking water and energy along the Arizona/Sonora border. *Southwest Hydrology* 6 (5): 26-27,31.
- Banister, J.M., **C.A. Scott**. 2007. Descentralización de los recursos hidráulicos de México: por qué tiene importancia la historia (Decentralizing Mexico's Water Resources: Why History Matters). *Sonárida* 12(23): 20-23.
- Puskur, R., J. Bouma, **C.A. Scott**. 2004. Sustainable livestock production in semi-arid watersheds. *Economic and Political Weekly* XXXIX (31): 3477-3483.
- Shah, T., **C.A. Scott**, S. Buechler. 2004. A decade of water sector reforms in Mexico: lessons for India's new water policy. *Economic and Political Weekly* XXXIX (4): 361-370.
- Scott, C.A.**, O. Al-Jayyousi. 2003. Conference Report: Water management in the future: An intergenerational dialogue, Kyoto, Japan, March 2003. *Water International* 28(4): 544-546.
- Scott, C.A.** 2001. Book Review: Water Management in Islam (by N.I. Faruqui, A.K. Biswas, M.J. Bino, eds.) *International Journal of Water Resources Development* 17(4): 647-649.
- Scott, C.A.** 1989. A pilgrimage to Gangotri: Himalayan source of the River Ganga. *Sanskriti* 2 (1&2).

Scott, C.A. 1988. Medbundi: soil and water conservation in Rajasthan. *Indian Architect and Builder*. December.

Joshi, A., **C.A. Scott**, N. Khetan. 1987. *Mitti Jal Ko Bachao* (Hindi, *Save Soil and Water*, farmers' field manual). *Seva Mandir Prakashan*, Udaipur, India.

SELECTED SCHOLARLY PRESENTATIONS AND ACTIVITIES IN PROFESSIONAL MEETINGS (+ = invited)

Colloquia

- 2007 + Wastewater use in irrigated agriculture: closing the rural-urban-rural water loop. *Departmental Seminar Series (Soil, Water & Environmental Science)*, University of Arizona, 19 February 2007.
- 2007 + The water-energy nexus in Mexico: groundwater sustainability along the border with the United States. *Departmental Seminar Series (Hydrology & Water Resources)*, University of Arizona, 21 February 2007.

Seminars

- 2006 + Mapping root zone soil moisture using remotely sensed optical imagery. Physical Geography (GEOG 696C) seminar, Dept. Geography & Regional Development, 21 September 2006.
- 2007 + Conjunctive management of surface and groundwater. Arizona Water Policy (SWES 596B) seminar, Water Resources Research Center, University of Arizona, 19 January 2007.
- 2007 + Irrigated area mapping in heterogeneous landscapes with MODIS time series, ground truth and census data, Krishna Basin, India. Remote Sensing for the Study of Planet Earth (OPTI 590) seminar, 26 April 2007.

Symposia

- 2008 + Perceptions of wastewater: users and institutions for beneficial use. *Wastewater Irrigated Food: Consumer Health Risk Assessment, On-farm and Off-farm Options for Health Risk Mitigation, and Wastewater Governance in Low-income Countries*. Symposium organized by International Development Research Centre, International Water Management Institute, World Health Organization, Accra, Ghana, 6-9 October 2008.
- 2008 + Session chair: Energy and Water Ethics. *American Institute of Professional Geologists and Arizona Hydrological Society Symposium "Changing Waterscapes and Water Ethics for the 21st Century."* Flagstaff, Arizona, 20 – 24 September 2008.
- 2008 Adaptive water resources management under climatic uncertainty in western North America (and member of workshop organizing committee). *Regional Climate Forum for Northwest Mexico and the Southwest United States* (Centro de Investigación Científica y de Educación Superior de Ensenada and NOAA), Ensenada, Baja California, Mexico, 10-11 April 2008.

- 2007 + Water and energy management challenges on the Arizona-Mexico border. *Southwest Hydrology and Arizona Hydrological Society Regional Water Symposium*, Tucson, 31 August 2007.
- 2007 Session chair: Coupled water and energy demand in the Southwest and U.S.-Mexico border region. *Southwest Hydrology and Arizona Hydrological Society Regional Water Symposium*, Tucson, 31 August 2007.
- 2007 Energy boom and groundwater bust: Mexico's water-energy nexus with implications for the U.S. border region. *First Western Forum on Energy and Water Sustainability*, Bren School of Environmental Science & Management, Univ. of California, Santa Barbara, 22 March 2007.
- 1999 Remote Sensing Assessment of the Extent of Groundwater Irrigation in the Lerma-Chapala Basin, Mexico, *International Symposium on Integrated Water Management in Agriculture*, INIFAP and IMTA, Gómez Palacio, Mexico, 16-18 June 1999.
- 1999 + Conjunctive Management of Surface Water and Groundwater in the Middle Río Lerma Basin, Mexico, *International Workshop on Integrated River Basin Management in Latin America*, International Water Resources Association, Mexico City, 26-28 April 1999.
- 1999 Interactive, Real-time Simulation of Conjunctive Surface and Groundwater Management with Mexican Water Professionals. Hands-on module presented at training on *Integrated River Basin Management*, Third World Centre for Water Management, Mexico City, 29 April 1999.
- 1998 Integración Vertical de Funciones Transferidas para el Manejo Sostenible de las Cuencas: Observaciones Conceptuales, *III Seminario Internacional: Transferencia de Sistemas de Riego*, Colegio de Postgraduados, Torreón, Mexico, 2-5 Sept. 1998.
- 1997 Tile Drain Phosphorus Export from Manure-Applied Land, *National Water Quality Watershed Project Symposium*, USDA and USEPA, Washington DC, 22-26 September 1997.
- 1996 Hydrologic Land Use Classification with Thematic and Spatial Inputs, *Watershed Restoration and Management Symposium*, American Water Resources Association, Syracuse NY, 14-17 July 1996.
- 1992 Who Participates in Whose Irrigation Management? A Case of Government Involvement in Farmer-Managed Irrigation in the Shivalik Hills, *National Workshop on Farmers' Participation in the Management of Irrigation*, Administrative Staff College of India, Hyderabad, India, February 1992.
- 1992 Streamside Jackwell and Discharge Regulator for Pressurized Systems, *Workshop on Irrigation Design for Hill/Mountain Regions*, International Irrigation Management Institute, Kathmandu, Nepal, January 1992.
- 1991 Workshop Report: Reconversion of Wasteland into Agricultural Land, *Sustainable Development and Biodiversity Symposium*, Cornell University, Ithaca, USA, Sept. 1991.
- 1988 The Depur-Dolpura-Shyampura Social Forestry Project, *Conference on Small Watershed Management*, Society for Promotion of Wasteland Development, New Delhi, India, November 1988.

Conferences

- 2009 + Rural vulnerability to water resources variability under climatic uncertainty in western North America, for session "The Water Wars: Water as a Commodity or as a Human Right", *Americanist Meetings*, Mexico City, July 2009.

- 2009 Session chair: Water, Energy, and Global Change (co-sponsored by Water Resources and Energy & Environment Specialty Groups). *Association of American Geographers Annual Meeting*, Las Vegas, 22-27 March 2009.
- 2009 The evolution of urban heat island and water demand. *American Meteorological Society 89th Annual Meeting*, Phoenix, 11-15 January 2009.
- 2008 Session chair: H42 Adaptation and Mitigation under Climate Change and Uncertainty. *American Geophysical Union Fall Meeting*, San Francisco, 15-19 Dec. 2008.
- 2008 Cactus, riparian habitat, and turf grass: water budget and policy implications of vegetation change under urban heat island and effluent irrigation in the southwest U.S. *American Geophysical Union Fall Meeting*, San Francisco, 15-19 Dec. 2008.
- 2008 Building shared vision: assessment of transboundary aquifers along the United States - Mexico border. *International Conference on Water Scarcity, Global Changes, and Groundwater: Management Responses*, University of California - Irvine, UNESCO, USGS, 1-5 December 2008.
- 2008 Groundwater rights in Mexican agriculture: spatial distribution and social and economic determinants. *Association of American Geographers Annual Meeting*, Boston, 19 April 2008.
- 2007 Appropriation of Río San Juan water by Monterrey city, Mexico: implications for agriculture and basin water sharing. *Association of American Geographers Annual Meeting*, San Francisco, 17 April 2007.
- 2006 Urban wastewater impacts on the spatial distribution of solutes and microbial constituents in the Musi River, India. *American Geophysical Union Spring Meeting*, Baltimore, 23 May 2006.
- 2005 + Soil and water quality under wastewater irrigation (plenary keynote), *International Soil Science Society Conference*, New Delhi, 28 January 2005.
- 2004 Wastewater use in irrigated agriculture, *World Water Week*, Stockholm, 15-20 August 2004.
- 2004 + Groundwater in the Indus-Ganges Basin: energy supply and pricing impacts, *World Water Week*, Stockholm, 15-20 August 2004.
- 2003 Groundwater overdraft reduction through agricultural energy policy, *III World Water Forum*, Kyoto, 21-24 March 2003.
- 2001 Facing water scarcity in Jordan, *Strategies for Water Supply Development/ Management in Developing Nations*, *American Geophysical Union Annual Meetings*, Boston, 29 May - 2 June 2001.
- 1997 Monitoring and Research to Assess the Water Quality Impacts of Best Management Practices, *Agricultural Environmental Management Conference*, Natural Resources Conservation Service, Auburn NY, 28 May 1997.
- 1996 Phosphorus Transport in Spring Snowmelt Runoff (poster). *American Geophysical Union Fall Meeting*, San Francisco, December 1996.
- 1991 Soil Moisture Enhancement and Groundwater Recharge Through the Integration of Vegetative and Structural Measures in Indian Semi-Arid Zone Watersheds, *European Geophysical Society Conference*, Katlenburg-Lindau, Germany, April 1991.
- 1987 Cover the Earth: Plasters for Mud Buildings, *Housing and Urban Development Conference*, Trivandrum, India, November 1987.
- 1987 Ultraviolet Sterilization of Drinking Water, *International Conference on Resource Mobilization for Drinking Water and Sanitation in Developing Countries*, Water and Sanitation for Health (WASH), San Juan, Puerto Rico, May 1987.

ENGAGEMENT WITH POLICY MAKERS (+ = invited)

- 2008 + Water, energy, and urban growth in the desert. *Sustainable Tucson Forum*, Tucson, November 12, 2008.
- 2008 *Los Flujos de Información Climática en la Costa Oeste de América del Norte* (Climate Information Flows in Western North America). Co-organizer of stakeholder workshop with Comisión Nacional del Agua, National Center for Atmospheric Research, Comisión Estatal del Agua de Sonora, Instituto Mexicano de Tecnología del Agua, Colegio de Sonora, and University of Arizona. Hermosillo, Sonora, Mexico, November 7, 2008.
- 2008 + The global water and sanitation challenge: progress in meeting the Millennium Development Goals. Keynote address at *Focusing Arizona's Water Research* (Arizona Water & Pollution Control Association, Arizona Water Institute), Phoenix, Oct. 29, 2008.
- 2008 + Water and renewable energy with rapid growth in the Arizona-Sonora border region. *Arizona-Mexico Commission, Water Committee*, Phoenix, 20-21 June 2008.
- 2008 + Water resource demands in the Arizona-Sonora border region. *Border Governors Water Working Group, Climate Assessment for the Southwest*, Institute for the Study of Planet Earth, University of Arizona, 2-3 April 2008.
- 2008 + Climate caps on the substitutability of water and energy for growth in the Southwest and Mexico. *Workshop on Climate Change Adaptation for Water Managers*, Biosphere 2, Oracle, Arizona, 5 February 2008.
- 2006 + The dilemma of water management 'regionalization' in Mexico under centralized resource allocation. *Workshop on Integrated Water Resources Management in Latin America*, Rio de Janeiro, 9-11 January 2006.
- 2002 Energy Pricing and Supply for Groundwater Demand Management: Lessons from Mexican Agriculture, *Forward-Thinking Policies for Groundwater Management: Energy, Water Resources, and Economic Approaches*, IWMI, Indian Council for Agricultural Research (ICAR) and Colombo Plan Secretariat, New Delhi, 2 - 6 September 2002.
- 2001 Visualizing the Invisible: Harnessing Local Initiative for Conjunctive Management of Surface and Groundwater, *Indian Groundwater Policy Workshop*, ICAR and IWMI, Karnal, Haryana, 6-8 November 2001.
- 2000 Welcome and opening remarks. Hosted conference *Asignación, Productividad y Manejo de Recursos Hídricos en Cuencas* (Allocation, Productivity and Management of Basin Water Resources), International Water Management Institute, Guanajuato, Mexico, 7-9 May 2000.
- 1999 + Water Scarcity and Food Production Assessments using PODIUM (the Policy Dialogue Model), *Consultation on the Americas Vision on Water for Food* (lead-up to World Water Forum, The Hague), McGill University, Montreal, Canada, 30 June - 2 July 1999.

GRANTS AND CONTRACTS

Note: PI = principal investigator; PM = project manager

Federal

- Pending Coupling Ecohydrological and Social Interactions in Arid Watersheds: Building Resilience of the Sonora and San Pedro River Basins (co-PI, 20%, proposal submitted)

- Nov. 2008). \$1.5 million requested for 2009-2014. National Science Foundation, Coupled Natural-Human Systems.
- Pending Whole-scale Integration of Social and Engineering Research to Manage Water Resources - WISER Water (co-PI, 20%, preproposal approved, full proposal submitted Oct. 2008). \$3.8 million requested for 2009-2014. National Science Foundation, Integrative Graduate Education and Research Traineeship (IGERT).
- 2008-12 Optimization of Dual Conjunctive Water Supply and Reuse Systems with Distributed Treatment for High-Growth Water-Scarce Regions (co-PI, 20%). \$1,999,558, National Science Foundation, Resilient and Sustainable Infrastructures (RESIN).
- 2008-10 Moving Forward: Adaptation and Resilience to Climate Change, Drought, and Water Demand in the Urbanizing Southwestern U.S. & Northern Mexico (co-PI, 33%). \$286,931, National Oceanic & Atmospheric Administration, Sectoral Applications Research Program (SARP).
- 2008 - Transboundary Aquifer Assessment Program (co-PI effective 3/09, 50%). \$164,000, United States Geological Survey.
- 2007-08 Geospatial Analysis of Urban Thermal Gradients: Application to Tucson Arizona's Projected Water Demand (PI, 33%). \$12,000, United States Geological Survey 104B administered by University of Arizona Water Resources Research Center.
- 2005-06 India Climate Forecast Systems - Component of the Disaster Management Support Project (PM, 50%). \$0.56 million, United States Agency for International Development.
- 2002-05 Water-Energy Nexus in Agriculture (PI, 50%). \$0.73 million subcontract under prime contractor P.A. Consulting, \$6 million 2-phase, GSA schedule, United States Agency for International Development.
- 1994-97 Research Associate, New York City Watershed Water Quality. Conducted Ph.D. research on this project funded by NY City Dept. of Environmental Protection; worked with PI Tammo Steenhuis to successfully fund Role of Subsurface Drainage in Transport of Cryptosporidium Parvum Oocysts grant, \$0.184 million, United States Department of Agriculture.

International/Multilateral

- 2007-09 Information Flows and Policy: Use of Climate Diagnostics and Cyclone Prediction for Adaptive Water-Resources Management Under Climatic Uncertainty in Western North America (deputy-PI, 50%). \$147,286, Inter-American Institute for Global Change Research.
- 2007 - Rural and Environmental Water Gradients under Rapid Urban Expansion in Water-Scarce Basins (PI, 100%). \$17,000 (with commitment for \$200,000 in support for 2009-2011), International Water Management Institute.
- 2005-06 Mexico River Forecasting (PM, 50%) \$0.36 million, Comisión Nacional del Agua (CNA) Gerencia de Aguas Superficiales e Ingeniería de Rios.
- 2005-06 Romania Destructive Waters Abatement and Management (co-PM, 50%). \$0.72 million, Romanian Ministry of Environment & Water Management.
- 2004-05 Health & Food Safety from Expanding Wastewater Irrigation, South Asia (PI, 20%). \$1.05 million competitive grant from German Cooperation Ministry (BMZ).
- 2004-05 Urban & Peri-Urban Agriculture, South Asia (co-PI, 10%). \$0.85 million, Netherlands Cooperation Department (DGIS) and Canadian International Development Research Centre.

- 2004-05 Agricultural Water Productivity in the Krishna Basin (PI, 33%). \$0.96 million, Australian Centre for International Agricultural Research.
- 2004-05 Linking Forest and Irrigation Management in the Himalayas (co-PI, 33%). \$0.3 million, Consultative Group on International Agricultural Research, Challenge Program on Water and Food.
- 2002-04 Livestock-Environment-Watershed Interactions (PI, 50%). \$0.29 million, Swiss Development Cooperation and U.N. Food and Agriculture Organization.
- 2002-03 Pro-poor Irrigation Interventions (PI, 100%). \$0.11 million India component of \$1 million larger project, Asian Development Bank.

State

- 2008. Water and Energy Sustainability with Rapid Growth in the Arizona-Sonora Border Region (PI, 50%). \$50,000, Arizona Water Institute.
- 2007. Coupled Water and Energy Demand in the Arizona-Sonora Border Region: Groundwater Pumping, Municipal Water Services, and Electrical Power Interactions (PI, 50%). \$10,000, Arizona Water Institute.

Industry

N/A

Private foundations

- 2008 Water Reuse to Offset Growth-Driven Water Scarcity in the Southwest: From Supply Augmentation to Substitution (PI, 33%). \$99,894 pending, WateReuse Foundation.
- 1997-2000 Irrigation Management, Mexico (PM, 33%). \$1.5 million, Ford Foundation.

PROFESSIONAL MEMBERSHIPS AND BOARDS

- Pending Editorial Board (nominated, appointment pending), *Journal of Water and Health*
- 2006 - Publications Committee, International Water Resources Association
- 2006 - Editorial Board, *Water International*
- 2006 - Association of American Geographers
- 2000 - International Water Resources Association
- 1996 - Registered Professional Engineer (P.E.) – New York State
- 1996 - American Geophysical Union

GRANT REVIEW

- 2008 Water Sustainability Program, University of Arizona – multiple grant proposals review
- 2007 NSF CAREER – grant proposal review
- 2007 Swiss Research Fellow Partnership Program for Agriculture, Forestry, and Natural Resources – grant proposal review
- 2006 Challenge Program on Water and Food, Consultative Group for International Agricultural Research – multiple grant proposals review

EDITORIAL AND JOURNAL REVIEW

- 2008 *Región y Sociedad*
- 2008 *International Journal of Water*
- 2008 *Natural Resources Forum*
- 2008 *Resources, Conservation & Recycling*
- 2008 *Water in Arid and Semi-Arid Zones* (chapter for Springer edited volume)
- 2008 *Journal for Transdisciplinary Research*
- 2008 *Regional Climate Forum abstracts review*
- 2008 *Water Resources Research*
- 2008 *World Development*
- 2008 *Environmental Modeling and Assessment*
- 2008 *Water International*
- 2007 *Cities*
- 2007 *Comprehensive Assessment of Water Management for Agriculture*
- 2007 *Environmental Modeling and Assessment*
- 2007 *Geography Journal*
- 2007 *Paddy & Water Environment*
- 2007 *Professional Geographer*
- 2007 *Resources for the Future Press*
- 2007 *Water International*
- 2007 *World Development*
- 2006 *Environment, Development, and Sustainability*
- 2006 *Water International*
- 2005 *Hydrogeology Journal*
- 2004 *Agriculture, Ecosystems & Environment*
- 2004 *EPA Water Reuse*
- 2004 *Journal of Irrigation & Drainage Engineering*
- 2003 *Water International*
- 2003 *Water Resources Research*
- 2002 *Water Resources Management*
- 2002 *Journal of Irrigation & Drainage Engineering*
- 2002 *Mountain Research & Development*

FOREIGN LANGUAGES

Spanish, Hindi, Nepali, German

SERVICE/OUTREACH (*last 5 years*)

- 2009 - Thematic input to Canada-US-Mexico drought response meeting planned by University of Arizona, Institute for the Study of Planet Earth, February 2009.
- 2008 - Border Governors Water Working Group – provided thematic input.
- 2008. Regional Climate Forum for Northwest Mexico and the Southwest United States – organizing committee member.

- 2008 - International Center for Integrated Water Resources Management (UNESCO's new Category II Center) - provided thematic input to support bringing the science and research component to University of Arizona (Sustainability of Semi-Arid Hydrology and Riparian Areas - SAHRA).
- 2008. Training session for the Iraq Summer Institute coordinated by the Center for Middle Eastern Studies, University of Arizona.
- 2007 - Santa Cruz and San Pedro Transboundary Aquifer Assessment Program - member of binational technical committees.
- 2007. Salinity Management and Desalination Technology for Brackish Water Resources in the Arid West - executive committee member.
- 2007. "Water 101" meeting on water resource challenges at the invitation of Sen. Richard Miranda, Arizona State Senator and Leader of the State Hispanic Caucus.

UNIVERSITY AND DEPARTMENTAL COMMITTEES

- 2007 - Dept. of Hydrology & Water Resources, University of Arizona - affiliated faculty member.
- 2006 - Geography and Regional Development Undergraduate Committee.
- 2006 - Center for Latin American Studies, University of Arizona - affiliated faculty member.
- 2006 - Arid Lands Resource Sciences Graduate Interdisciplinary Program, University of Arizona - faculty member.
- 2006 - Global Change Graduate Interdisciplinary Program, University of Arizona - faculty member.
- 2006 - Institute for the Study of Planet Earth, University of Arizona - affiliated faculty member.

ACADEMIC DISTINCTIONS AND AWARDS

- 2004 Outstanding Paper at IWMI - for **Scott, C.A.**, W.G.M. Bastiaanssen, M. Ahmad Mapping root zone soil moisture using remotely sensed optical imagery (International Water Management Institute).
- 2000-04 Next Generation of Water Leaders, Stockholm International Water Institute and International Water Resources Association.
- 1991 Gamma Sigma Delta (Honor Society of Agriculture).
- 1989-91 Foreign Language and Area Studies Fellowship (Nepali language), Cornell University.
- 1985 Graduated with Distinction, Swarthmore College.

CURRENT STUDENTS AND ACCOMPLISHMENTS

(GRD = Dept. Geography & Regional Development, University of Arizona)

- 2008 - Kathryn Daily (prospective advisee, MA candidate, GRD)
- 2008 - Zachary Sugg (prospective advisee, MA candidate, GRD)

- 2008 - Ashley Coles (prospective advisee, PhD candidate, GRD; currently RA on grant I have funded)

- grant from Inter-American Institute for Global Change Research to attend Joint IAI/NCAR Colloquium “Seasonality and Water Resources in the Western Hemisphere”, Mendoza, Argentina, 6-17 October 2008.

2008 - Kerri Jean Ormerod (MA candidate, GRD)

- 2008 Margaret Trussell Scholarship by the Association of Pacific Coast Geographers Women's Network (\$1000 to explore the social issues in water reuse planning and management within the context of urban growth).
- grants from Institute for Study of Planet Earth and Graduate Student Council, Univ. Arizona to attend and present a paper at the workshop “Waste - The Social Context '08”, Edmonton, Canada, 11-15 May 2008.
- summer 2008 graduate research assistant grant from Water Sustainability Program, Univ. Arizona

2007 - Eve Halper (PhD candidate, GRD)

- successfully holds a job at the US Bureau of Reclamation while completing her dissertation.

2007 - Joseph Hoover (MA candidate, GRD)

- grant from forum organizers to attend and present a paper at the Border Energy Forum XV, Monterrey, Mexico, 23-24 October 2008.

2007 - Michael Babcock (prospective advisee, PhD candidate, Arid Lands Resource Sciences)

GRADUATE STUDENT COMMITTEE MEMBERSHIP

(GRD = Dept. Geography & Regional Development; HWR = Dept. Hydrology & Water Resources, Univ. Arizona)

2008. Tobias Finke (MA, GRD) “Object-Oriented Classification to Map Impervious Surfaces for Hydrologic Models”

2008. Derejeh Gultineh (MA, GRD) “Coalitions and Consensus Building in Portland, Oregon”

2008 - Jennifer Bloxom (MA candidate, Center for Latin American Studies – S. Whiteford, advisor)

2008 - Lissette De La Cruz (PhD candidate, HWR – T. Meixner, advisor)

2008 - Stephen Martin (PhD candidate, GRD)

2007 - Robin Lewis (PhD candidate, GRD)

2007 - Jeff M. Banister (PhD candidate, GRD)

2007 - Rolando Díaz Caravantes (PhD candidate, GRD)

2007. George Saliba (MA, GRD) “Science, Collaboration, and Sustainability in the Upper San Pedro Basin”

PAST STUDENTS/SUPERVISEES AND ACCOMPLISHMENTS

(IWMI = International Water Management Institute)

2004-05 Mattia Celio (doctoral field research, IWMI-India) – PhD candidate, Water, Engineering, and Development Centre, Loughborough University, UK

- 2003-05 Trent W. Biggs (Postdoc, IWMI-India) - 2007 Asst. Professor of Geography, San Diego State University, California
- 2003-04 Shirish Sinha (Doctoral write-up, IWMI-India) - 2007 PhD from Twente University, Netherlands, currently Energy-Water Program Manager, WWF India, New Delhi.
- 2002-05 Jetske Bouma (doctoral field research, IWMI-India) - 2007 PhD in Resource Economics, University of Tilburg, Netherlands
- 2002-05 Jeroen Ensink (doctoral field research, IWMI-India) - 2007 PhD in Public Health, London School of Tropical Hygiene and Medicine, London, UK
- 2002 Carolyn Gerwe (Postdoc, IWMI-India) - 2003-05 Public Policy Fellow, American Association for Advancement of Science, Washington, DC
- 2000 Martin Bolaños, M.S. in Water Management, Colegio de Postgraduados, Mexico
- 1998 Francisco Flores, M.S. in Water Management, Colegio de Postgraduados, Mexico; subsequently PhD from Cornell University, Ithaca, New York
- 1997-2000 Philippus Wester (graduate field research, IWMI-Mexico) - currently PhD (2008) and Assistant Professor (2000-present), Wageningen University, Netherlands