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### EDUCATION

Ph.D. in Agricultural and Biological Engineering, University of Florida, 1996. Dissertation title: “[A Systems Approach to Characterizing Farm Sustainability](#).” Minor in Food and Resource Economics.

M.S. in Agronomy and Soil Science, University of Hawaii, Manoa, 1989. Thesis title: “Influence of Decomposing Organic Material on Aluminum Chemistry and Phytotoxicity.”

B.S. in General Tropical Agriculture, University of Hawaii, Manoa, 1985.

### PROFESSIONAL EXPERIENCE

2015-present	Flagship 2 Leader: <i>Climate Information Services and Climate-Informed Safety Nets</i> , CGIAR research program on Climate Change, Agriculture and Food Security (CAAFS)
2010-2014	Theme 2 Leader: <i>Adaptation through Managing Climate Risk</i> , CGIAR research program on Climate Change, Agriculture and Food Security (CAAFS)
2014-present	Senior Research Scientist, International Research Institute for Climate & Society
2004-2014	Research Scientist, International Research Institute for Climate & Society
2002-2010	Joint Editor-In-Chief, <i>Agricultural Systems</i>
1999-2004	Associate Research Scientist, International Research Institute for Climate & Society
1999	Assistant Scientist, Agricultural and Biological Engineering, University of Florida
1997-1998	Visiting Assistant, Agricultural and Biological Engineering, University of Florida
1996-1997	Post-doctoral Associate, Agricultural and Biological Engineering, Univ. of Florida
1988-89 & 90-91	Research Associate, Agronomy and Soil Science, University of Hawaii
1989-1990	Agriculturalist, Mindanao Baptist Rural Life Center, Davao del Sur, Philippines

### OTHER PROFESSIONAL CONTRIBUTIONS

Member of the Leadership Group that developed the successful proposal for a CGIAR Global Challenge Program on *Climate Change, Agriculture and Food Security (CAAFS)*, 2007-2008.

Delegate representing the Scientific and Technological Communities Major Group at the 16th and 17th sessions of the *UN Commission on Sustainable Development*, 2008-2009.

Member of the International Review Team for Australia’s *Managing Climate Variability R&D Program*, 2006.

Member of the Steering Group for the international *Climate Prediction and Agriculture (CLIMAG)* program of the Earth System Science Partnership (ESSP), 2001-2005.

*Agricultural Systems* Editorial Review Board member (2010-present).

*Climate Risk Management* Editorial Review Board member (2012-present).

Journal reviewer: *African Journal of Agricultural Research*; *African Journal of Plant Science*; *Agricultural Systems*; *Agriculture, Ecosystems and Environment*; *Agronomy Journal*; *Atmosphere-Ocean*; *Biosystems Engineering*; *Climate and Development*; *Climate Research*; *Climate Risk Management*; *Climatic Change*; *Current Opinion in Environmental Sustainability*; *Ecological Applications*; *Ecological Modeling*; *Environmental Management*; *Environmental Science and Policy*; *Eos*; *Field Crops Research*; *Frontiers in Ecology and the Environment*; *Global Environmental Change*; *International Journal of Climatology*; *Journal of Applied Meteorology and Climatology*; *Journal of Arid Environments*; *Journal of Climate*; *Journal of Geophysical Research – Atmospheres*; *Journal of Soil and Water Conservation*; *Journal of the American Water Resources Association*; *Journal of Water Resources Planning and Management*; *Philippine Journal of Development*; *Science*; *Transactions of the American Society of Agricultural and Biological Engineers*; *Weather, Climate and Society*.

## REFEREED PUBLICATIONS

Mishra, A., Ines, A., Das, N., Khedun, P., Singh, V., Sivakumar, B., **Hansen, J.W.**, In press. Anatomy of a local-scale drought: Application of assimilated remote sensing products, crop model, and statistical methods to an agricultural drought study. *Journal of Hydrology*. doi:10.1016/j.jhydrol.2014.10.038

Zebiak, S.E., Orlove, B., Vaughan, C., Muñoz, A.G., **Hansen, J.W.**, Troy, T., Thomson, M., Lustig, A., Garvin, S., 2014. Investigating El Niño-Southern Oscillation and society relationships. *Wiley Interdisciplinary Reviews: Climate Change* 6(1):17-34. doi:10.1002/wcc.294

**Hansen, J.W.**, Zebiak, S., Coffey, K., 2014. Shaping global agendas on climate risk management and climate services: an IRI perspective. *Earth Perspectives* 2014, 1:13. doi:10.1186/2194-6434-1-13

Cooper, P.J.M., Vermeulen, S., **Hansen, J.**, Thornton, P., Ramirez-Villegas, J., Rippke, U., Parker, L., Jones, E., Campbell, B. and Zougmore, R., 2014. Smallholder Agriculture and Climate Variability and Change in Sub-Saharan Africa: Looking Forward to 2050. Chapter 1 in: *Africa Agricultural Status Report: Climate Change and Smallholder Agriculture In Sub-Saharan Africa*. Alliance for a Green Revolution in Africa (AGRA), Nairobi. (Refereed chapter)

Tall, A., **Hansen, J.**, Jay, A., Campbell, B., Kinyangi, J., Aggarwal, P.K. Zougmore, R., 2014. Scaling up climate services for farmers: Mission Possible. Learning from good practice in Africa and South Asia. CCAFS Report No. 13. Copenhagen: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). (Refereed report. Published online at: [www.ccafs.cgiar.org](http://www.ccafs.cgiar.org)).

Ines, A.V.M., Das, N.N., **Hansen, J.W.**, Njoku, E.G., 2013. Assimilation of remotely sensed soil moisture and vegetation with a crop simulation model for maize yield prediction. *Remote Sensing of Environment* 138:149-164.

Mishra, A.K., Ines, A.V.M., Singh, V.P., **Hansen, J.W.**, 2013. Extraction of information content from stochastic disaggregation and bias corrected downscaled precipitation variables for crop simulation. *Stochastic Environmental Research and Risk Assessment* 27:449-457.

Vermeulen, S.J., Aggarwal, P.K., Ainslie, A., Angelone, C., Campbell, B.M., Challinor, A.J., **Hansen, J.W.**, Ingram, J.S.I., Jarvis, A., Kristjanson, P., Lau, C., Nelson, G.C., Thornton, P.K., Wollenberg, E., 2012. Options for support to agriculture and food security under climate change. *Environmental Science and Policy* 15:136-144.

Vermeulen, S., Zougmore, R., Wollenberg, E., Thornton, P., Nelson, G., Kristjanson, P., Kinyangi, J., Jarvis, A., **Hansen, J.**, Challinor, A., Campbell, B., Aggarwal, P., 2011. Climate change, agriculture

and food security: a global partnership to link research and action for low-income agricultural producers and consumers. *Current Opinion in Environmental Sustainability* 4:1-6.

Jarvis, A., Lau, C., Cook, S., Wollenberg, E., **Hansen, J.**, Bonilla, O., Challinor, A., 2011. An integrated adaptation and mitigation framework for developing agricultural research: synergies and trade-offs. *Experimental Agriculture* 47:185-203.

**Hansen, J.W.**, Mason, S., Sun, L., Tall, A., 2011. Review of seasonal climate forecasting for agriculture in sub-Saharan Africa. *Experimental Agriculture* 47:205-240.

**Hansen, J.W.**, Zebiak, S., Baethgen, W., Ines, A.V.M., Osgood, D., 2011. Climate Risk, Information and Market Participation for African Farmers. Pp. 157-175 in: Towards Priority Actions for Market Development for African farmers. Proceedings of an international conference, Nairobi, Kenya, 13-15 May 2009. AGRA and ILRI, Nairobi. (Refereed proceeding)

Ericksen, P., Stewart, B., Eriksen, S., Tschakert, P., Sabates-Wheeler, R., **Hansen, J.**, Thornton, P., 2010. Adapting Food Systems. Pp. 115-143 in: Ingram, J.S.I., P.J. Ericksen and D.M. Liverman (Eds.), Global Environmental Change and Food Security. Earthscan, London. (Refereed book chapter)

Ines, A.V.M., **Hansen, J.W.**, Robertson, A.W., 2010. Enhancing the utility of daily GCM rainfall for crop yield prediction. *International Journal of Climatology*. 31:2168-2182

**Hansen, J.W.**, Mishra, A., Rao, K.P.C., Indeje, M., Ngugi, R.K., 2009. Potential value of GCM-based seasonal rainfall forecasts for maize management in semi-arid Kenya. *Agricultural Systems* 101:80-90.

Mishra, A., **Hansen, J.W.**, Dingkuhn, M., Baron, C., Traoré, S.B., Ndiaye, O., Ward, M.N., 2008. Sorghum yield prediction from seasonal rainfall forecasts in Burkina Faso. *Agricultural and Forest Meteorology* 148:1798-1814.

Meza, F.J., **Hansen, J.W.**, Osgood, D., 2008. Economic value of seasonal climate forecasts for agriculture: review of ex-ante assessments and recommendations for future research. *Journal of Applied Meteorology and Climatology* 47:1269-1286.

Baigorria, G.A., **Hansen, J.W.**, Ward, M.N., Jones, J.W., O'Brien, J.J., 2008. Regional atmospheric circulation and surface temperatures predicting cotton yields in the southeastern USA. *Journal of Applied Meteorology and Climatology* 47:76-91.

Peiris, T.S.G., **Hansen, J.W.**, Zubair, L., 2008. Use of seasonal rainfall in forecasting annual national coconut production in Sri Lanka: an integrated approach. *International Journal of Climatology* 28:103-110.

**Hansen, J.W.**, Baethgen, W., Osgood, D., Ceccato, P., Ngugi, R.K., 2007. Innovations in climate risk management: protecting and building rural livelihoods in a variable and changing climate. *Journal of Semi-Arid Tropical Agricultural Research* 4(1). (published online at <http://www.icrisat.org/Journal/specialproject.htm>).

Robertson, A.W., Ines, A.V.M., **Hansen, J.W.**, 2007. Downscaling of seasonal precipitation for crop simulation. *Journal of Applied Meteorology and Climatology* 46:677-693.

Ines, A.V.M., **Hansen, J.W.**, 2006. Bias correction of daily GCM rainfall for crop simulation studies. *Agricultural and Forest Meteorology* 138:44-53.

**Hansen, J.W.**, Challinor, A., Ines, A.V.M., Wheeler, T., Moron, V., 2006. Translating climate forecasts into agricultural terms: advances and challenges. *Climate Research* 33:27-41.

**Hansen, J.W.**, 2005. Integrating seasonal climate prediction and agricultural models for insights into agricultural practice. *Philosophical Transactions of the Royal Society B* 360:2037-2047.

**Hansen, J.W.**, Ines, A.V.M., 2005. Stochastic disaggregation of monthly rainfall data for crop simulation studies. *Agricultural and Forest Meteorology* 131:233-246.

Selvaraju, R., Meinke, H., **Hansen, J.W.**, 2004. Approaches allowing smallholder farmers in India to benefit from seasonal climate forecasting. In *New Directions for a Diverse Planet: Proceedings for the 4th International Crop Science Congress, Brisbane, Australia, 26 September - 1 October 2004* (ed. T. Fischer, N. Turner, J. Angus, L. McIntyre, M. Robertson, A. Borrell & D. Lloyd). Gosford, Australia: The Regional Institute Ltd. (published online at <http://www.cropscience.org.au/icsc2004/>) (Refereed proceeding)

**Hansen, J.W.**, 2004. Can smallholder farmers benefit from seasonal climate forecasts? In *New Directions for a Diverse Planet: Proceedings for the 4th International Crop Science Congress, Brisbane, Australia, 26 September - 1 October 2004* (ed. T. Fischer, N. Turner, J. Angus, L. McIntyre, M. Robertson, A. Borrell & D. Lloyd). Gosford, Australia: The Regional Institute Ltd. (published online at <http://www.cropscience.org.au/icsc2004/>) (Refereed proceeding)

Selvaraju, R., Meinke, H., **Hansen, J.W.**, 2004. Climate information contributes to better water management of irrigated cropping systems in Southern India. In *New Directions for a Diverse Planet: Proceedings for the 4th International Crop Science Congress, Brisbane, Australia, 26 September - 1 October 2004* (ed. T. Fischer, N. Turner, J. Angus, L. McIntyre, M. Robertson, A. Borrell & D. Lloyd). Gosford, Australia: The Regional Institute Ltd. (published online at <http://www.cropscience.org.au/icsc2004/>) (Refereed proceeding)

**Hansen, J.W.**, Potgieter, A., Tippet, M., 2004. Using a general circulation model to forecast regional wheat yields in Northeast Australia. *Agricultural and Forest Meteorology* 127:77-92.

Kumar, K.K., Kumar, R.K., Ashrit, R.G., Deshpande, N.R., **Hansen, J.W.**, 2004. Climate impacts on Indian Agriculture. *International Journal of Climatology* 24:1375-1393.

**Hansen, J.W.**, Indeje, M., 2004. Linking dynamic seasonal climate forecasts with crop simulation for maize yield prediction in semi-arid Kenya. *Agricultural and Forest Meteorology* 125:143-157.

**Hansen, J.W.**, 2002. Realizing the potential benefits of climate prediction to agriculture: issues, approaches, challenges. *Agricultural Systems* 74:309-330.

Podestá, G., Letson, D., Messina, C., Royce, F., Ferreyra, Jones, J., Llovet, I., **Hansen, J.**, Grondona, M., O'Brien, J. 2002. Use of ENSO-related climate information in agricultural decision making in Argentina: a pilot experience. *Agricultural Systems* 74:371-392.

Royce, F.S., J.W. Jones, **Hansen, J.W.**, 2001. Model-based optimization of crop management for climate forecast applications. *Transactions of the American Society of Agricultural Engineers* 44:1319-1327.

Letson, D., **Hansen, J.W.**, Hildebrand, P.E., Jones, J.W., O'Brien, J.J., Podestá, G., Royce, F., Zierden, D., 2001. Florida's agriculture and climatic variability: reducing vulnerability. *Florida Geographer* 32:38-57.

Hammer, G.L., **Hansen, J.W.**, Phillips, J., Mjelde, J.W., Hill, H.S.J., Love, A., Potgieter, A., 2001. Advances in application of climate prediction in agriculture. *Agricultural Systems* 70:515-553.

**Hansen, J.W.**, Mavromatis, T., 2001. Correcting low-frequency variability bias in stochastic weather generators. *Agricultural and Forest Meteorology* 109:297-310.

Mavromatis, T., **Hansen, J.W.**, 2001. Interannual variability characteristics and simulated crop response of four stochastic weather generators. *Agricultural and Forest Meteorology* 109:283-296.

**Hansen, J.W.**, Jones, J.W., Irmak, A., Royce, F.S., 2001. ENSO impacts on crop production in the Southeast US. Pp. 55-76 in: Rosenzweig, C., Boote, K.J., Hollinger, S., Iglesias, A., and Phillips, J. (Eds.), *Impacts of El Niño and Climate Variability on Agriculture*. ASA Special Publication no. 63, American Society of Agronomy, Madison, Wis., USA. (Refereed proceeding)

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- Jones, J.W., **Hansen, J.W.**, Royce, F.S., Messina, C.D., 2000. Potential benefits of climate forecasting to agriculture. *Agriculture, Ecosystems and Environment* 82:169-184.
- Messina, C.D., **Hansen, J.W.**, Hall, A.J., 1999. Land allocation conditioned on El Niño-Southern Oscillation phases in the Pampas of Argentina. *Agricultural Systems* 60:197-212.
- Hansen, J.W.**, 1999. Stochastic daily solar irradiance for biological modeling applications. *Agricultural and Forest Meteorology* 94:53-63.
- Hansen, J.W.**, Jones, J.W., Kiker, C.F., Hodges, A.H., 1999. El Niño-Southern Oscillation impacts on winter vegetable production in Florida. *Journal of Climate* 12:92-102.
- Irmak, A., Jones, J.W., Stanley, C.D., **Hansen, J.W.**, Irmak, S., Boote, J.K., 1999. Some effects of an antitranspirant (Vapor Gard) on tomato growth and yield. *Soil and Crop Science Society of Florida Proceedings* 58:118-122.
- Hansen, J.W.**, Irmak, A., Jones, J.W., 1998. El Niño - Southern Oscillation influences on Florida crop yields. *Soil and Crop Science Society of Florida Proceedings* 57:12-16.
- Hansen, J.W.**, Hodges, A., Jones, J.W., 1998. ENSO influences on agriculture in the southeastern United States. *Journal of Climate* 11:404-411.
- Hansen, J.W.**, Jones, J.W., Beinroth, F.H., 1998. Systems-based land use evaluation in the south coast of Puerto Rico. *Applied Engineering in Agriculture* 14:191-200.
- Hansen, J.W.**, Jones, J.W., Knapp, E.B., 1997. Determinants of sustainability of a Colombian hillside farm. *Experimental Agriculture* 33:425-448.
- Hansen, J.W.**, Thornton, P.K., Jones, J.W., Jacobson, B.M., 1997. Toward data standards for enterprise and farm level analysis. Pp. 229-245 in: Teng, P.S., Kropff, M.J., Ten Berge, H.F.M., Dent, J.B., Lansigan, F.P., Van Laar, H.H. (Eds.), *Applications of Systems Approaches at the Farm and Regional Level*. Kluwer Academic Publishers, Dordrecht, The Netherlands. (Refereed proceeding)
- Jones, J.W., Thornton, P.K., **Hansen, J.W.**, 1997. Opportunities for systems approaches at the farm scale. Pp. 1-29 in: Teng, P.S., Kropff, M.J., Ten Berge, H.F.M., Dent, J.B., Lansigan, F.P., Van Laar, H.H. (Eds.), *Applications of Systems Approaches at the Farm and Regional Level*. Kluwer Academic Publishers, Dordrecht, The Netherlands. (Refereed proceeding)
- Hansen, J.W.**, Jones, J.W., 1996. A systems framework for characterizing farm sustainability. *Agricultural Systems* 51:181-201.
- Hansen, J.W.**, 1996. Is agricultural sustainability a useful concept? *Agricultural Systems* 50:117-144.
- Thornton, P.K., **Hansen, J.W.**, 1996. A note on regressing real-world data on model output. *Agricultural Systems* 50:411-414.
- Thornton, P.K., **Hansen, J.W.**, Knapp, E.B., Jones, J.W., 1995. Designing optimal crop management strategies. Pp. 333-351 in: Bouma, J., Kuyvenhoven, A., Bouman, B.A.M., Luyten, J.C., and Zandstra, H.G. (Eds.), *Ecoregional Approaches for Sustainable Land Use and Food Production*. Kluwer Academic Publishers, Dordrecht, The Netherlands. (Refereed proceeding)
- Pickering, N.B., **Hansen, J.W.**, Jones, J.W., Wells, C.M., Chan, V.K., Godwin, D.C., 1994. WeatherMan: a utility for managing and generating daily weather data. *Agronomy Journal* 86:332-337.
- Caldwell, R.M., **Hansen, J.W.**, 1993. Simulation of multiple cropping systems with CropSys. Pp. 397-412 in: Penning de Vries, F.W.T., Teng, P., and Metselaar, K. (Eds.), *Systems Approaches for*

Agricultural Development, Vol. 2. Kluwer Academic Publishers, Dordrecht, The Netherlands.  
(Refereed proceeding)

### **SUBMITTED**

Das, N.N., Ines, A.V.M, Mishra, A., **Hansen, J.W.**, Doorn, B. Application and advantages of SMAP-like soil moisture data in estimating and forecasting crop yields. Submitted to *J. Hydrometeorology*.

### **BOOKS, EDITED VOLUMES**

Sivakumar, M.V.K., **Hansen, J.W.** (Editors), 2007. *Climate Prediction and Agriculture: Advances and Challenges*. Springer, New York.

**Hansen, J.W.**, Sivakumar, M.V.K., Bates, B.C. (Guest editors), 2006. *Advances in Applying Climate Prediction in Agriculture*. Special issue of *Climate Research* 33(1).

**Hansen, J.W.** (Guest editor), 2002. *Applying Seasonal Climate Prediction to Agricultural Production*. Special issue of *Agricultural Systems* 74(3), Elsevier, Amsterdam. 172 pp.

IRI, 2000. *Proceedings of the International Forum on Climate Prediction, Agriculture and Development*. IRI-CW/00/1. International Research Institute for Climate Prediction, Palisades, New York. (Co-organizer and proceedings co-editor)

### **TECHNICAL REPORTS**

Schuetz, T., Förch, W., Thornton, P., Wollenberg, L., **Hansen, J.**, Jarvis, A., Coffey, K., Bonila-Findji, O., Loboguerrero Rodriguez, A.M., Martínez Barón, D., Aggarwal, P., Sebastian, L., Zougmore, R., Kinyangi, J., Vermeulen, S., Radeny, M., Moussa, A., Sajise, A., Khatri-Chhetri, A., Richards, M., Jost, C., Jay, A., 2014. *Lessons in Theory of Change from a Series of Regional Planning Workshops*. Workshop Series Report. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). (Available online at: <http://hdl.handle.net/10568/52315>)

Venkatasubramanian, K., Tall, A., **Hansen, J.W.**, Aggarwal, P.K., 2014. *Assessment of India's Integrated Agro-meteorological Advisory Service program from a farmer perspective*. CCAFS Working Paper no. 54. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. (Available online at: <http://hdl.handle.net/10568/43733>)

Garvin, S., **Hansen, J.W.**, 2014. *Mobilizing a CGIAR Agricultural Insurance Research Community*. CCAFS Workshop Report. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). (Available online at: <http://hdl.handle.net/10568/41938>)

Sivakumar, M.V.K., Collins, C., Jay, A., **Hansen, J.**, 2014. *Regional priorities for strengthening climate services for farmers in Africa and South Asia*. CCAFS Working Paper no. 71. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. (Available online at: <http://hdl.handle.net/10568/41599>)

May, S., **Hansen, J.**, Tall, A., 2013. *Workshop Report: Developing a Methodology to Communicate Climate Services for Farmers At Scale*. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. (Available online at: <http://hdl.handle.net/10568/33443>)

Ndiaye O, Moussa AS, Seck M, Zougmore R, **Hansen J.**, 2013. *Communicating seasonal forecasts to farmers in Kaffrine, Senegal for better agricultural management*. Case Study prepared for Hunger, Nutrition, Climate Justice 2013, A New Dialogue: Putting People at the Heart of Global Development. Dublin, Ireland: Irish Aid. (Available online at: <http://cgspace.cgiar.org/handle/10568/27888>)

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Asia Workshop Report. CCAFS Working Paper no. 40. CGIAR Research Program on Climate Change, Agriculture and Food Security (CAAFS). Copenhagen, Denmark. (Available online at: <http://hdl.handle.net/10568/27833>)

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**Hansen, J.W.**, M. Tippett, M. Bell, and A.V.M. Ines, 2010: Linking Seasonal Forecasts into RiskView to Enhance Food Security Contingency Planning. IRI Technical Report 10-13, International Research Institute for Climate and Society, Palisades, NY, 12 pp. (Available online at <http://iri.columbia.edu/publications/id=1035>)

Zubair, L., **Hansen, J.**, Yahiya, Z., Siriwardhana, M., Chandimala, J., Razick, S., and Tennakoon, U., 2010. Adaptation and Impact Assessment to Climate Change of Plantations in Sri Lanka. IRI Tech. Rep. No. 10-06, International Research Institute for Climate and Society, Palisades, NY, USA. 40 pp. (Available online at: <http://iri.columbia.edu/publications/id=996>)

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Giannini, A., **Hansen, J.W.**, Holthus, E., Ines, A., Kaheil, Y., Karnauskas, K., McLaurin, M., Osgood, D., Robertson, D., Shirley, K., Vicarelli, M. (alphabetical order), 2009. Designing Index-Based Weather Insurance for Farmers in Central America. IRI Tech. Rep. No. 09-01. International Research Institute for Climate and Society, Palisades, New York, USA. 19 pp. (Project report to the World Bank Commodity Risk Management Group. Authors in alphabetical order.)

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Messina, C.D., Jones, J.W., **Hansen, J.W.**, 2001. Understanding ENSO effects on tomato yields in Florida: a modeling approach. Second International Symposium on Modelling Cropping Systems, Florence, Italy, 16-18 July 2001.

Meinke, H., Aslam, M., Gadgil, S., **Hansen, J.W.**, Kumar, K., and Selvaraju, R., 2001. Agricultural systems, climate and the human dimension: (hard data for soft systems.) (2001 Open Meeting of the Human Dimensions of Global Environmental Change Research Community, Rio de Janeiro, Brazil, 6-8 October 2001. (Available online at [http://sedac.ciesin.org/cgi-bin/OM\\_presentatns2.pl?cgifunction=Search](http://sedac.ciesin.org/cgi-bin/OM_presentatns2.pl?cgifunction=Search)).

Meinke, H., Aslam, M., Gadgil, S., **Hansen, J.W.**, Kumar, K., Selvaraju, R., 2001. Towards resilient farming systems. Second International Symposium on Modelling Cropping Systems, Florence, Italy, 16-18 July 2001.

**Hansen, J.W.**, Phillips, J., Amissah-Arthur, A., 2001. User needs and perceptions of forecast quality: illustrations from the agriculture sector. P. 13 in: Proceedings of the Workshop on Forecast Quality, October 10, 2000, Palisades, New York. IRI-CW/01/1. International Research Institute for Climate Prediction, Palisades, New York.

Messina, C.D., **Hansen, J.W.**, Hall, A.J., Podestá, G., Magrin, G.O., 2000. Climate signals, crop productivity and farm income in the Pampas of Argentina. 2000 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.

**Hansen, J.W.**, Rosenzweig, C., Goldberg, R. 2000. Global cereal production and the El Niño-Southern Oscillation. 2000 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.

**Hansen, J.W.**, 2000. Generating stochastic daily weather constrained to target monthly means. Summary Report of the Workshop: Linking Climate Prediction Model Output with Crop Model Requirements. IRI-CW/00/2. International Research Institute for Climate Prediction, Palisades, New York.

**Hansen, J.W.**, 2000. Evaluating downscaled climate predictions in agriculturally-relevant terms. Summary Report of the Workshop: Linking Climate Prediction Model Output with Crop Model Requirements. IRI-CW/00/2. International Research Institute for Climate Prediction, Palisades, New York.

- Irmak, A., **Hansen, J.W.**, Jones, J.W., 1999. El Niño-Southern Oscillation influences on Florida Crop Yields. P. 145 in: Graduate Student Forum 1999. Graduate Student Council, University of Florida, Gainesville, FL, USA.
- Podestá, G.P., **Hansen, J.W.**, Jones, J.W., Kiker, C.F., LaRow, T., Legler, D., Letson, D., O'Brien, J.J., Royce, F., 1998. An end-to-end framework for the effective application of ENSO-related climate forecasts in the agricultural sector of Argentina. Abstract of presentation at the IAI Science Session, 79th Annual Meeting of the American Meteorological Society, January 1999, Dallas, Texas, USA.
- Hansen, J.W.**, Jones, J.W., Goddard, L., 1998. Disaggregating climate model predictions for crop simulation applications. In: 1998 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.
- Knapp, E.B., **Hansen, J.W.**, Jones, J.W., 1998. Determinants of farm sustainability in the lower Andes of Southwest Colombia. In: 1998 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.
- Royce, F.S., **Hansen, J.W.**, Jones, J.W., 1998. Optimization of agricultural management using crop models and simulated annealing. In: 1998 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.
- Irmak, A. Jones, J.W., **Hansen, J.W.**, Irmak, S., Stanley, C.D., 1998. The effects of antitranspirant on tomato growth and yield. In: 1998 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.
- Letson, D., Grondona, M. **Hansen, J.**, Magrin, G., Parellada, G., Podestá, G., Royce, F., 1998. Vulnerability of agriculture in Argentina to ENSO-related climatic variability. (Abstract of presentation at XXI International Congress of Latin American Studies Association, 24-26 September 1998. Chicago, IL, USA.
- Hansen, J.W.**, Beinroth, F.H., Jones, J.W., Vázquez, M.A., 1997. Information technology for land evaluation: A case study of southern Puerto Rico. P. 10 in: 1997 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.
- Schulbach, K.F., **Hansen, J.W.**, McNeal, B.L., Jones, J.W., Boote, K.J., Beinroth, F.H., Vazquez, M.A., 1997. Adaptation of CROPGRO to describe growth of bell pepper. P. 16 in: 1997 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.
- Knapp, E.B., **Hansen, J.W.**, Ravnborg, H.M., Jones, J.W., 1995. Reducing aggregation bias and improving stakeholder acceptance in regional systems analysis. P. 70 in: Book of Abstracts, Second International Symposium on Systems Approaches for Agricultural Development, 6-8 December 1995, and Workshop on Application of Simulation and Systems Analysis for Rice Production, 4-5 December 1995. ed. H.H. van Laar, P.S. Teng and M.J. Kropff. International Rice Research Center (IRRI), Los Baños, The Philippines.
- Hansen, J.W.**, Pickering, N.B., 1995. Managing daily weather data using WeatherMan v.2.0. In: 1995 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.
- Hansen, J.W.**, 1995. An object-oriented, process-level farming system simulator. P. 21 in: Thornton, P.K., Bowen, W.T., Wilkens, P.W., Jones, J.W., Boote, K.J., and Hoogenboom, G. (Eds.), Applying Crop Models and Decision Support Systems. IFDC Special Publication SP-22. International Consortium for Agricultural Systems Applications (ICASA), Univ. of Florida and Int. Fertilizer Development Center (IFDC), Muscle Shoals, AL, USA. p. 21.
- Pickering, N.B., **Hansen, J.W.**, Jones, J.W., 1992. WEATHERMAN: A utility for managing and generating daily weather data. In: 1992 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.



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Caldwell, R.M., **Hansen, J.W.**, Fernandez, A., 1991. Comparison of object-oriented and traditional programming methods for multispecies simulations. P. 7 in: Proceedings of the Workshop on Crop Simulation, March 25-27, 1991. Biological Systems Simulation Group, Beltsville, MD, USA.

**Hansen, J.W.**, Yost, R.S., and Hue, N.V., 1988. Influence of decomposing organic material on soil solution aluminum activity and phytotoxicity. P. 198 in: 1988 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.

Hue, N.V., Amien, L.I., **Hansen, J.W.**, 1988. Aluminum detoxification with manures and sewage sludge in strongly acid ultisols of the tropics. Pp. 237-238 in: 1988 Agronomy Abstracts. Am. Soc. Agronomy, Madison, WI, USA.

## **SIGNIFICANT INVITED PRESENTATIONS**

*Climate Services for Smallholder Farmers*. FARMD Webinar, 3 December 2014.

*Under-Exploited Opportunities to Make Rural Livelihoods More Climate Resilient*. International Symposium on Weather and Climate Extremes, Food Security and Biodiversity, George Mason University, Fairfax, Virginia, 20 October 2014.

*Ongoing and Planned CCAFS Initiatives that Support the GFCS*. Meeting on the Implementation Coordination of GFCS, WMO, Geneva, 29 September - 1 October 2014.

*Insurance Mechanisms for Climate Risk Management*. CCAFS Latin America Regional Planning Workshop, CIAT, Cali, Colombia, 18 September 2014.

*Risk management within the Climate Change, Agriculture and Food Security (CCAFS) program of the CGIAR*. CCAFS - World Bank GFDRR Collaboration Meeting, IFPRI, Washington, DC, July 15, 2014.

*Uncertainty, Variability, Risk and Resilience: What Could & Should Household Models Do?* Household Level Modeling in CCAFS, Humid Tropics and Other CRPs. CATIE, Turrialba, Costa Rica, 13-15 May 2014.

*Integrating Climate and Other Information for Agricultural Forecasting*. Managing climate risks to agriculture in Central America: Improving the pull-through of climate science and use of climate data, reanalyses and forecasts to meet user requirements. CATIE, Turrialba, Costa Rica, 28 April - 2 May 2014.

*A CCAFS Perspective on Managing Climate Risks to Agriculture in Central America*. Managing climate risks to agriculture in Central America: Improving the pull-through of climate science and use of climate data, reanalyses and forecasts to meet user requirements. CATIE, Turrialba, Costa Rica, 28 April - 2 May 2014.

*Adaptation through a Resilience Lens: A Flagship 2 Perspective*. CCAFS Science Meeting. San Lorenzo de El Escorial, Spain, 8 April 2014.

*Production Forecasting: Making the Climate – Crop Model Connection*. Integrated Food Security Modeling in Eastern and Southern Africa. Nairobi, Kenya, 10-12 February 2014.

*Challenges and Opportunities for Supporting Smallholder Farmers through Climate Services – At Scale*. Climate Change Group Policy Team Seminar on Climate Services in Agriculture – From Smallholders to Scale. World Bank, Washington, DC, 23 January 2014.

*Climate Information Services: Experiences from CGIAR Research Program on Climate Change,*

*Agriculture and Food Security*. ESA Climate Change, Land and Gender Workshop. Nairobi, Kenya, 17 October 2013.

*Climate and Crop Forecasting Tools within CCAFS*. FAO-WFP-CCAFS joint meeting on Climate, Crop and Food Security Forecasting. FAO, Rome, 9 October 2013.

*Integrating Seasonal Climate Forecasts with Crop Models*. IMCASE Project Inception Workshop, IRRI, Los Banos, Philippines, 3-5 September 2013.

*Climate Information Services: Experiences from CGIAR Research Program on Climate Change, Agriculture and Food Security*. IFAD ESA Climate Change, Land and Gender Workshop, Nairobi, Kenya, 17 October 2013.

*The CCAFS Regional Agricultural Forecasting Toolbox (CRAFT)*. Herramientas para la Adaptación y Mitigación del Cambio Climático en la Agricultura en Centroamérica, Panamá, 6-8 August 2013.

*Workshop Process for Presenting Downscaled Seasonal Forecasts as Probability Distributions*. Workshop on Developing a methodology to communicate climate services at scale through intermediaries for farmer communities in Africa and South Asia, Nairobi, Kenya, 12-14 June 2013.

*Climate Change, Agriculture and Food Security (CCAFS) program of the CGIAR*. IRI Review, Columbia University, New York, 24 June 2013. With K. Coffey.

*CCAFS: Building Climate-Resilient Rural Livelihoods with Climate Information and Services*. IMHEN, Hanoi, Vietnam, 8 May 2013.

*The Role of CPT in CRAFT*. Training Workshop on Launch of CRAFT: CCAFS Regional Agricultural Forecasting Toolbox, Delhi, India, 10 May 2013.

*Climate Risk Management and the CGIAR*. Improving Resilience to Climate Impacts in Ethiopia Through Improved Availability, Access and Use of Climate Information: Dialogue With Users, Addis Ababa, Ethiopia, 3 May 2013.

*What do we mean by “mid-level assessment?”* CSP workshop on Defining a Methodology to Evaluate Climate Services, Lamont-Doherty Earth Observatory, Palisades, New York, 11 March 2013.

*Making Climate Information More Relevant to Smallholder Farmers*. Workshop on Scaling Up Climate Services for Farmers in Africa and South Asia, Saly, Senegal, 10 December 2012.

*Emerging Opportunities to Adapt Agriculture and Food Systems to a Variable Climate*. IRRI, Los Banos, Philippines, 13 November 2012.

*CCAFS Strategy for Climate Services*. ICCS2 Development Day, Brussels, Belgium, 4 September 2012.

*A Case Study of Good Practice in Climate Services from India*. ICCS2, Brussels, Belgium, 5 September 2012. With Kalpana Venkatasubramanian.

*Crop Forecasting within the CCAFS Program*. Workshop on Combining crop models and remote sensing for yield prediction: Concepts, applications and challenges for heterogeneous, smallholder environments, JRC, Ispra, Italy, 13 June 2012.

*Modeling Household Climate Resilience: An Evolving Theme 2 Perspective*. Workshop on Farm-household Modeling with a focus on Food security, Climate change adaptation, Risk management and Mitigation: a way forward, Amsterdam, 23-25 April 2012.

*Adapting to Current Climatic Risks: Global Approaches*. Science-Policy Interface on Climate Change, Agriculture and Food Security, Pulchowk, Nepal, 20 April 2012.

*Adapting to Current Weather Variability*. APAARI-CCAFS-WMO workshop on Climate Smart Agriculture in Asia: Research and Development Priorities, Bangkok, Thailand, 12 April 2012.

*Where are the Emerging Opportunities to Adapt Agriculture to a Variable Climate?* ICRISAT, Patancheru, India, 13 April 2012.

*CCAFS Strategy for Crop Forecasting.* CCAFS workshop on Seasonal Weather Forecasts Linked Pre-Harvest Estimates of Crop Production: Methodological Approaches, Colombo, Sri Lanka, 16 April 2012.

*Integrating Seasonal Climate Forecasts into Crop Forecasts.* CCAFS workshop on Seasonal Weather Forecasts Linked Pre-Harvest Estimates of Crop Production: Methodological Approaches, Colombo, Sri Lanka, 17 April 2012.

*Modeling Household Climate Resilience: An Evolving Theme 2 Perspective.* CCAFS workshop on Farm-Household Modeling with a Focus on Food Security, Climate Change Adaptation, Risk Management and Mitigation: A Way Forward, Amsterdam, The Netherlands, 23 April 2012.

*Index Insurance for Managing Climate-Related Agricultural Risk: Toward a Strategic Research Agenda.* I4-CCAFS Workshop on Index Insurance for Managing Climate-Related Agricultural Risk: Toward a Strategic Research Agenda, IFPRI, Washington, DC, October 27-28, 2011.

*Improving Management of Climate Impacts on Food Security: Toward a Strategic Agenda.* CCAFS Workshop on Improving Management of Climate Impacts on Food Security: Toward a Strategic Research Agenda, Nairobi, Kenya, 10 September 2011.

*Seasonal to Inter-Annual Climate Forecasts and their Applications in Agriculture.* International Workshop on Addressing the Livelihood Crisis of Farmers: Weather and Climate Services, Belo Horizonte, Brazil, 13 July 2010.

*The CGIAR Climate Change, Agriculture and Food Security Challenge Program: Adaptation Pathways Based on Managing Current Climate Risk.* Department of Applied Economics and Management, Cornell University, 12 March 2010.

*Designing Climate-Robust Agriculture.* COP-15 side event, Designing a Climate Robust Agriculture, Holland Climate House, Copenhagen, Denmark, 11 December 2009. With Holger Meinke.

*Climate Change and Agriculture: A Crisis of Opportunity?* Beyond Copenhagen: Scientific Perspectives on Adaptation and Sustainability Water, Agriculture & Terrestrial Resources, Delegation of the European Commission, Washington DC, 1 October 2009. Public seminar series co-organized by American Association for the Advancement of Science, EC Delegation and Sweden Embassy.

*Value-Added Climate Information for Food Security Monitoring.* WFP Food Security Monitoring Stakeholder Consultation, Rome, Italy 18-19 June 2009.

*Climate Risk, Information and Market Participation for African Farmers.* AGRA-ILRI conference, Towards Priority Actions for Market Development for African Farmers, Nairobi, Kenya, 13 May 2009. With Stephen Zebiak, Walter Baethgen, Amor Ines, Daniel Osgood.

*Managing Current Risks and Preparing for Progressive Change: The Twin Pillars of Climate Adaptation.* Climate Change, Agriculture and Food Security, UN, New York, 6 May 2009. Side event at the 17th session of the UN Commission on Sustainable Development.

*Are the Earth's Rural Populations Ready?* Columbia Climate Center symposium, Anthropogenic Climate Change: Are We Ready? Columbia University, New York, 13 November 2008.

*Contributions of Agricultural Systems Modeling to Weather Index Insurance.* Technical Issues in Index Insurance, IRI, Palisades, New York, 7 October 2008. With Walter Baethgen, Amor Ines, James Jones, Holger Meinke, Pasquale Steduto.

*Climate Risk Management, Food Security at the IRI.* IFRC Partnership Meeting on Climate Change and Food Security, Dakar, 17 December 2007. With Sylwia Trzaska.

*Innovations in Climate Risk Management: Protecting and Building Rural Livelihoods in a Variable and Changing Climate.* ICRISAT & CGIAR 35th Anniversary Symposium, “Climate-Proofing Innovation for Poverty Reduction and Food Security,” ICRISAT, Patancheru, India, 24 November 2007. With Walter Baethgen, Dan Osgood, Pietro Ceccato, Robinson Ngugi.

*Innovations in Climate Risk Management.* CIRAD, Montpellier, France, 16 November 2007.

*Innovations in Climate Risk Management: Protecting and Building Rural Livelihoods in a Variable and Changing Climate.* FAO, Rome, 15 November 2007.

*At the Intersection of Two Crises: Responding to Hunger in a Changing Climate.* 12th Annual Mennonite Central Committee-UN Student Seminar: The Tie that Binds, Church Center of the United Nations, New York, 2 November 2007.

*Models for Managing Climate Risk: Predicting Impacts and Assessing Responses.* AGRIDEMA Workshop, Valladolid, Spain, 28 June 2007.

*Climate Risk and the MDG Hunger Target.* Earth Institute Initiatives to Tackle Hunger and Promote Health: Presentation and Discussion with the Congressional Hunger Fellows. Columbia University, New York, 2 February, 2007.

*Assessing Use and Value of Seasonal Climate Forecasts by Smallholder Farmers.* International Association of Agricultural Economists conference, IAAE2006 Australia, Gold Coast, Australia, 15 August 2006. With F. Meza.

*Predicting Crop Response to Drought Using Advance Climate Information: An International Perspective.* 36th Biological Systems Simulation Conference, Fort Collins, Colorado, 11-13 April 2006. With A. Challinor, A.M.V. Ines, A. Mishra, T. Chee-Kiat.

*Managing Risk and Capturing Opportunity in a Variable Climate.* Project Inception Workshop: Making the Best of Climate - Adapting Agriculture to Climate Variability, Nairobi, Kenya, 6-10, February 2006.

*Climate as a Key Driver of Risk.* Stakeholder Workshop on Managing Climate Risk, ICRISAT, Patancheru, India, 9-11 November 2005.

*Long-Lead, Climate-Based Forecasts of Sorghum Yields in Burkina Faso: Approaches and Preliminary Evidence.* AMMA-CIRAD workshop: Monitoring and Forecasting the African Monsoon Impacts on Agriculture and Vegetation, Thiès, Sénégal, 1 December 2005. With A. Mishra, C. Baron, O. Ndiaye, M. Dingkuhn, S. Traore, N. Ward.

*Translating Climate Forecasts into Agricultural Terms: Advances and Challenges.* International Workshop on Climate Prediction and Agriculture: Advances and Challenges. WMO, Geneva, 11 May 2005. With A. Challinor, A. Ines, T. Wheeler, V. Moron.

*Integrating Seasonal Climate Prediction and Agricultural Models for Insights into Agricultural Practice.* Food Crops in a Changing Climate. Royal Society, London, 26 April 2005.

*Crop Forecasting Using Atmospheric General Circulation Models.* Dept. of Meteorology, Univ. of Reading, 25 April 2005.

*Climate Variability and Agriculture: Predicting and Managing the Impacts.* Impact of Climate Variability on Agricultural and Natural Resource Management Symposium. ASA-SSSA-CSSA 96th Annual Meeting, Seattle, 3 November 2004.

*Seasonal Climate Prediction: An Under-exploited Weapon in Our Arsenal against Hunger and Poverty.* Thomas G. Bullen, CFG Memorial Lecture Series in Science and Technology, Iona College, New Rochelle, New York, 21 October 2004.

*Seasonal Climate Forecasts for Agricultural Risk Management*. Gujarat Agricultural University, Anand, Gujarat, India, 7 October 2003.

*Coping with Climate in Poor Countries of the Tropics: Managing Risk and Preparing for Change*. Lamont-Doherty Open House, 4 October 2003. With P. Sanchez.

*Local Opportunities to Respond to Global Climate Teleconnections*. Weather Interpretations for Crop & Pest Management at Different Spatial Scales Symposium. ASA-SSSA-CSSA 94th Annual Meeting, Indianapolis, November 2002.

*Seasonal Climate Forecasts for Agricultural Risk Management*. International Crops Research Institute for the Semi-Arid Tropics, Patancheru, Andhra Pradesh, India, 3 October 2002.

*Seasonal Climate Forecasts for Agricultural Risk Management*. Indian Meteorological Society, Delhi, India, 1 October 2002.

*An International Sampling of Agricultural Applications of Seasonal Climate Forecasts*. Seasonal Climate Forecasts in Agriculture Conference, Tamil Nadu Agricultural University, Coimbatore, India, 26 September, 2002.

*The Use of Climate Forecasts in Agriculture: Experience in the Americas*. USDA Agricultural Outlook Forum 2002. Arlington, Virginia, 21 February 2002.

*Managing Climate Risk in South Asia's Rainfed SAT*. CGIAR International Centers Week special session, "Can Seasonal Climate Prediction Contribute to Food Security, Poverty Reduction and Sustainable Resource Management?" World Bank, Washington, DC, 29 October 2001.

*Linking Agriculture and Climate Prediction through Systems Analysis*. Seminar presented to the Center for Soil and Crop Management Studies, Tamil Nadu Agricultural University, Coimbatore, India, 8 September 2000. With H. Meinke.

*ENSO Impacts on Crop Production in the Southeast US*. Impacts of El Niño and Climate Variability on Agriculture symposium. 92nd ASA-SSSA-CSSA Annual Meeting, Baltimore, 1998.

## **CONFERENCES AND WORKSHOPS (Co-)ORGANIZED**

*Household Level Modeling in CCAFS, Humid Tropics and Other CRPs*. CATIE, Turrialba, Costa Rica, 13-15 May 2014. Sponsor: CCAFS.

*Integrated Food Security Modeling in Eastern and Southern Africa*. Nairobi, Kenya, 10-12 February 2014. Sponsor: CCAFS.

*Mobilizing a CGIAR Agricultural Insurance Research Community*. IFPRI, Washington, DC, 20-22 January 2014. Sponsors: CCAFS, PIM.

*FAO-WFP-CCAFS joint meeting on Climate, Crop and Food Security Forecasting*. FAO, Rome, 9 October 2013.

*Developing a Methodology to Communicate Climate Services for Farmers At Scale*. Nairobi, 12-14 June 2013. Sponsor: CCAFS.

*Scaling Up Climate Services for Farmers in Africa and South Asia*. Saly, Senegal, 10-12 December 2012. Sponsors: CCAFS, CSP, USAID, WMO.

*Combining Crop Models and Remote Sensing for Yield Prediction: Concepts, Applications and Challenges for Heterogeneous Smallholder Environments*. JRC, Ispra, Italy, June 13-14, 2012. Sponsors: CCAFS, JRC.

*Third Annual CCAFS Science Workshop*. Copenhagen, Denmark, 1-2 May 2012. Sponsor: CCAFS.

*Index Insurance for Managing Climate-Related Agricultural Risk: Toward a Strategic Research*

*Agenda*. IFPRI, Washington, DC, 27-28 October 2011. Sponsors: CCAFS, I4, IFPRI.

*Improving Management of Climate Impacts on Food Security: Toward a Strategic Research Agenda*. Nairobi, Kenya, 10 September 2011. Sponsor: CCAFS.

*Climate Change Adaptation and Mitigation in Agriculture Science Workshop*. Playa del Carmen, Mexico, 1-2 December 2010. Sponsor: CCAFS.

*International Workshop on Climate Prediction and Agriculture: Advances and Challenges*. WMO, Geneva, 11-13 May 2005. Sponsors: WMO, START, IRI.

*Advanced Training Institute on Climate Variability and Food Security*. IRI, Palisades, New York, 8-16 July 2002.

*Linking Climate Prediction Model Output with Crop Model Requirements*. IRI, Palisades, New York, 28-29 April 2000. Sponsors: IRI, START.

*International Forum on Climate Prediction, Agriculture and Development*. April 26-28, 2000, Palisades, New York. Sponsors: IRI, START, WMO.

## TEACHING AND MENTORING

Guest lecturer on climate risk management in agriculture, in *Integrative Seminar: Managing Climate Variability and Adapting to Climate Change II* (EESC G4402.001), Columbia University, 2005-2010.

Guest lecturer on use of climate information and analyses that inform decision making in agriculture, in *Regional Dynamics, Climate, and Climate Impacts* (EESC W4404.001), Columbia University, 2005-2006.

Guest lecturer on policy implications of ENSO, *Science and Society* (EESC V1003), Earth and Environmental Science, Columbia University, 2002-2007.

Organized and co-taught *Tailored Climate Forecast Information Workshop* for Zambia Meteorological Department, Livingstone, Zambia, 5-7 September 2005.

Organized and co-taught training workshops on climate applications for agricultural scientists from developing countries, at the International Research Institute for Climate Prediction (9-19 December 2003) and Indian Institute for Tropical Meteorology (12-16 May 2003).

Director and Instructor, *Advanced Training Institute on Climate Variability and Food Security*, IRI, 8-26 July 2002.

Instructor, *Training Institute on Climate and Society in the Asia-Pacific Region*, East-West Center, Honolulu, 5-23 February 2001.

Instructor and Agriculture Mini-project Coordinator, *First IAI/UM Summer Institute on Interdisciplinary Global Change Science in the Americas: Interactions between Seasonal-To-Interannual Climate Variability and Human Systems*, University of Miami, 11-30 July 1999.

Guest lecturer in Simulation of Agricultural and Biological Systems (AGE 5646), University of Florida, 1995 and 1997.

Post-doctoral Associates supervised: Sabine Marx, Amor Ines, Ashok Mishra, Helen Greatrex.

Graduate student committee member: Ayse Irmak, Agricultural and Biological Engineering, University of Florida.

External Ph.D. examiner: N.J. Walker, School of Bioresources Engineering and Environmental Hydrology, University of KwaZulu-Natal, Pietermaritzburg, South Africa (2005). G.A. Baigorria, Wageningen University, The Netherlands (2005). N.K. Gontia, Indian Institute of Technology

Kharagpur, India (2006). M.E. Moeletsi, Soil and Crop and Climate Sciences, University of the Free State, Bloemfontein, South Africa (2011).

Visiting scientists mentored: Carlos Messina (Argentina), Roberto Villalobos (Costa Rica), Angel Villalobos (Mexico), Saseendran Anapalli, Kripan Ghosh (India), Francisco Meza (Chile), Ferdinand Mawunya (Ghana), Meshack Malo (FAO, Ethiopia).