# **CHANNING ARNDT**

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Channing Arndt heads the Transformation Strategies Department at IFPRI/CGIAR. The Department contains four Units-- Development Strategies and Governance, Foresight and Policy Modeling, Technology Policy and Scaling, and Natural Resource Strategies-- and operates with a budget of about 60 million USD. Notable elements housed with the Department include IFPRI's country programs and regional offices, the IMPACT global modeling and RIAPA country modeling suites, the Harvest Plus program, the Program on Biosafety Systems, and IFPRI's work on the interplay between common property, women's empowerment, and local institutions. Channing has 30 years of experience in development economics, with 7 years combined resident experience in Morocco and Mozambique. He has published more than 85 articles in leading academic journals. His recent books include Growth and Poverty in Sub-Saharan Africa; Measuring Poverty and Wellbeing in Developing Countries; and The Political Economy of Clean Energy Transitions, all published by Oxford University Press. He has taken leadership roles in major policy documents such as the Economics of Adaptation to Climate Change for the World Bank and the Second, Third and Fourth National Poverty Assessments for the Government of Mozambique. Channing has an established reputation for building institutional capacity in Mozambique, South Africa, Morocco, and Viet Nam and within the framework of the African Economic Research Consortium. His program of research has focused on growth, agricultural development, poverty measurement, poverty alleviation, market integration, nutrition, gender and discrimination, HIV/AIDS, technological change, trade policy, aid effectiveness, energy, bioenergy, climate variability, and climate change.

# EXPERIENCE

International Food Policy Research Institute and CGIAR, Transformation Strategies Department
Senior Director, September 2022 – present.
International Food Policy Research Institute, Environment and Production Technology Division
Division Director, April 2018 – December 2022.
International Food Policy Research Institute, Development Strategies and Governance
Senior Research Fellow, January 2017 – March 2018.
World Institute for Development Economics Research, United Nations University
Senior Research Fellow, February 2014 – December 2016.
Department of Economics, University of Copenhagen
Professor, January 2008 - January 2014.
World Institute for Development Economics Research, United Nations University
External Project Director, July 2010 – December 2013.
Ministry of Planning and Development, Mozambique
Principal Economic Advisor (Resident), January 2003 – June 2008.
International Food Policy Research Institute
Visiting Research Fellow, September 2002 – December 2003.
Department of Agricultural Economics, Purdue University,
Professor August-December 2007.
Associate Professor 2002 - 2007.
Faculty Associate, Center for Global Trade Analysis, January 1999 – December 2002.
Assistant Professor, January 1998 – July 2002.
Department of Economics, University of Copenhagen.
Assistant Research Professor, September 1996 - December 1997.
Department of Agricultural Economics, Purdue University.
Andrews Fellow and Research Assistant, August 1992 - August 1996.
Directorate of Planning and Economic Affairs, Ministry of Agriculture, Morocco.
Peace Corps Volunteer, June 1990 - August 1992.

# **EDUCATION**

Ph.D. in Agricultural Economics, Purdue University,1996.M.S. in Agricultural Economics, Colorado State University, 1990.B.A. in Economics, The Colorado College, 1986.

# LANGUAGES

English (mother's tongue); Portuguese and French (both out of practice).

### **RECENT RESEARCH MANAGEMENT**

### **One CGIAR**

Over the course of 2021, researchers in the CGIAR were requested to finalize all activity under the Collaborative Research Programs, deliver a new and coherent research program designed to advance the mission of One CGIAR and valued at approximately USD one billion, and continue to deliver on bilateral projects (which represented roughly 75 percent of total funding). This was accomplished. In the process, the Systems Transformation group also succeeded in empowering many younger researchers and expanding diversity of research leadership, particularly with respect to gender. Arndt has been involved in multiple dimensions of the reform process including formulation of the investment plan, serving as a bridge to foster synergies across research initiatives, assisting design team leads with proposals, developing dissemination materials, interacting with funders, and interacting with stakeholders. In addition, Arndt has engaged substantially in the restructuring process including providing inputs into the new organizational structure, communicating to the whole of IFPRI, and working with People and Culture, Performance Management, and Finance.

# EPTD

As Director of EPTD, Arndt concentrated on fundraising, management, and research for impact. With respect to fundraising, Arndt began as Director about 14 months after the inauguration of the Trump administration, in a declining CRP funding environment, and with multiple large bilateral research programs ending. EPTD was already excessively dependent on small and short duration projects. Hence, fundraising was the major focus for three years. By about June 2021, aggregate fundraising, combined with very modest expectations for funding from 1CG initiatives, covered essentially all EPTD staff for 2022. In this process, Arndt established very good relationships with key funders. He also established relationships with new funders, such as Community Jameel, and reinforced linkages with organizations such as the World Bank, GIZ, and UNDP, which are both funders and important partners for research uptake.

With respect to management, there were two priorities: building effective teams and communications. On teams, Arndt deliberately pursued the <u>five elements of effective teams</u> identified by Google, with emphasis on <u>psychological safety</u>. This was highly successful with the EPTD leadership team, and this intentionality in building and maintaining effective teams has filtered throughout the Division. On communications, Arndt has held regular leadership and staff meetings. At these, he has consistently sought to be as open and forthright as possible. Partly because of Arndt's engagement with the reform process but also because of consistent efforts to communicate clearly and succinctly, EPTD staff are regarded as relatively well-informed within IFPRI, and well-placed for working with colleagues at other CGIAR entities. Arndt believes that this communication ended up being anxiety reducing and morale improving.

# SELECTED POLICY RESEARCH FOR IMPACT

Since serving as a Peace Corps volunteer in the Direction of Planning and Economic Affairs in the Ministry of Agriculture in Morocco, Arndt has focused on policy research for impact. Because decision-making at country or sub-national levels is so important to outcomes and because central decision-

making units in countries are so important to driving large and long-term processes, such as transformation of food, land, and water systems, he has explicitly sought to engage with units such as Ministries of Plan and Finance. His philosophy for achieving impact involves top quality analytics, relationship and trust building, and 'crowding in' capabilities. The final element, crowding in capabilities, is crucial for two reasons. First, and broadly, the more sophisticated analytical capabilities in countries become, the greater the interest of countries in enhancing their own capabilities. Second, engagement that augments skills and capacities leads more rapidly to buy in at both technical and political levels, which is critical to impact. The following lists four examples of major research projects led by Arndt where this philosophy has been formed and applied.

# <u>Towards Inclusive Economic Development in Southern Africa</u>. International Food Policy Research Institute (June 2017 – December 2021)

Following on to the successful regional growth project depicted immediately below, the National Treasury of South Africa teamed with Department of Planning Monitoring and Evaluation in the Presidency, the Department of Trade and Industry, the South African Revenue Services, and the European Union to develop a large research program with six workstreams. Arndt served on the three-person committee leading the project and led the Climate and Energy workstream, which was the largest of the six. *The Economist* magazine, in their October 19, 2019 edition, stated that the finance minister "published a 77-page paper on the National Treasury website, replete with sensible ideas" (p. 45) Arndt worked closely with the National Treasury in developing many of the ideas, notably in immigration, energy, agriculture, water resources and regional trade. This strategy is currently being operationalized via <u>Operation Vulindlela</u>. The policy impact on water resources is documented in a recent Outcome Impact Case Report and in this video. A second video documents other policy impacts, including the role of IFPRI in the design of South Africa's response to Covid-19. Finally, the project was heavily engaged in energy. It provided the tools deployed for the emissions reductions pledged in South Africa's most recent NDC, and project analytics helped to set the stage for the <u>Just Energy Transition Partnership</u>, which was negotiated at CoP 26 and which aims to provide \$8.5 billion in grants and soft loans.

# <u>Regional Growth and Development in Southern Africa</u>, World Institute for Development Economics Research of the United Nations University (January 2014 – December 2016)

Arndt led this project, which was run in collaboration with the National Treasury (NT) of South Africa. It included a variety of components. First, climate change mitigation and adaptation activities were continued following on from activities under DUCC (see immediately below). The project made significant contributions to South Africa's Long Term Adaptation Strategy (LTAS) process as well as substantial inputs into mitigation and energy policies. Second, the project secured collaboration with the South African Revenue Service (SARS) for the analysis of confidential personal and corporate income tax data as well as value added tax data. This was a major institutional achievement opening large avenues in terms of policy relevant research both in the near term and into the future. Third, a regional research program was launched focused on energy, value chains, and infrastructure in collaboration with eight key regional institutions. Fourth, a major effort to validate and improve the South African General Equilibrium (SAGE) model employed by NT was conducted. Fifth, substantial efforts at capacity building were made within the Economic Policy unit of the National Treasury distributed across the macroeconomics, microeconomics and modeling and forecasting groups. Sixth, an active dissemination program was maintained including co-sponsoring of conferences on regional value chains and climate change issues for Africa with Trade and Industrial Policy Strategies and the Joint Program for the Science and Policy of Global Change at the Massachusetts Institute of Technology respectively. Finally, six policy workshops were conducted focusing on macroeconomics and labor markets; South Africa in Africa; exports of services; energy and macroeconomic stability; productivity; and equality as development strategy.

<u>Development under Climate Change (DUCC)</u>, World Institute for Development Economics Research of the United Nations University (November 2010 – December 2014)

Arndt led an interdisciplinary team of leading scholars, post-doctoral fellows and graduate students examining climate change issues in Africa and Asia. The team included climate scientists, water resource specialists, infrastructure specialists, crop modelers and economists. A broad-based framework, labeled Systematic Analysis for Climate Resilient Development (SACRED) was developed. This framework was deployed to analyze climate risks in detail and to sum together these risks to consider the implications for growth and development prospects in a range of countries including Ghana, Malawi, Mozambique, South Africa, Tanzania, Vietnam, and Zambia. In addition, detailed frameworks were developed for the analysis of energy and mitigation policies with an emphasis on South Africa. Academic outputs include contributions to five journal special issues, three of which were based entirely on DUCC related outputs. DUCC was designated a project to watch by UN Pulse in an international competition. DUCC has significantly influenced views on climate change costs, including mitigation costs, in Southern Africa and in Vietnam. In addition, in collaboration with the African Economic Research Consortium (AERC), the DUCC project developed a four-week distance learning course in the science and economics of climate change. The course was completed by 56 African scholars in 21 countries over the course of 2011. Finally, curriculum for graduate courses (Masters and PhD level) in the economics of climate change was developed and made available to 17 African universities via the AERC network.

### Ministry of Planning and Development, Mozambique (January 2003- December 2010)

Arndt led a series of institution building projects in the research unit of the Ministry of Planning and Development. He was resident in Maputo for the first 5.5 years of the program. During this period, he guided research, training, and dissemination activities of approximately 20 professionals within the unit and coordinated short-term technical assistance. The unit was and remains primarily responsible for core policy documents including the Mozambican Poverty Reduction Strategy Papers (PRSP) for 2005-09 and 2010-14; poverty assessments (2003 and 2009); the medium-term fiscal framework; and other development strategy documents. From 2004-2008, the unit, in collaboration with external partners, published 65 high quality discussion papers of which 20 were accepted in international journals or book volumes and an additional 13 represent a book volume on fiscal policy and tax incidence published by Routledge. An active program of seminars and an annual intensive short course in a topical area were also maintained. The research unit provides policy advice to government through publications, presentations, regular meetings, policy notes, and frequent *ad hoc* meetings. An external evaluation of the support to the research unit conducted in 2008 was highly positive.

### SUMMARY OF PUBLICATION RECORD

#### Citations

Arndt's publications are widely cited. As of January 2022, Google Scholar lists more than 9650 citations of publications authored or co-authored by Arndt. The h-index for Arndt compiled by Google Scholar is 54 and the i10-index 142.

#### Books and special issues/sections of journals

IFPRI [Arndt is one of four internal co-editors]. *Food Systems Transformation and Climate Change: Policy Priorities*. Global Food Policy Report 2022.

Arndt, Channing, organizer and editor. Bioenergy in Southern Africa. *Development Southern Africa*. 36(2) (2019).

Arndt, Channing and Simon Roberts, organizers. Regional trade in Southern Africa. *Development Southern Africa*. 35(3)(2018).

Arndt, Channing and Rob Davies, eds. Firm level analysis using administrative record data. *South African Journal of Economics*. 86(S1)(2018).

Arndt, Channing and Finn Tarp, eds. "Aid, Environment, and Climate Change" *Review of Development Economics*. 21(2)(2017).

Arent, Douglas, Channing Arndt, Mackay Miller, Finn Tarp, and Owen Zinaman, eds. *The Political Economy of Clean Energy Transitions*. Oxford University Press. 2017.

Arndt, Channing and Finn Tarp, eds. Measuring Poverty and Wellbeing. Oxford University Press. 2016.

Arndt, Channing, Andy McKay, and Finn Tarp, eds. *Growth and Poverty in Sub-Saharan Africa*. Oxford University Press. 2016.

Arent, Douglas and Channing Arndt, eds. Prospects for Clean Energy in Sub-Saharan Africa. *Applied Energy*. 161(2016).

Akpalu, Wisdom and Channing Arndt, eds. The economics of climate change in developing countries: Selected studies of impacts and adaptations in Sub-Saharan Africa and South-East Asia. *Sustainability*. 7(2015).

Arndt, Channing with UNU-WIDER. Climate Change Impacts and Adaptations: Lessons Learned from the Greater Zambezi River Valley and Beyond. *Climatic Change*. 130(1)(2015).

Arndt, Channing with the African Economic Research Consortium. Climate Change and Economic Development in Africa. *Journal of African Economies*. 23(4)(2014).

Arndt, C. and F. Tarp eds. Economic Development Under Climate Change. *Review of Development Economics*. 16(3)(2012).

Arndt, C. and F. Tarp eds. *Taxation in a Low-Income Economy: The Case of Mozambique*. London: Routledge. 2009.

### **Publications in Refereed Journals**

Arndt, Channing; Diao, Xinshen; Dorosh, Paul A.; Pauw, Karl; and Thurlow, James. 2023. The Ukraine war and rising commodity prices: Implications for developing countries. *Global Food Security 36*(March 2023): 100680. <u>https://doi.org/10.1016/j.gfs.2023.100680</u>

Arndt, Channing; Davies, Robert J.; Gabriel, Sherwin; Harris, Lawrence; and Sachs, Michael. 2023. Building back fairer from the COVID-19 pandemic in South Africa. In Unlocking Growth Prospects in Post-Pandemic South Africa: A Compilation of Working Papers Looking at Ways to Restore and Accelerate Economic Growth in South Africa, eds. Christopher Loewald and Matthew Stern. Chapter 5, Pp. 132-152. <u>https://www.resbank.co.za/content/dam/sarb/what-we-</u> do/research/UNLOCKING%20GROWTH%20PROSPECTS%20FINAL%20050423.pdf

Thomas, Timothy S; Robertson, Richard D; Strzepek, Kenneth; and Arndt, Channing . 2022. "Extreme events and production shocks for key crops in Southern Africa under climate change". *Frontiers in Climate 4: 787582.* <u>https://doi.org/10.3389/fclim.2022.787582</u>.

Thomas, Timothy S; Schlosser, C Adam; Strzepek, Kenneth; Robertson, Richard D; and Arndt, Channing. 2022. "Using a large climate ensemble to assess the frequency and intensity of future extreme

climate events in Southern Africa". Frontiers in Climate 4: 787721. https://doi.org/10.3389/fclim.2022.787721.

Schlosser, Adam; Sokolov, Andrei; Strzepek, Kenneth M.; Thomas, Timothy S.; Gao, Xiang; and Arndt, Channing. "The changing nature of hydroclimatic risks across South Africa". *Climatic Change* (2021):168(28). <u>https://doi.org/10.1007/s10584-021-03235-5</u>

Amare, Mulubrhan, Kibrom A. Abay, Channing Arndt, and Bekele Shiferaw. "Youth migration decisions in Sub-Saharan Africa: Satellite-based empirical evidence from Nigeria." *Population and Development Review* 47(1)(2021):151-179. <u>https://doi.org/10.1111/padr.12383</u>

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Amare, Mulubrhan; Arndt, Channing; Abay, Kibrom A.; and Benson, Todd. "Urbanization and child nutritional outcomes". *World Bank Economic Review* 34(1)(2020) 63-74. https://doi.org/10.1093/wber/lhy015

Comerford, Kevin; Arndt, Channing; Drewnowski, Adam; Ericksen, Polly; Griffin, Timothy; Hendrickson, Mary; Ingram, John; and Nicholls, Jill. "Proceedings of a workshop on characterizing and defining the social and economic domains of sustainable diets". *Sustainability* 12(10)(2020): 4163. <u>https://doi.org/10.3390/su12104163</u>

Makrelov, Konstantin; Arndt, Channing; Davies, Rob; and Harris, Laurence. "Balance sheet changes and the impact of financial sector risk-taking on fiscal multipliers". *Economic Modelling* 87(2020): 322-343. <u>https://doi.org/10.1016/j.econmod.2019.08.006</u>

Arndt, Channing; Chinowsky, Paul; Fant, Charles; Paltsev, Sergey; Schlosser, Adam; Strzepek, Kenneth; Tarp, Finn; and Thurlow, James. "Climate change and developing country growth: The cases of Malawi, Mozambique, and Zambia. *Climatic Change* 154(3-4)(2019): 335–349. <u>https://doi.org/10.1007/s10584-019-02428-3</u>

Arndt, Channing, Douglas Arent, Faaiqa Hartley, Bruno Merven and Alam H. Mondal. "Faster than You Think: Renewable Energy and Developing Countries." *Annual Review of Resource Economics*. 11(2019):149-168.

Arndt, C., F. Hartley, and G. Henley. "Bioenergy in Southern Africa: An opportunity for regional integration?" *Development Southern Africa*. 36(2)(2019):145-154.

Hartley, F., D. van Seventer, P.C. Samboko, and C. Arndt. "Economy-wide implications of biofuel production in Zambia. *Development Southern Africa*. 36(2)(2019):213-232.

Hartley, F., D. van Seventer, E. Tostao, and C. Arndt. "Economic Impacts of Developing a Biofuel Industry in Mozambique." *Development Southern Africa*. 36(2)(2019):233-254.

Arndt, Channing, Amy Dale, Patrick Hatzenbuehler, Jordan Kyle, Innocent Matshe, Adam Schlosser and Emily Schmidt. "A Data Revolution for Agricultural Production Statistics in sub-Saharan Africa." *Ghanaian Journal of Economics*. 6(2018):54-73.

Arndt, Channing, Hartley, Faaiqa, Ireland, Gregory, Mahrt, Kristi, Merven, Bruno, and Wright, Jarrad. "Developments in Variable Renewable Energy and Implications for Developing Countries." *Current Sustainable/Renewable Energy Reports*. 5(4)(2018):240-246. <u>https://doi.org/10.1007/s40518-018-0121-9</u>.

Arndt, C. and S. Roberts. "Introduction to special issue on regional growth opportunities." *Development Southern Africa*, 35(3)(2018):295-296.

Arndt, C. and S. Roberts. "Key issues in regional growth & integration in Southern Africa." *Development Southern Africa*. 35(3)(2018):297-314.

Arndt, Channing, M. Azhar Hussain, Kristi Mahrt, and Finn Tarp. "A Rights Consistent Approach to Multidimensional Welfare Measurement with Application to Sub-Saharan Africa." *World Development*. 108(2018): 181-196.

Arndt, Channing. "New Data, New Approaches and New Evidence: A Policy Synthesis." *South African Journal of Economics*. 86(2018): 167-178.

Arndt, Channing, Rob Davies, Elizabeth Gavin, and Landon McMillan. "Introduction Firm Level Analysis with Administrative Data." *South African Journal of Economics*. 86(2018): 3-5.

Arndt, Channing and Finn Tarp. "Aid, Environment, and Climate Change" *Review of Development Economics*. 21(2)(2017): 285-303.

Arndt, Channing, M. Azhar Hussain, Vincenzo Salvucci, Lars P Østerdal (lead article). "Effects of Food Price Shocks on Child Malnutrition: The Mozambican Experience 2008/09." *Economics and Human Biology*. 22(2016): 1–13.

Arndt, Channing, Karl Pauw, and James Thurlow. "The Economywide Impacts and Risks of Malawi's Farm Input Subsidy Program." *American Journal of Agricultural Economics*. 98(2016): 962-980.

Arndt, Channing, Sam Jones, and Finn Tarp. "What is the Aggregate Economic Rate of Return to Foreign Aid?" *World Bank Economic Review*. 30(3)(2016): 446-474.

Arndt, Channing, M. Azhar Hussain, Vincenzo Salvucci, Finn Tarp and Lars P. Østerdal. "Poverty Mapping Based on First Order Dominance with an Example from Mozambique." *Journal of International Development*. 28(2016): 3-21.

Arndt, Channing and Douglas Arent. "Editorial: Energy and Climate Change in Sub-Saharan Africa." *Applied Energy*. 161(2016): 553-555.

Arndt, Channing, Rob Davies, Sherwin Gabriel, Konstantin Makrelov, Bruno Merven, Faaiqa Hartley, and James Thurlow. "A sequential approach to integrated energy modeling in South Africa." *Applied Energy*. 161(2016): 591–599.

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Akpalu, Wisdom, Channing Arndt, Innocent Matshe. "Introduction to the special issue on the economics of climate change in developing countries: Selected studies of impacts and adaptations in Sub-Saharan Africa and South-East Asia." *Sustainability*. 7(2015):12122-12126.

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Arndt, Channing, Finn Tarp, and James Thurlow. "The economic costs of climate change: a multi-sector impact assessment for Vietnam." *Sustainability*. 7(2015): 4131-4145.

Arndt, Channing, Sam Jones, and Vincenzo Salvucci. "When do relative prices matter for measuring income inequality? The case of food prices in Mozambique. *Journal of Economic Inequality*. 13(2015): 449–464.

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Arndt, Channing, Charles Fant, Sherman Robinson, and Kenneth Strzepek. "Informed Selection of Future Climates." *Climatic Change*. 130(1)(2015):21-33.

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### **Book Chapters**

Benfica, Rui; Chambers, Judith A.; Koo, Jawoo; Nin-Pratt, Alejandro; Falck-Zepeda, José Benjamin; Stads, Gert-Jan; and Arndt, Channing. 2023. Food System Innovations and Digital Technologies to Foster Productivity Growth and Rural Transformation. In: von Braun, J., Afsana, K., Fresco, L.O., Hassan, M.H.A. (eds) Science and Innovations for Food Systems Transformation. Springer, Cham. https://doi.org/10.1007/978-3-031-15703-5\_22

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Meinzen-Dick, Ruth Suseela; Ringler, Claudia; Zhang, Wei; Arndt, Channing. 2021. Natural resources and environment: Governance for nature-positive food systems. In *2021 Global food policy report: Transforming food systems after COVID-19.* Chapter 4, Pp. 44-52. Washington, DC: International Food Policy Research Institute (IFPRI). <u>https://doi.org/10.2499/9780896293991\_04</u>

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De Weerdt, Joachim; Arndt, Channing; Thurlow, James; Duchoslav, Jan; Glauber, Joseph; You, Liangzhi; and Anderson, Weston. 2024. "El Niño: Malawi's harvest of its staple food maize may fall by 22.5% this year". The Conversation. First published online on January 29, 2024. https://theconversation.com/el-nino-malawis-harvest-of-its-staple-food-maize-may-fall-by-22-5-this-year-221349

Mahrt, Kristi; Herforth, Anna W.; Robinson, Sherman; Arndt, Channing; and Headey, Derek D. 2022. Nutrition as a basic need: A new method for utility-consistent and nutritionally adequate food poverty lines. IFPRI Discussion Paper 2120. Washington, DC: International Food Policy Research Institute (IFPRI). <u>https://doi.org/10.2499/p15738coll2.135901</u>

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Hartley, Faaiqa; Gabriel, Sherwin; Cullis, James; and Arndt, Channing. 2021. Climate uncertainty and agricultural vulnerability in South Africa. SA-TIED Working Paper 162. <u>https://sa-tied.wider.unu.edu/article/climate-uncertainty-and-agricultural-vulnerability-south-africa</u>

Haile, Beliyou; Guo, Zhe; Arndt, Channing; and Ahn, Hee Eun. 2021. Combining remotely sensed and survey data to better understand linkages between urbanization and child nutrition: Case study from Burkina Faso. IFPRI – MCC Technical Paper Series: Prioritizing Agricultural Investments for Income, Poverty Reduction, and Nutrition 9. Washington, DC: International Food Policy Research Institute (IFPRI); and Millennium Challenge Corporation (MCC).

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Arndt, Channing; Davies, Robert J.; Gabriel, Sherwin; Harris, Laurence; Sachs, Michael; and van Seventer, Dirk. 2021. <u>Building back fairer from the Covid-19 pandemic in South Africa: Some first step reforms in an era of fiscal constraints</u>. IFPRI Discussion Paper 2043. Washington, DC: International Food Policy Research Institute (IFPRI).

van Seventer, Dirk; Arndt, Channing; Davies, Rob; Gabriel, Sherwin; Harris, Laurence; and Robinson, Sherman. 2021. Recovering from COVID-19: Economic scenarios for South Africa. IFPRI Discussion Paper 2033. Washington, DC: International Food Policy Research Institute (IFPRI). https://doi.org/10.2499/p15738coll2.134455

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Schlosser, Adam; Sokolov, Andrei; Strzepek, Kenneth M.; Thomas, Timothy S.; Gao, Xiang; and Arndt, Channing. 2020. "The changing nature of hydroclimatic risks across Southern Africa". SA-TIED Working Paper 101. https://sa-tied.wider.unu.edu/sites/default/files/images/SA-TIED WP101.pdf

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Ministry of Economics and Finance and UNU-WIDER. "Poverty and Well-Being in Mozambique: The Fourth National Assessment." Maputo, Mozambique. October 2016.

UNU-WIDER. "Growth and development policy: New data, new approaches, and new evidence – Part I: South Africa. Report. Helsinki. November 2016.

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Arndt, C., K. Strzepek, J. Thurlow, and L. Wright. "Economics of Adaptation to Climate Change: The Case of Mozambique." The World Bank. December 2010.

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Arndt, C., F. Flatters, T. Rutherford, M. Stern, and C. Stevens. "Design of the SADC Customs Union." DNAfrica consulting report. August 2007.

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# Selected Policy Briefs, Popular Press, and Blogs

Detelinova, Iva; Thomas, Timothy S.; Tian, Junyan; Hammond, Wole; and Arndt, Channing. 2023. From climate risk to resilience: Unpacking the economic impacts of climate change in Zambia. Washington, DC: International Food Policy Research Institute; Cape Town: The African Climate Foundation. https://doi.org/10.2499/p15738coll2.136956

Detelinova, Iva; Thomas, Timothy S.; Tian, Junyan; Hammond, Wole; and Arndt, Channing. 2023. From climate risk to resilience: Unpacking the economic impacts of climate change in Mozambique. Washington, DC: International Food Policy Research Institute; Cape Town: The African Climate Foundation. <u>https://doi.org/10.2499/p15738coll2.136961</u>

Detelinova, Iva; Thomas, Timothy S.; Hammond, Wole; Arndt, Channing; and Mukashov, Askar. 2023. From climate risk to resilience: Unpacking the economic impacts of climate change in Malawi. Washington, DC: International Food Policy Research Institute; Cape Town: The African Climate Foundation. <u>https://doi.org/10.2499/p15738coll2.136955</u>

Detelinova, Iva; Thomas, Timothy S.; Hammond, Wole; Arndt, Channing; and Hartley, Faaiqa. 2023. From climate risk to resilience: Unpacking the economic impacts of climate change in Kenya. Washington, DC: International Food Policy Research Institute; Cape Town: The African Climate Foundation. <u>https://doi.org/10.2499/p15738coll2.136953</u>

Compton, Julia; Stads, Gert-Jan; Barrett, Christopher B.; Herrero, Mario; Arndt, Channing; Prasad, P. V.; Zurek, Monika; and Khetarpal, Ravi. 2022. Global tracking of agrifood research and innovation for meeting food security and sustainable development goals. Food Security and Sustainable Agriculture Task Force Brief. September 30, 2022. <u>https://www.t20indonesia.org/wp-</u>

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Arndt, Channing; Hartley, Faaiqa; Loewald, Christopher; and Makrelov, Konstantin. 2021. Climate change, food security, and central banks in developing economies. Task Force 2 Climate Change, Sustainable Energy & Environment Policy Brief September 2021. https://www.t20italy.org/2021/09/22/climate-change-food-security-and-central-banks-in-developing-economies

"Extraordinary COVID-19 social support programs in South Africa yield economic benefits during the pandemic period". IFPRI blog. August 30, 2021.

<u>SA-TIED policy dialogue – Climate-related investments: now or later?</u> SA-TIED online event. May 12, 2021.

Arndt, Channing; Chambers, Judith A.; Zambrano, Patricia; Alahmdi, Mohammed Issa; Alatawi, Aishah; Benfica, Rui; Edward, Martin G.; Gatehouse, Angharad M. R.; Moronta-Barrios, Felix; and Ahmed, Akhter. 2020. Embracing innovation to meet food systems challenges. TF10: Sustainable Energy, Water, and Food Systems Policy Briefs 1. Saudi Arabia: T20. https://t20saudiarabia.org.sa/en/briefs/Pages/Policy-Brief.aspx?pb=TF10\_PB1

"Who has been hit hardest by South Africa's lockdown? We found some answers." *The Conversation*. June 11, 2020.

"Climate mitigation can support growth in developing countries." Financial Times. October 1, 2019.

"Investment in agricultural research key to offsetting climate change impacts" with Shenggen Fan and Nick Austin. Reuters wire service. September 25, 2019.

"Why Nigeria urgently needs to grow non-oil exports." The Conversation. September 10, 2018.

"The clean energy revolution tipping point is inevitable—but the sooner, the better." *Quartz*. November 3, 2017.

"Will China lead on climate change as green technology booms?" *The Conversation*. November 21, 2016.

"Some good news from Mozambique: poverty levels have been reduced." *The Conversation*. November 8, 2016.

"Done sensibly, agricultural development can reduce poverty in Africa" with Andy McKay and Finn Tarp. *The Conversation*. April 19, 2016.

"Development aid works overtime but must adapt to 21st century needs" with Finn Tarp and Sam Jones. *The Conversation.* February 2, 2016.

"Changes since Copenhagen mean Paris will deliver more for developing countries." *The Conversation*. December 6, 2015.

"Malawi's farm subsidy benefits the poor but doesn't come cheap" with Karl Pauw and James Thurlow. *The Conversation.* September 11, 2015.

"What Mozambique can do to achieve rapid economic and social progress." *The Conversation*. June 23, 2015.

# **Current Manuscripts in Review**

Arndt, Channing, Christopher Loewald, and Konstantin Makrelov. "Climate change, food security, and central banks in developing economies." In review by *Global Food Security*.

# SCHOLARLY SERVICE

# **Current Editorial Posts**

Associate Deputy Editor: Climatic Change.

Member of the Advisory Board: Food Policy.

Member of Editorial Board: Development Southern Africa.

# **Reviewing and Other Service**

Arndt has served as a reviewer for more than 50 academic journals, three book publishers, eight funding organizations, and four international organizations. He has also served as referee for numerous submissions to conferences such as the Annual Conference in Global Trade Analysis and the conference of the International Association of Agricultural Economists. He served as reviewer for the Department for International Development and the Economic and Social Research Council in the United Kingdom, the Dutch NWO, the South African Research Foundation, and the Norwegian Research Council.

Since 2008, Arndt has served on the committee or as external examiner for 15 PhD students at nine universities.

From May 2010 to May 2018, Arndt served as a resource person for the African Economic Research Consortium traveling to Africa twice a year to support AERC programs.

# SELECTED DISSEMINATION ACTIVITIES

### **Organization of Events**

"<u>Building back for a sustainable future</u>." The COVID Project. ERSA, in conjunction with German Development Cooperation (GIZ) and the International Food Policy Research Institute (IFPRI) in a discussion on building South Africa's economy back sustainably post pandemic. November 24, 2022.

"Covid-19: Recovery and Growth." Organized an event with South African Reserve Bank, National Treasury, and Department of Planning Monitoring and Evaluation. Leaders from the Covid-19 epidemiological modeling team also attended. September 29, 2020.

"Towards a just energy transition in South Africa." Lead responsibility for organizing a full day event in collaboration with Department of Planning Monitoring and Evaluation in the Presidency of South Africa. Attended by about 50 leading technical people in the energy space. Pretoria, South Africa. August 28, 2019.

Using IFPRI Data. Technical session at the African Economic Research Consortium biannual workshop. About 60 people attending. Cape Town, RSA. June 2019.

Launch of 'Towards Inclusive Economic Development in Southern Africa.' Co-organizer. About 80 people attended the launch. Pretoria, South Africa. November 30, 2017.

"Quantifying the benefits of the energy transition in South Africa." Lead responsibility for organizing a morning event in collaboration with Department of Planning Monitoring and Evaluation in the

Presidency of South Africa. Attended by about 50 leading technical people in the energy space. Pretoria, South Africa. November 29, 2017.

"Policies for Growth and Development: New Data, New Approaches, and New Evidence." Lead responsibility for organizing this two-day conference attended by about 150 people and held in Pretoria, South Africa. November 30 and December 1, 2016.

"Responding to climate change: the political economy of clean energy transitions." Organizer of session at the 'Response to Crises' conference. Helsinki, Finland, September 2016.

"Perspectives on Sharing the Nile." Organizer of session at the 'Response to Crises' conference. Helsinki, Finland, September 2016.

"Equality as Development Strategy." Co-organized a series of lectures by Professor Karl Moene at the University of Cape Town, Wits University, Trade and Industrial Policy Strategies, the National Treasury, and the South African Reserve Bank. August 2016.

"Industrialisation and the mining economy." Contributed to organization of the 2016 Trade and Industrial Policy Strategies Annual Forum 2016. Johannesburg, South Africa, June 2016.

"Productivity". An all-day policy workshop held at the South African Reserve Bank in collaboration with the National Treasury and the South African Reserve Bank. Approximately 70 people in attendance. Pretoria, South Africa. June 2016.

"Energy and Macroeconomic Stability." An all-day policy workshop held at the South African Reserve Bank in collaboration with the National Treasury, the South African Reserve Bank, and the National Planning Commission. Approximately 60 people in attendance. Pretoria, South Africa. April 2016.

"Using SARS' Administrative Records for Policy and Economic Research." Organized workshop for the all-day event featuring the first set of results of policy analysis from tax data. Approximately 70 people in attendance. Pretoria, South Africa. January 2016.

### **Policy Presentations in Developing Countries**

Arndt has delivered numerous policy presentations to high-level officials in diverse countries such as Bangladesh, Kenya, Malawi, Mexico, Morocco, Mozambique, South Africa, Tanzania and Vietnam. Recent examples include:

Introduction to "Leveraging the New Bottom-Up Economic Plan for Food System Transformation in Kenya." Hosted by the Kenya Institute for Public Policy Research and Analysis (KIPPRA), chaired by Rose Ngugi, Executive Director of KIPPRA and attended by Njuguna Ndung'u, Minister of Finance, and Kello Harsama, Permanent Secretary, State Department for Crop Development, Kenya Ministry of Agriculture and Livestock.

"Climate change and South Africa's economy: Dealing with uncertainty". Economic Roundtable Discussion, South African Reserve Bank (SARB). February 25, 2022.

"Digital agriculture." Presented by invitation to the National Institute for Legislative and Democratic Studies, National Assembly, Nigeria. September 2020.

"Impacts of Covid-19 Lockdowns." Co-presented to all members of the National Planning Commission at an event organized by the Department of Planning Monitoring and Evaluation, South Africa. August 2020.

"Policies for growth". Presented to all members of the National Planning Commission as a 'friend of the commission' at a commission retreat. Also, served on a discussion panel. Pretoria, South Africa, December 2016.

"Regional Growth Opportunities." Presented to members of the National Planning Commission at the Presidency in Pretoria South Africa. Seven planning commissioners and ten Department of Planning Monitoring and Evaluation staff members attended. August 2016.

"Climate Change and Energy." Presented to members of the National Planning Commission at the Presidency in Pretoria South Africa. Seven planning commissioners and ten Department of Planning Monitoring and Evaluation staff members attended. August 2016.

"Why is productivity growth in South Africa so slow?" Presented to an invited audience of about 70 people at the South African Reserve Bank. June 2016.

"Energy and Macroeconomic Stability." Delivered closing summary for the all-day event held at the South African Reserve Bank in collaboration with the National Treasury, the South African Reserve Bank, and the National Planning Commission. Approximately 60 people in attendance. Pretoria, South Africa. April 2016.

"Using SARS' Administrative Records for Policy and Economic Research." Delivered closing summary for the all-day event featuring the first set of results of policy analysis from tax data. Approximately 70 people in attendance. Pretoria, South Africa. January 2016.

"Services Exports." Organized and presented at a half-day policy workshop at the National Treasury, Pretoria, South Africa. December 2015.

"South Africa in Africa." Chaired an all-day event in South Africa attended by the Director General of the National Treasury, Deputy Governor of the Reserve Bank of South Africa, and high-level representatives from the National Planning Commission, the Department of Trade and Industry, the Treasury as well as private sector leaders. October 2015.

"Labor Markets and Growth." Chaired an all-day event in South Africa attended by high level representatives from the National Treasury, the South African Reserve Bank, the Planning Commission, the Department of Trade and Industry, and the Department of Labour. June 2015.

"Growth and Poverty in Sub-Saharan Africa" delivered to a high-level audience focused on agriculture in Maputo Mozambique, May 2015.

"Climate Change Impacts for South Africa." Two presentations. The first one delivered to top government officials, member of the National Planning Commission, and members of the Long-Term Adaptation Strategy (LTAS) team in Cape Town in March 2013. The second delivered to a selection of government officials in Pretoria in May 2013.

"Climate Change and Food Security in Tanzania" delivered to a diverse invited audience including the Director for climate change in the Vice President's office. Dar Es Salaam, Tanzania, June 2012.

"Implications of Climate Change for Economic Growth and Development in Vietnam". Two presentations. The first delivered to the Minister of Environment and high-level officials from the Ministry of Planning and Investment. Hanoi, Vietnam, November 2011. The second to a diverse invited audience in July 2012.

"Key Issues for Growth and Development in Mozambique" delivered to Ambassadors and Heads of Cooperation of Sweden, Denmark, Norway, and Iceland. Maputo, Mozambique, January 2012.

"Economics of Carbon Taxation" delivered to the Director of Economic Policy and the Director of Tax Policy at National Treasury. Pretoria, South Africa. November 2010.

#### **Presentations to Technical Audiences**

Arndt has delivered more than 150 invited lectures, on diverse topics, at international conferences and to research institutions in more than 20 countries and in three languages (English, Portuguese and French). Recent presentations include:

"Meeting Great Expectations for Food Systems in an Era of Volatility." World Food Day talk sponsored by the Australian Department of Foreign Affairs and Trade, the Australian Centre for International Agricultural Research, and the Resilience Initiative for Food and Agriculture at Australia National University. Canberra, Australia. October 16, 2023.

"Great Expectations: Striving towards the food systems that we want by 2050." Opening plenary keynote address. XVI Agricultural Science Congress. Kochi, India. October 11, 2023.

"Africa: The Next Breadbasket". Panel discussion on "Africa: The Next Breadbasket" at Advancing Success Towards SDG2 (Zero Hunger) Through Science & Technology. National Academies of Sciences, Washington, DC. July13, 2023.

"Environmental Effects of Nuclear War: Presentation on Trade". Environmental Effects of Nuclear War Information Gathering. National Academies of Sciences, Washington, DC. June 22, 2023.

"A Comprehensive Assessment of Impacts and Adaptations to Climate Change for Egypt". An online presentation to Egypt's Ministry of Planning and Economic Development by the International Food Policy Research Institute & Partners. Washington, DC. June 21, 2023.

"The Road to Resilience: Rethinking Responses to Food Crises". 2023. Presentation of the 2023 Global Food Policy Report and Launch of Fragility Conflict and Migration Research Initiative. Amman, Jordan. May 24, 2023.

"Understanding and Shaping What the World Eats: IFPRI Leadership in Research to Support Better Diets and Nutrition". 2023. CGIAR Systems Council Event. Washington, DC. May 10, 2023.

"High expectations: Striving towards the food systems that we want by 2050". 2023. Online presentations delivered to the Washington Institute of Foreign Affairs (WIFA) on March 1, 2023 and presented at the Johns Hopkins University School of Advanced International Studies 'Global Issues in Agriculture Seminar Series'. Washington DC on February 15, 2023.

"Global Breadbaskets and Global Shocks". 2022. Keynote lecture at the Bhartiya Agro-Economic Research Center (BAERC) International Conference. New Delhi, India, July 22, 2022.

"Climate-related scenarios for stress-testing in the domestic financial sector". Online presentation convened by the South African Reserve Bank (SARB). Essentially all major players in the South African financial sector present. July 22, 2022.

"Impacts of the Ukraine and Global Crisis on Food Systems and Poverty: General Issues, Cross Country Results and a Case Study of Nepal." Lecture at the National Institute of Agricultural Economics and Policy Research. New Delhi, India. July 20, 2022.

"Climate Change and Food Systems: Transformation for Adaptation, Mitigation, and Resilience". Global launch of IFPRI's 2022 Global Food Policy Report: Climate Change & Food Systems. IFPRI, Kathmandu, Nepal. June 17, 2022.

"Climate Change and Food Systems: Transformation for Adaptation, Mitigation, and Resilience". Online Global launch of IFPRI's 2022 Global Food Policy Report: Climate Change & Food Systems. IFPRI, Beijing, China. June 17, 2022.

"Climate Change and Food Systems: Transformation for Adaptation, Mitigation, and Resilience." Global launch of IFPRI's 2022 Global Food Policy Report: Climate Change & Food Systems. IFPRI, Washington, DC. May 12, 2022.

"Climate Change and Food Systems: Transformation for Adaptation, Mitigation, and Resilience" Agriculture Policies Community of Practice Seminar, Pre-launch presentation: IFPRI's 2022 Global Food Policy Report. World Bank, Washington, DC. May 4, 2022.

"Climate Change, Emissions Mitigation, and Biodiversity Conservation: Are there opportunities for PNG?". Presentation during the IFPRI Training workshop "Introduction to Economy-Wide Analysis using SAM and CGE model". Washington, DC. April 6, 2022.

"Mitigation in Agriculture+ (AFOLU): Lessons from the Energy Sector and Perspectives Looking Forward. 2022. Presentation at the XLIV (44th) Global Change Forum organized by the MIT Joint Program on the Science and Policy of Global Change. Cambridge, MA. March 24, 2022.

"Climate change and South Africa's economy: Dealing with uncertainty". Online presentation for the Economic Roundtable Discussion, South African Reserve Bank. Most members of the Monetary Policy Committee present. February 25, 2022.

"Mitigation in Agriculture: Lessons from the Energy Sector and Perspectives Looking Forward". 2021 International Conference on Food Economics and Agricultural Sustainability, Huazhong Agricultural University, China. December 10, 2021.

"Mitigation in Agriculture+ (AFOLU): Lessons from the Energy Sector and Perspectives Looking Forward". Environmental Challenges and Agricultural Sustainability in Asia: Interlinkages and future implications virtual conference. Asian Development Bank Institute (ADBI). December 10, 2021.

"International Perspectives to Transitioning to Low-Carbon Agriculture". Vietnam High-Level Policy Forum Transitioning to Low-Carbon ("Green") Agri-Food System. The World Bank. November 30, 2021.

"<u>Unpacking the climate change and development nexus in Africa</u>". Africa Monthly Virtual Symposium: Africa's Innovations Against COVID-19. May 2020.

"Climate Change: Impact on Agriculture and Cost of Adaptation." Indian Centre for Agricultural Research. New Delhi. August 2019.

"Quantifying the Macro- and Socio-Economic Benefits of a Transition to Renewable Energy in South Africa" with Faaiqa Hartley. GTAP Annual Conference. Warsaw, Poland. June 2019.

"Climate Change and Inequality." African Economic Research Consortium biannual workshop. Cape Town, South Africa. June 2019.

"South Africa's Energy Future." Department of Economics, University of Cape Town. Cape Town, RSA, June 2019.

"Eggs before chickens: Poultry, poverty and nutrition in Sub-Saharan Africa." Allied Social Sciences Association meetings. Atlanta, GA. January 2019.

"The Future of Agriculture in Africa."

- Bill and Melinda Gates Foundation, December 2018.
- Conference 'Accelerating the End of Hunger and Malnutrition', International Food Policy Research Institute, Bangkok, November 2018.
- Chatham House, London, November 2018.

"Mitigation and Developing Country Growth."

- Conference 'Think Development Think WIDER', World Institute for Development Economics Research, Helsinki, September 2018.
- International Food Policy Research Institute, January 2018.

"Faster Than You Think: The Energy Revolution and Developing Countries."

- Bangladesh Institute for Development Studies, Dhaka. August 2019
- International Food Policy Research Institute, Washington DC, June 2019
- National Economic Development Authority of the Philippines, Manila, November 2018.
- GTAP Conference on Global Economic Analysis (keynote), Cartagena, Colombia.
- Invited lecture hosted jointly by the Science Policy Research Unit, Institute for Development Studies and STEPS Centre at the University of Sussex. December 2017.
- Purdue University invited seminar. W. Lafayette, IN. October 2017.
- International Food Policy Research Institute RISE rapid fire plenary presentation. Washington DC. September 2017.

"Africa and the Green Energy Revolution." Keynote address delivered at the University of Rwanda scientific week conference. Kigali, Rwanda. June 2017.

"Effects of Food Price Shocks on Child Malnutrition: The Mozambican Experience 2008/09." Invited speaker at the 3rd International Congress on Hidden Hunger. Stuttgart, Germany. March 2017.

"Growth and Poverty in Sub-Saharan Africa." With Samuel K. Annim. Seminar at the Department of Economics, University of Ghana. Accra, Ghana. February 2017.

"China's Rise and Opportunity for Structural Transformation in Africa." Invited discussant on lead plenary paper by Justin Lin. African Economic Research Consortium biannual workshop. Dakar, Senegal, December 2016.

"Regional Growth and Development: A Synthesis." Plenary presentation at the conference 'Growth and Development Policy: New Data, New Approaches, and New Evidence.' Pretoria, South Africa, December 2016.

"The South African Economy: Structure and Growth (1993 – 2013)." Invited lecture at Northwest University Department of Economics. Potchefstroom, South Africa, August 2016.

"Regional trade in Southern Africa." Welcoming address at the 2016 Trade and Industrial Policy Strategies Annual Forum. Johannesburg, South Africa, June 2016.

"Explaining Productivity Growth in South Africa." Presentation at the South African Reserve Bank. Pretoria, South Africa, June 2016.

"The Role of Agriculture in Economic Growth, Poverty Reduction, and Food Security in Sub-Saharan Africa: Results from 16 Case Studies." Invited presentation at the sixth International Conference on Sustainability Science, Stellenbosch, South Africa, March 2016.

"Migration and Productivity." Invited discussant at Conference entitled 'Structural Transformation of African Agriculture and Rural Spaces', Addis Ababa, Ethiopia, December 2015. "Poverty Trends in Pakistan: 2001 - 2011." Invited presentation at the International Food Policy Research Institute. August 2015.

"Climate Change and Developing Country Interests: Cases from the Zambezi River Basin." Invited presentation at the Third Northeast Environmental Economics Workshop, Yale University, May 2015.

"Climate Change and Developing Countries." Plenary address delivered to the Annual Meeting of the Finnish Economic Association, Helsinki, February 2015.

"When do relative prices matter for measuring inequality? The case of food prices in Mozambique." Overseas Development Institute, London, UK, February 2015.

"The Role of Agriculture Looking Forward". Keynote address delivered to the conference 'Public Investments and Policies for Food Security and Economic Transformation of Mozambique'. Sponsored by the International Food Policy Research Institute; Michigan State University; and Ministry of Agriculture. Maputo, Mozambique, November 2014.

"Long Term Adaptation Scenarios for South Africa." National Treasury, South Africa, April 2014.

"African Energy Futures"

- Department of Economics, Colorado State University, March 2014
- Department of Economics, University of Cape Coast, Ghana, June 2014
- Conference on Institutional Reforms for Transformation, Inclusion, and Sustainability. UNU-WIDER, Hanoi, Vietnam, June 2014.

"Estimating Utility Consistent Poverty Lines."

- Conference on "Inclusive growth in Africa: Measurement, causes and consequences." UNU-WIDER, Helsinki, Finland. September 2013.
- Poverty and Inequality Practice Group, The World Bank, Washington DC, May 2012.

"Climate Change and Economic Growth in the Zambezi River Valley Region."

- Plenary session at the AERC Biannual Workshop. Arusha, Tanzania, June 2013. The Vice President of Tanzania was in attendance.
- Plenary session at UNU-WIDER's Conference on Development and Climate Change. Helsinki, September 2012.
- Organized symposium at the International Association of Agricultural Economists meeting. Foz de Iguassu, Brazil, August 2012.

"Climate Change Impacts for Mozambique." Delivered in Portuguese. Faculty of Agronomy, University Eduardo Mondlane, Maputo, May 2013.

"Advancing Small Area Estimation."

- Nordic Conference for Development Economics. Bergen, Norway, June 2013.
- UNU-WIDER, Helsinki, February 2013.

"Development Success: Seven Lessons from Mozambique and Vietnam." Department of Economics, University of Copenhagen, Copenhagen, Denmark. June 2012.

"Poverty and Growth." Department of Economics and Institute for Statistical Social and Economic Research, University of Ghana. Accra, Ghana, June 2012.

"The Economics (and Politics) of Carbon Taxes in South Africa." United Nations Department of Economic and Social Affairs, New York, NY, April 2012. (With K. Makrelov and J. Thurlow).

"The Evolution of Poverty in Mozambique." Three presentations.

- International Food Policy Research Institute, Washington D.C., April 2012.
- GTAP Conference, Venice, June 2011.
- Nordic Conference on Development Economics, Copenhagen, June 2011.

"Tracking Poverty in Tanzania and Mozambique." Growth and African Poverty Project Workshop, UNU-WIDER, Helsinki, March 2012.

"Economic Development Under Climate Change." African Development Bank, Tunis, January 2012.

"Implications of Climate Change for Economic Growth and Development in Vietnam." Two presentations:

- Department of Economics, University of Copenhagen, January 2012.
- Central Institute of Economic Management, Hanoi, November 2011.

"Climate Change and the Aid Architecture." Conference on Research and Communication in Foreign Assistance. UNU-WIDER, Helsinki, Finland, September 2011.

"The Economics of Carbon Taxes in South Africa." Department of Economics, University of Cape Town, June 2011.

"Climate Change in Africa: Methodological Issues." African Economic Research Consortium, Nairobi, Kenya, May 2011.

"Comment on Industrialization in Africa by John Page." African Economic Research Consortium, Nairobi, Kenya, May 2011.

"A First Order Dominance Approach to Multi-Dimensional Poverty Measurement." Danish Research Foundation Workshop, Xai Xai, Mozambique, May 2011.

### **Dissemination to General Audiences**

Arndt considers himself a good presenter to general audiences, and he is often involved in dissemination programs through lectures, the popular press, radio and television. Arndt has been interviewed on development policy issues for radio/TV in Mozambique (in Portuguese), in Morocco (in French) and in multiple countries (in English). Recent examples include:

<u>Revisiting State of the Nation Address</u>. The Watchdog. September 1, 2021. One of three panelists for a one-hour prime time television interview broadcast nationwide.

Tumisang Ndlovu (Radio Station Power 98.7, South Africa) <u>speaks</u> to Dr Channing Arndt, director of Environment and Production Technology Division at IFPRI about "<u>Who has been hit hardest by South Africa's lockdown</u>". June 2020.

SABC News <u>interviews</u> Channing Arndt about the release of an initial analysis of the impact of COVID-19 on the South African economy. The Bottom Line. May 2020.

SABC News <u>interviews</u> Channing Arndt about the Economic Analysis of the Impact of COVID-19. #OnPoint, South Africa. May 2020.

Moderator for "Future of the Rural Space" at the Annual Meetings of the World Bank and International Monetary Fund with approximately 400 participants in the Preston auditorium and thousands online. Washington DC. October 2019.

Panelist for "Feeding the Future" sponsored by *The Economist* magazine. London. September 2019.

<u>"Adapting to New Climate Realities: Doing More, Better, and New.</u>" IFPRI seminar with 95 in person, 408 online participants, and 1400 video views within 24 hours. Washington DC. September 2019. A summary <u>video</u> was also produced.

<u>Television interview</u> on South African Broadcasting Corporation on South African energy transitions. SABC Offices, Pretoria, South Africa. August 2019.

Panelist at High Level Panel Forum (HLPF) special event on "Agricultural Inputs towards Goal 13." United Nations, New York. July 2019.

"Faster Than You Think: Renewable Energy and Developing Countries." IFPRI seminar with 53 in house and 408 online participants. Washington DC. June 2019.

"Reversing the Reversal: Turning SDG2 Around." Presentation to an invited audience at the Bank/Fund Spring meetings. Washington DC. April 2019.

"Global Emissions: Trends, Prospects, and Implications." Invited presentation to academics from West Virginia. Washington DC. April 2019.

"Energy." Launch of *Global Food Policy Report*. IFPRI, Washington DC, March 2019.

"Comments on *Hot, Hungry Planet* by Lisa Palmer." Presented to a book launch gathering of about 50 people at the Wilson Center. Washington DC. May 2017.

"Policies for Getting Agriculture Moving." (in Portuguese). Presented to members of parliament and a diverse audience representing civil society, about 150 people, at a conference entitled 'Moçambique: Que caminhos para o future?' Beira, Mozambique.

"Poverty and well-being in Mozambique." (in Portuguese). Presented to a diverse audience at the launch of the Fourth National Poverty Assessment. Maputo, Mozambique, October 2016.

"Growth and Poverty in Sub-Saharan Africa" delivered to staff of the Nordic embassies in Maputo. About 25 people, mostly economists, attended. August 2016.

"An International Perspective on Agricultural Development in Mozambique" delivered to the Second Conference of Nordic embassies in Maputo. The audience of about 100 included government officials, diplomats, NGO representatives, academics, and private sector representatives. May 2016.

"Climate Change and Development Strategy in Africa" delivered at the 38th MIT Joint Program Forum in Muldersdrift South Africa to a diverse audience drawn from across Africa as well as scientists working with the Joint Program and private sector participants from South Africa and large global firms interested in climate change. October 2015.

"Long Term Adaptation Strategies (LTAS) for South Africa" delivered to the LTAS stakeholders workshop (about 100 participants from diverse backgrounds) in January 2014.

"Aid and the Environment" delivered to an open audience including the Ministers for Development Cooperation for Sweden and Denmark, government officials, and non-profit organizations. Parts of the presentation will be televised in Sweden. Stockholm, Sweden. June 2013.

"Climate Change and Development Prospects for Zambia" delivered to an open audience at a session organized by the Association of Zambian Economists. Lusaka, Zambia. May 2013.

"Aid and Growth" delivered to an open audience including high level Nordic officials, journalists, development practitioners, academics, and members of the general public (approximately 150 people in attendance) at the University of Copenhagen, December 2011.

"Climate Change and Developing Countries" delivered to an audience of 70 medical professionals. Providence Tarzana Center, Tarzana, CA, November 2011.

# SUMMARY OF TRAINING AND TEACHING

### **Intensive Short Courses (face to face instruction)**

Since 1998, Arndt has instructed in 27 intensive short courses ranging from one to three weeks in duration and held in diverse locations throughout the world. Arndt served as lead instructor for 13 of those courses and has taken a leading role in course organization for 15 courses. Topics include general equilibrium modeling (both country and global approaches), econometrics, impact evaluation, cost benefit analysis, poverty analysis, and the economics of climate change.

### Distance Instruction

Since 2018, Arndt co-lead the development of distance learning curricula for economic modeling. This curriculum has been delivered to key personnel in India, Bangladesh, Nepal, Nigeria, Kenya, South Africa and Zambia. This approach helped to motivate the development of a distance learning course on application of the Women's Empowerment in Agriculture Index (WEIA).

In collaboration with African Economic Research Consortium, Arndt led the development and implementation of a course examining climate change (also mentioned in the Research Management section). This course was delivered three times in 2011. The first session, held from May-June 2011, focused on the science and biophysical modeling of climate change using a distance delivery mode. The economics of climate change was delivered in an intensive one-week session at the University of Cape Town. Two further sessions were delivered entirely by distance. In total, 56 African scholars from 21 countries completed the course in 2011 illustrating the ability to deliver material effectively and at low cost to individuals with internet access even if they reside in countries with low bandwidth.

As a Faculty Associate with the Center for Global Trade Analysis at Purdue University, Arndt took the lead in the development of web-based teaching modules designed to precede the one week face-to-face course in Global Trade Analysis delivered by the Global Trade Analysis Project. This innovation greatly increased the effectiveness of the face-to-face course as students had already learned many prerequisites related to the underlying economic theories, general organization of empirical approaches, software, and notation. The web-based precursor to the face-to-face intensive course has been running for more than 20 years.

### **Formal University Courses**

Arndt has taught university courses in development economics, quantitative methods, math programming, and international trade to graduates and undergraduates at Colorado State University, University of Copenhagen, and Purdue University. Student evaluations are consistently positive in all courses including the intensive short courses and distance courses mentioned above.