CURRICULUM VITAE

ÉLODIE BLANC

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French Citizen
New Zealand Citizen

EDUCATION

2017	**Kauffman Teaching Certificate** *Massachusetts Institute of Technology (MIT), Cambridge MA, USA*
2011	**PhD in Economics** **Dissertation**: The impact of climate change on crop production in Sub-Saharan Africa (Advisors: Prof D. Fielding and Dr P. Thorsnes) *University of Otago, Dunedin, New Zealand*
2006	**Master in Economics of Sustainable Development, Environment and Energy** **Thesis**: The determinants of cotton production in West and Central Africa (Advisors: Dr P. Quirion and Associate Prof E. Strobl) *École des Hautes Etudes en Sciences Sociales (EHESS), Paris, France*
2005	**Maîtrise in Economics** (equivalent to a taught Master's degree) *Université du Sud-Toulon-Var, Toulon, France*
2004	**Licence in Economics** (equivalent to a Bachelor's degree) *Université du Sud-Toulon-Var, Toulon, France*
2002	**BTS in Computer Sciences** (equivalent to a Technical Diploma) *Lycée Victor Hugo, Marseille, France*

ACADEMIC POSITIONS

2021-2023	**Professional Teaching fellow**: Economics, Markets and Law (B115) *University of Auckland, Auckland, New Zealand*
2018-present	**Research Fellow**: Water, Crops and Land use change *Motu Economic and Public Policy Research, Wellington, NZ*
2013-2020	**Research Scientist**: Water resources allocation modelling, crop modelling *Massachusetts Institute of Technology (MIT), Cambridge MA, USA*
2011-2013	**Post-doctoral Associate**: Water resources allocation modelling *Massachusetts Institute of Technology (MIT), Cambridge MA, USA*
2007-2008	**Teaching assistant**: Principles of Economics (BSNS113); The World Economy (ECON303) *University of Otago, Dunedin, New Zealand*

CONSULTING

2023	Assessing disasters impacts in conflict-affected areas using remote sensing data *World Bank Group, Washington DC, USA*
2022	Measuring the costs of wildfires using satellite imagery *Victoria University of Wellington, Wellington, New Zealand*
2020	Nowcasting and disasters: impact-based forecasting and socioeconomic monitoring *Asian Development Bank, Manilla, Philippines*
2018	Geolocation of urban, peri-urban and rural clusters in Zambia *London School of Economics & Political Science, London, United Kingdom*

31. Noy I., Blanc É., Pundit M., and Uher, T. Nowcasting from space: tropical cyclones' impacts on Fiji's agriculture, ***Natural Hazards***, 2023. [3.158; -]
30. Blanc É. and Noy I., Impacts of droughts and floods on agricultural productivity in New Zealand as measured from space, ***Environmental Research: Climate,*** 2023. [8.431; -]
29. Bell E., Lépine A., Blanc É., and Treibich C., From drought to HIV: An analysis of the effect of droughts on transactional sex and sexually transmitted infections in Malawi, ***SSM - Population Health***, 19, 2022. [4.086; -]
28. Gurgel A., Reilly J.M., and Blanc É., Challenges in Simulating Economic Effects of Climate Change on Global Agricultural Markets, ***Climatic Change***, 166:29, 2021. [5.633; A]
27. Gurgel A., Reilly J.M., and Blanc É., Land use change in the continental United Sates: Are there tipping points?, ***iScience***, 2021. [5.458; -]
26. Blanc É., Aggregation of gridded emulated projections at the national or regional level: rainfed and irrigated crop yields and irrigation water requirements, ***Journal of Global Economic Analysis***, 5(2):138-151, 2020. [- ; B]
25. Blanc É., Statistical emulators of irrigated crop yields and irrigation water requirements, ***Agricultural and Forest Meteorology***, 284:107828, 2020. [5.964; A]
24. Blanc É. and Schlenker W., The use of panel models in assessments of climate impacts on agriculture, ***Review of Environmental Economics and Policy,*** 11(2): 258-279, 2017. [5.64; A]
23. Blanc É., Aggregation of gridded emulated rainfed crop yield projections at the national or regional level, ***Journal of Global Economic Analysis***, 2(2):112-127, 2017. [- ; B]
22. Blanc É. and Reilly J.M., Approaches to assessing climate change impacts on agriculture: an overview of the debate, ***Review of Environmental Economics and Policy,*** 11(2), 247-257, 2017. [8.582; A]
21. Blanc É., Caron J., Fant C., and Monier E., Is current irrigation sustainable in the United States? An integrated assessment of climate change impact on water resources and irrigated crop yields, ***Earth's future***, 5(8): 877–892, 2017. [8.046; -]
20. Blanc É., Statistical emulators of maize, rice, soybean and wheat yields from global gridded crop models, ***Agricultural and Forest Meteorology***, 236:145-161, 2017. [5.964; A]
19. Blanc É. and Strobl E., The impact of typhoons on rice production in the Philippines, ***Journal of Applied Meteorology and Climatology***, 55:993-1007, 2016. [3.02; A]
18. Blanc É., Lépine A, and Strobl E., Determinants of family farms efficiency: evidence from the Senegal River Valley, ***Experimental Agriculture***, 52(1), 2016. [2.292; B]
17. Lépine A, Chandrasekhar S., Le Nestour A., Blanc É., and Vassall, A., Effect of scaling-up HIV prevention services on cost: Evidence from the Avahan initiative in India, ***Social Science and Medicine,*** 131:164-172, 2015. [5.299; A*]
16. Blanc É. and Sultan B., Emulating maize yields from global gridded crop models using statistical estimates, ***Agricultural and Forest Meteorology***, 214:134-147, 2015. [5.964; A]
15. Blanc É. and Strobl E., Water availability and crop growth at the crop plot level in South Africa modelled from satellite imagery, ***Journal of Agricultural Science***, 153(2):306-321, 2015. [1.891; A]
14. Blanc É. and Reilly J.M., Climate change impacts on U.S. Crops, ***Choices*****,** 30(2), 2015.
13. Blanc É. and Strobl E., Is small better? A comparison of the effect of large versus small dams on cropland productivity in South Africa, ***The World Bank Economic Review***, 28(3):545-576, 2014. [2.787; A]
12. Schlosser C.A., Strzepek K.M., Gao X., Gueneau A., Fant C., Paltsev S., Rasheed B., Smith-Greico T., Blanc É., Jacoby H.D., and Reilly J.M., The future of global water stress: an integrated assessment, ***Earth's Future***, 2(8):341-361, 2014. [8.046; -]

[**] Information in brackets reports the 5-year journal impact factors from the Web of Science and Australian Business Deans Council (ABDC) or Excellence in Research Australia (ERA) rankings.

11. Blanc É., Strzepek K., Schlosser C.A., Gueneau A., Fant C., Rausch S., and Reilly J.M., Modeling U.S. water resources under climate change, ***Earth's Future***, 2(4):197-224, 2014. [8.046; -]

10. Valin H., Sands R.D., van der Mensbrugghe D, Ahammad H., Bodirsky B., Hasegawa T., Havlík P., Kyle P., Mason-D'Croz D., Paltsev S., Tabeau A., Blanc É, Fujimori S., Heyhoe E., van Meijl H., Rolinski S., Willenbockel D., von Lampe M., and Nelson GD., The future of food demand: understanding differences in global economic models, ***Agricultural Economics***, 45(1):51-67, 2014. [3.86; A]

9. Nelson G.D., van der Mensbrugghe D., Blanc É., Calvin K., Hasegawa T., Havlík P., Kyle P., Lotze-Campen H., von Lampe M., Mason d'Croz D., van Meijl H., Müller C., Reilly J., Robertson R., Sands R.D., Schmitz C., Tabeau A., Takahashi K., and Valin H., Agriculture and climate change in global scenarios: Why don't the models agree? ***Agricultural Economics***, 45(1):85-101, 2014. [3.86; A]

8. von Lampe M., Willenbockel D., Blanc É., Cai Y., Calvin K., Fujimori S., Hasegawa T., Havlik P., Kyle P., Lotze-Campen H., Mason d'Croz D., Nelson G.D., Sands R.D., Schmitz C., Tabeau A., Valin H., van der Mensbrugghe D., and van Meijl H., Why do global long-term scenarios for agriculture differ? An overview of the AgMIP global economic model intercomparison, ***Agricultural Economics***, 45(1):3-20, 2014. [3.86; A]

7. Schmitz C., van Meijl H., Kyle P., Fujimori S., Gurgel A., Havlik P., Mason d'Croz D., Popp A., Sands R., Tabeau A., van der Mensbrugghe D., von Lampe M., Wise M., Blanc É., Hasegawa T., and Valin H., Land-use change trajectories up to 2050: insights from a global agro-economic model comparison, ***Agricultural Economics***, 45(1):69-84, 2014. [3.86; A]

6. Blanc É., Crop supply in Sub-Saharan Africa and climate change impacts, ***Journal of Development and Agricultural Economics***, 5(9):337-350, 2013.

5. Strzepek K., Schlosser C.A., Gueneau A., Gao X., Blanc É., Fant C., Rasheed B., and Jacoby H.D., Modeling water resource systems within the framework of the MIT Integrated Global System Model: IGSM-WRS, ***Journal of Advances in Modeling Earth Systems,*** 5(1):1-16, 2013. [5.836; -]

4. Blanc É. and Strobl E., Climate change and net primary productivity (NPP) at the river basin scale in Africa, ***Climatic Change***, 117(4):873-890, 2013. [5.633; A]

3. Blanc É. and Winchester N.S., The impact of the EU emissions trading system on air passenger arrivals in the Caribbean, ***Journal of Travel Research,*** 52(3):353-363, 2013. [11.828; A*]

2. Blanc É., The impact of climate change on crop yields in Sub-Saharan Africa, ***American Journal of Climate Change,*** 1(1):1-13, 2012.

1. Blanc É., Quirion P., and Strobl E., The climatic determinants of cotton yields: evidence from a plot in West Africa*,* ***Agricultural and Forest Meteorology***, 148(6-7):1093-1100, 2008. [5.964; A]

BOOK CHAPTERS

3. Bellora C., Blanc É., Bourgeon J.M. and Strobl E., Estimating the impact of crop diversity on agricultural productivity in South Africa, ***NBER book series*** (W. Schlencker Ed.), University of Chicago Press, 2019in editing phase.

2. Blanc É. and Reilly J.M., Chapter 76: Climate change and food situation, ***Encyclopedia of Energy, Natural Resource and Environmental Economics*** (J. Shogren Eds.), Elsevier Science, 22-29, 2013.

1. Reilly J.M. and Blanc É., Economics of agricultural impacts, adaptation and mitigation, ***Handbook of Climate Change and Agroecosystems*** (D. Hillel, and C. Rosenzweig Eds.), Imperial College Press, 403-427, 2010.

WORKING PAPERS

Blanc É., Noy E. and Monge J., Quantification of post-fire vegetation recovery of forests in New Zealand using satellite derived data, submitted to *Economic of Disasters and Climate Change*.

Blanc É., Manzi S., Strobl E. and Walsh F., Measuring agricultural productivity: A micro econometric analysis using vegetation indices panel data, in preparation.

Blanc É., and Strobl E., Impact of the cyclone Nargis on rice production in Myanmar, in preparation.

Chomtoranin J., Strobl E., Elliott R. and Blanc É., The impact of climate change on rice production in Thailand, in preparation.

REFEREEING

The Economic Journal; Science; Nature: Food; European Review of Agricultural Economics; Environmental and Resource Economics; Agricultural and Forest Meteorology; *Empirical Economics; International Economics; Environment, Development and Sustainability; Water Economics and Policy; Climatic Change; Global Environmental Change; Economics of Disasters and Climate Change; Climate Change Economics; Food Policy.*

REVIEW PANELS

US Forest Service Research and Development; Abdul Latif Jameel Water & Food Systems Seed grants, Massachusetts Institute of Technology (MIT).

FUNDING

2020 Endeavour Grant, MBIE*: Extreme Events and the Emergence of Climate Change*, Co-Investigator, $10.3m.

2020 Landcare Research: *Floods and the Primary Sector*, Principal Investigator, $15,000.

2018 Plant and Food Research: *Analysis of potential climate change impacts on horticulture's spatial footprint*, PI, $25,000.

2018 RTI International: *Modeling the Economy and the Electricity Sector to Support EPA's Air Regulation*, Co-Investigator, US$185,000.

2016 US Department of Energy: *An Integrated Framework for Climate Change Analysis*, Co-Investigator, US$1.6M.

2015 US Environmental Protection Agency: *Integrated Assessment of Greenhouse Gases and Climate Impacts*, Co-Investigator, US$50,000.

MEDIA COVERAGE & NON-TECHNICAL ARTICLES

The future of food production amid global change, ***MIT News***, 13/11/2018.

Climate Conversations, Episode 11: Climate, Food Security and Water: Interdisciplinary Insights, ***ClimateX*** podcast, 26/09/2017.

Climate change could curb crop yields by 2050, MIT study says, ***Boston Globe***, 14/07/2017.

Climate change to deplete water supply for Arizona cotton farmers, ***KJZZ News Radio****,* 13/07/2017.

Climate change to deplete some US water basins, reduce irrigated crop yields, ***MIT News***, 11/07/2017.

Assessing crop damage after extreme weather, ***MIT News***, 10/09/2016.

Network of large and smaller dams is best for South African crops, ***ClimateWire***, 22/08/2013.

The impact of climate change on crop yields in Sub-Saharan Africa, ***EcoNZ at Otago****,* 28, 2012.

PROFESSIONAL DISTINCTIONS

2017 Emerald Citations of Excellence for von Lampe et al. (2014).
2007-2010 University of Otago Doctoral Scholarship.

IT SKILLS

Stata, ArcGIS, Python, GAMS, VB, LateX, Matlab, NCL, R.

RESEARCH & TEACHING INTERESTS

Applied econometrics, agricultural economics, environmental economics, development economics, crop modeling, water resources modeling.

CONFERENCES & FORUMS

2024 Big Data for Disaster Response and Management in Asia and the Pacific, Sendai, Japan.
2023 Government Economic Network, Wellington, New Zealand.
Te Punaha Matatini annual hui, Hamilton, New Zealand.
45th MIT Global Change Forum, Cambridge MA.
Capital City Complex Systems Symposium, Wellington, New Zealand.
2021 NBER Conference: Risks in Agricultural Supply Chains, Cambridge MA (remotely).
2019 22nd Annual Conference on Global Economic Analysis, Warsaw, Poland.
Te Pūnaha Matatini Investigator Hui, Auckland, New Zealand.
Otago University Economics Seminar Series, Dunedin, New Zealand. Invited presentation.
2018 DOE Principal Investigator Meeting, Potomac MD.
MIT Agriculture Workshop, Cambridge MA. Invited presentation.
NZARES conference, Wellington, NZ.
2017 NBER Conference: Understanding Productivity Growth in Agriculture, Cambridge MA.
40th MIT Global Change Forum, Warrenton VA.
WEAI Conference, Santiago, Chile.
2016 EcoSummit 2016, Ecological Sustainability: Engineering Change, Montpellier, France.
European Geosciences Union General Assembly, Vienna, Austria.
60th AARES Annual Conference, Canberra, Australia.
2015 21st EAERE Annual conference, Helsinki, Finland.
2014 Colorado College Seminar Series, Colorado Springs CO. Invited presentation.
17th Annual Conference on Global Economic Analysis, Dakar, Senegal.
DOE Principal Investigator Meeting, Potomac MD.
Purdue University Seminar Series, West Lafayette IN. Invited presentation.
2013 Energy Modeling Forum Summer Workshop, Snowmass CO.
16th Annual Conference on Global Economic Analysis, Shanghai, China.
35th MIT Global Change Forum, Cambridge MA. Invited presentation.
MIT Water Night, Cambridge MA.
Agricultural Model Intercomparison and Improvement Project (AgMIP) Meeting, Paris, France.
Joint Program Sponsor Webinar Series, Cambridge MA.
2012 American Geophysical Union Fall Meeting, San Francisco CA.
AgMIP Forum, Rome, Italy.
Ecole Polytechnique Conference: Water Scarcity in Africa, Paris, France. Invited presentation.

34th MIT Global Change Forum, Banff, Canada. Invited presentation.
AgMIP Sub-Saharan Regional Workshop, Nanyuki, Kenya.

2011 AgMIP Forum, San Antonio TX.
Forestry and Agriculture Modeling Forum, Shepherdstown WV.
22nd New Zealand Econometric Study Group Meeting, Dunedin, New Zealand.

2010 Quantitative Methods in Economics Conference, Cluj-Napoca, Romania.

REFEREES

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Wellington, 6011, New Zealand
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