# Curriculum vitae VIJESH V. KRISHNA

International Maize and Wheat Improvement Center (CIMMYT) Headquarters, Carretera Mexico-Veracruz Km. 45, El Batan, Texcoco, C.P. 56237, Mexico Ph.: +52 (55) 5804 2004, ext, 1131 Email: <u>v.krishna@cgiar.org</u>

#### CURRENT RESEARCH INTERESTS

Inclusive development; Adoption and impact of agricultural technologies; Technology targeting; Environmental economics; Rural institutions

#### **PROFESSIONAL APPOINTMENTS**

Sept. 2017-	Lead Economist (Adoption & Impact), CIMMYT, Mexico
2012-2017	Post-Doctoral Research Fellow, University of Göttingen, Germany
2009-2012	Production & Resource Economist, CIMMYT, New Delhi
2008-2009	Post-Doctoral Research Fellow, University of California, Berkeley
2001-2002	Research Associate, Kerala Agricultural University, Thrissur, India

#### EDUCATION

2004-2007	PhD in Agricultural Economics, University of Hohenheim, Germany
	<i>Dissertation title</i> : "Adoption, impacts, and consumer acceptance of genetically modified eggplant in India: An <i>ex ante</i> analysis"
2003-2004	MPhil in Environmental Policy, University of Cambridge, UK
1999-2001	MSc in Agricultural Economics, University of Agricultural Sciences
	Bangalore, India
1994-1999	BSc in Agriculture, Kerala Agricultural University, India

#### FELLOWSHIPS & AWARDS

2011	Short-listed for Robert Bosch Junior Professorship on "Sustainable
	Use of Renewable Natural Resources"

- 2008-2009 Ciriacy-Wantrup Post-Doctoral Fellowship, University of California, Berkeley
- 2003-2004 Department for International Development (DFID) Shared Scholarship, Association of Commonwealth Universities and University of Cambridge
- 1999-2011 Junior Research Fellowship, Indian Council of Agricultural Research

#### **TEACHING & TRAINING EXPERIENCE**

2014-2017	Taught "Microeconomic theory and quantitative methods of agricultural
	production", University of Göttingen
2012-2015	Lectures on "Topics in rural development economics", University of
	Göttingen
2010-2011	Visiting lecturer at the University of Agricultural Sciences Bangalore, and
	MS Swaminathan Research Institute Chennai.

#### FIELD EXPERIENCE

- Conducted rural and urban surveys in India, Indonesia, Nepal, Slovenia, Bangladesh.
- Designed and administered Computer-Aided Personal Interviews (CAPI)

#### EXPERIENCE IN INDEPENDENT RESEARCH PROJECT MANAGEMENT

2009-2012	"Cereal Systems Initiative of South Asia" (CSISA), jointly funded by the United
	States Agency for International Development (USAID) and Bill and Melinda
	Gates Foundation (BMGF)
2010-2012	"Sustainable Intensification of Smallholder Maize-Livestock Farming Systems
	in Hills Area of South Asia" funded by the International Fund for Agricultural
	Development (IFAD)
2009-2012	"Abiotic Stress-Tolerant Maize for Increasing Income and Food Security
	among the Poor in South and Southeast Asia" funded by the Federal Ministry
	of Economic Cooperation and Development (BMZ) and the Deutsche
	Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

### REVIEW AND ADVISORY ACTIVITIES, CERTIFICATES, PROFESSIONAL ASSOCIATIONS

- Reviewed research papers for 32 academic journals (as of Feb. 2019): Nature Plants; American Journal of Agricultural Economics; World Development; Ecological Economics; European Review of Agricultural Economics; Agricultural Economics; Land Economics; Food Policy; Agricultural Systems; Economics and Human Biology; Journal of Agricultural Economics; Natural Resources Forum; Land Use Policy; Journal of Forest Economics; Environmental and Development Economics; Environment, Development, and Sustainability; Journal of the Association of Environmental and Resource Economists; Renewable Agriculture and Food Systems; Economic Botany; Journal of Agricultural and Resource Economics; Water Economics and Policy; Journal of Rural Studies; Review of Development Economics; Current Science; Food Security; Journal of Integrative Agriculture; Quarterly Journal of International Agriculture; African Journal of Agricultural Research; Journal of Agriculture and Rural Development in the Tropics and Subtropics; AgBioForum; Sustainability; Journal of Agricultural Science and Technology.
- Referee for CIMMYT Working Paper Series (2010-2012), and International Conference of Agricultural Economists (2018, 2015, 2012, 2009)
- Undertaken and successfully completed the following career-development courses: "Human Subjects Research – Social-Behavioral-Educational (Basic; CITI Program)" in 2018; "Project Management for Development Professionals" (PMD Pro; Level 1) in 2018; "Introduction to Systematic Review and Meta-Analysis" (by Johns Hopkins University) in 2018.
- Supervised the research work of more than 20 Master degree students while working in CIMMYT and University of Göttingen
- Examiner of PhD theses with Jawaharlal Nehru University (JNU) New Delhi, University of Göttingen, and Indian Institute of Technology (IIT) Guwahati.
- Research collaborations with Basque Centre of Climate Change (BC<sup>3</sup>), Spain; University of Ljubljana, Slovenia
- Ernst Strüngmann Forum for Agrobiodiversity (2016)
- Member, International Association of Agricultural Economist (2018-2020)
- Life-time member of Indian Society of Agricultural Economists (ISAE)
- Lifetime member of Indian Society for Ecological Economics (INSEE)

## LANGUAGES

Mother tongue: Malayalam Fluent: English, Hindi Intermediary: Spanish Basic: Indonesian, Tamil

# **COMPUTER PACKAGES**

Stata, R

### **RESEARCH PAPERS**

### I. UNDER REVIEW

- 1. Kubitza, C., **Krishna, V.V.**, Schulthess, U., Jain, M. "Adoption and impact estimation of agricultural innovations using satellite data: A scoping review". Submitted to *Agriculture, Ecosystem and Environment* in April 2019.
- 2. Grass, I., Kubitza, C., **Krishna, V.V.** et al. "Trade-offs between multifunctionality and profit in tropical smallholder landscapes." Submitted to *Nature Communications* in April 2019.
- 3. Chrisendo, D.N.; **Krishna, V.V.**, Siregar, H., Qaim, M. "Land-use change, nutrition, and gender roles in Indonesian farm households." Submitted to *Feminist Economics* in January 2019.

### II. PUBLISHED IN ACADEMIC JOURNALS

- 1. **Krishna, V.V.**, Darras, K., Grass, I. et al. (2019) "Wildlife trade and consumer preference for species rarity: An examination of caged-bird markets in Sumatra." *Environmental and Development Economics* (in press).
- 2. Paudel, G., **Krishna, V.V.**, McDonald, A. (2019) "Apparent gains, hidden costs: Examining adoption drivers, yield, and profitability outcomes of rotavator tillage in the wheat systems of Nepal." *Journal of Agricultural Economics* (in press).
- 3. Krishna, V.V., Aravalath, L.M., Vikraman, S. (2019) "Does caste determine farmer access to quality information?" *PLoS ONE* 14(1): e0210721.
- 4. Kubitza, C., **Krishna, V.V.**, Urban, K., Alamsyah, Z., Qaim, M. (2018) "Land property rights, agricultural intensification, and deforestation in Indonesia." *Ecological Economics*, 147: 312-321.
- 5. Bou Dib, J., **Krishna, V.V.**, Alamsyah, Z., Qaim, M. (2018) "Land-use change and livelihoods of non-farm households: The role of income from employment in oil palm and rubber in rural Indonesia." *Land Use Policy* 76: 828-838.
- 6. Kubitza, C., **Krishna, V.V.**, Alamsyah, Z., Qaim, M. (2018) "The economics behind an ecological crisis: Livelihood effects of oil palm expansion in Sumatra, Indonesia." *Human Ecology* 46(1):107-116.
- 7. Krishna, V., Euler, M., Siregar, H., Qaim, M. (2017). "Differential livelihood impacts of oil palm expansion in Indonesia." *Agricultural Economics*, 48(5), 639-653.
- 8. Krishna, V.V., Kubitza, C., Pascual, U. Qaim, M. (2017) "Land markets, property rights, and deforestation: Insights from Indonesia." *World Development* 99: 335-349.
- 9. Euler, M., **Krishna, V.V.**, Schwarze, S., Siregar, H. Qaim, M. (2017) "Oil palm adoption, household welfare and nutrition among smallholder farmers in Indonesia". *World Development* 93: 219-235.
- 10. Veettil, C.P., **Krishna, V.V.**, Qaim, M. (2017) "Ecosystem impacts of pesticide reduction through Bt cotton adoption". *Australian Journal of Agricultural and Resource Economics* 60: 115-134.
- 11. Clough, Y., **Krishna, V.V**. et al. (2016) "Land-use choices follow profitability at the expense of ecological functions in Indonesian smallholder landscapes". *Nature Communications* 7: 13137.
- 12. Drescher et al. (2016). "Ecological and socioeconomic functions across tropical landuse systems after rainforest conversion." *Philosophical Transactions of the Royal Society B*, 371: 20150275.

- 13. Krishna, V., Zilberman, D., Qaim, M. (2016). "Transgenic crops, production risk and agrobiodiversity." *European Review of Agricultural Economics*, 43(1): 137-164.
- 14. Krishna, V.V., Spielman, D.J., Veettil, C.P. (2016) "Exploring the supply and demand factors of varietal turnover in Indian wheat". *Journal of Agricultural Science*, 154(2): 258-272.
- 15. Sibhatu, K.T., **Krishna, V.V.**, Qaim, M. (2015). "Production diversity and dietary diversity in smallholder farm households". *Proceedings of the National Academy of Sciences USA*, 112(34): 10657-10662.
- Sibhatu, K.T., Krishna, V.V., Qaim, M. (2015). "Reply to Remans et al.: Strengthening markets is key to promote sustainable agricultural and food systems". *Proceedings of the National Academy of Sciences USA*, 112(45): E6083.
- Sibhatu, K.T., Krishna, V.V., Qaim, M. (2015). "Reply to Berti: Relationship between production and consumption diversity remains small also with modified diversity measures". Published online at *Proceedings of the National Academy of Sciences* USA, 112(42): E5657.
- Raghu, P. T., Erenstein, O., Böber, C., Krishna, V. V. (2015). "Adoption and outcomes of hybrid maize in the marginal areas of India". *Quarterly Journal of International Agriculture*, 54(2): 189-214.
- 19. Krishna, V.V., Erenstein, O., Sadashivappa, P., Vivek, B. S. (2014) "Potential economic impacts of biofortified maize in the Indian poultry sector". *International Food and Agribusiness Management Review* 17(4): 123-152.
- 20. Krishna, V.V., Veettil, P.C. (2014) "Productivity and efficiency impacts of conservation tillage in northwest Indo-Gangetic Plains". *Agricultural Systems* 127: 126-138.
- Krishna, V.V., Drucker, A.G., Pascual, U., Raghu, P.T., King, I.O.E.D. (2013) "Estimating compensation payments for on-farm conservation of agricultural biodiversity in developing countries". *Ecological Economics* 87:110-123.
- 22. Krishna, V.V., Qaim, M. (2012) "Bt cotton and sustainability of pesticide reductions in India". *Agricultural Systems* 107: 47–55.
- 23. **Krishna, V.V.**, Pascual, P., Zilberman, D. (2010) "Assessing the potential of labeling schemes for *in situ* landrace conservation: an example from India". *Environment and Development Economics* 15: 127-151.
- 24. Krishna, V.V., Qaim, M. (2008) "Consumer attitudes towards GM foods and pesticide residues in India". *Applied Economic Perspectives and Policy* 30(2): 233-251.
- 25. Krishna, V.V., Qaim, M. (2008) "Potential impacts of Bt eggplant on economic surplus and farmers' health in India." *Agricultural Economics* 38(2): 167-180.
- 26. **Krishna, V.V.**, Qaim, M. (2007) "Estimating the adoption of Bt eggplant in India: Who benefits from public-private partnership?" *Food Policy* 32(5/6): 523-543.
- 27. Tamizheniyan, S., Umesh, K.B., Krishna, V.V. (2004) "An economic assessment of integrated pest management." *Journal of Rural Development* 23: 231-244.
- Tamizheniyan, S., Umesh, K.B., Krishna, V.V. (2003) "Economics of integrated pest management in rice production in Tiruvarur district, Tamil Nadu." *Agricultural Economic Research Review* 16(1): 12-23.

#### **III. BOOK CHAPTERS**

 Almekinders, C.J.M., Stone, G.D., Baranski, M., Carney, J.A., Hanspach, J., Krishna, V.V., Ramirez-Villegas, J., van Etten, J., Zimmerer, K.S., 2019. Socioecological interactions amid global change. In Zimmerer, K.S. and de Haan, S. (eds.) Agrobiodiversity: Integrating knowledge for a sustainable future. Cambridge, MA: The MIT Press, pp. 117-144.

- Krishna, V.V., Keil, A. Aravindakshan, S., Meena, M. (2017) "Conservation tillage for sustainable wheat intensification in South Asia." In Langridge P. (ed.) *Achieving sustainable wheat cultivation*, Burleigh Dodds Science Publishing Limited, Cambridge (UK).
- 3. **Krishna, V.V.** and Pascual, U. (2009) "Can greening markets help conserve landraces *in situp*" In Pascual, P., Kontoleon, A., and Smale, M. (eds.) *Agricultural biodiversity and economic development*, Routledge, New York.
- 4. Dedeurwaerdere, T., **Krishna, V.V.**, and Pascual, U. (2007) "An evolutionary institutional approach to the economics of bioprospection". In Kontoleon, A., Pascual, U., and Swanson, T. (eds.) *Biodiversity economics: Principles, methods and applications*, Cambridge University Press, UK.
- Krishna, V.V. and Qaim, M. (2007) "Potential socio-economic impacts of Bt eggplant in India". In Ramasamy, C., Selvaraj, K.N., Norton, G.W. and Vijayaraghavan, K., (eds.) *Economic and environmental benefits and costs of transgenic crops: Ex-ante assessment*. Tamil Nadu Agricultural University, Coimbatore.
- Krishna, V. V., Byju, N. G., and Tamizheniyan, S. (2003) "Integrated pest management in Indian agriculture: Developing an economic perspective." In E.B. Radcliff (ed.), *IPM World Textbook.* Hutchson, WD St. Paul, MN.

### **IV. OTHERS**

- Kubitza, C., Bou Dib, J., Kopp, T., Krishna, V.V., Nuryartono, N., Qaim, M., Romero, M., Klasen, S. (2019) "Labor savings in agriculture and inequality at different spatial scales: The expansion of oil palm in Indonesia." EFForTS Discussion Paper 26. Goettingen: University of Goettingen, Germany.
- 2. Chrisendo, D., **Krishna, V.V.**, Siregar, H., Qaim, M. (2019) "Land-use change, nutrition, and gender roles in Indonesian farm households" EFForTS Discussion Paper 24. Goettingen: University of Goettingen, Germany.
- 3. Bou Dib, J., **Krishna, V.V.**, Alamsyah, Z., Qaim, M. (2018) "Land-use change and livelihoods of non-farm households: The role of income from employment in oil palm and rubber in rural Indonesia." EFForTS Discussion Paper 21. Goettingen: University of Goettingen, Germany.
- 4. Qaim, M., Sibhatu, K.T. Krishna, V.V. (2016). "Market access and farm household dietary diversity." *Rural 21*, 01: 12-14.
- Krishna, V., Qaim, M., Zilberman, D. (2016). "Did transgenic cotton cause varietal diversity erosion in India?" *Information Systems for Biotechnology (ISB) News Report* (March/April 2016), VirginiaTech USA, pp. 1-5.
- Krishna, V.V., Euler, M., Siregar, H., Fathoni, Z., Qaim, M. (2015) "Farmer heterogeneity and differential livelihood impacts of oil palm expansion among smallholders of Sumatra, Indonesia." EFForTS Discussion Paper 13. Goettingen: University of Goettingen, Germany.
- Euler, M., Krishna, V.V., Schwarze, S., Siregar, H., Qaim, M. (2015) "Oil palm adoption, household welfare and nutrition among smallholder farmers in Indonesia". EFForTS Discussion Paper 12. Goettingen: University of Goettingen, Germany.
- 8. **Krishna, V.V.**, Pascual, U. and Qaim, M. (2014) "Do emerging land markets promote forestland appropriation?" EFForTS Discussion Paper Series No. 7. Goettingen: Georg-August University of Goettingen, Germany.

- 9. Veettil, C.P., **Krishna, V.V.** and Qaim, M. (2014) "Bt cotton and ecosystem impacts of pesticide reduction". RTG 1666 GlobalFood Discussion Series No. 41. Goettingen: University of Goettingen, Germany.
- 10. **Krishna, V.V.**, Spielman, D. Veettil, P.C., and Ghimire, S. (2014) "An empirical examination of the dynamics of varietal turnover in Indian wheat". International Food Policy Research Institute Discussion Paper Series, Washington D.C.: IFPRI.
- 11. **Krishna, V.V.**, Qaim, M., and Zilberman, D. (2014) "Transgenic crops, production risks, and agrobiodiversity". Centre for Development Research Discussion Paper Series on Development Policy No. 186, Bonn: ZEF.
- Faust, H., et al. (2013). "Assessment of socio-economic functions of tropical lowland transformation systems in Indonesia: Sampling framework and methodological approach". EFForTS Discussion Paper Series No. 1. Goettingen: University of Goettingen, Germany.
- 13. Veettil, P.C. and **Krishna, V.V.** (2013) "Productivity and efficiency impacts of zero tillage wheat in northwest Indo-Gangetic Plains" Working paper, Institute of Economic Growth, New Delhi: IEG.
- Ghimire, S., Dhungana, S., Teufel, N., Sherchan, D.P. and Krishna, V.V. (2013) "Biophysical and socio-economic characterization of cereal production systems of Central Nepal". Socio-Economics Program Working Paper No. 9, International Maize and Wheat Improvement Center, Mexico, D.F.: CIMMYT.
- 15. **Krishna, V.**, Aravindakshan, S., Chowdhury, A., and Rudra, B. (2012) "Farmer access and differential impacts of zero tillage technology in the subsistence wheat farming systems of West Bengal, India". Socio-Economics Program Working Paper No. 7, International Maize and Wheat Improvement Center, Mexico, D.F.: CIMMYT.
- 16. **Krishna, V.**, Bhatia, M., Teufel, N. and Bashnoi, D. (2012) "Characterizing the cereal systems and identifying the potential of conservation agriculture in South Asia". Socio-Economics Program Working Paper No. 5, International Maize and Wheat Improvement Center, Mexico, D.F.: CIMMYT.
- 17. Deurwaerdere, T., **Krishna, V.V.**, and Pascual, U. (2005) "Bioprospecting and intellectual property rights: A dynamic approach to economic efficiency". Environmental Economy and Policy Research discussion paper No. 13. 2005. Department of Land Economy. University of Cambridge, UK.

V. SELECTED CONFERENCE PRESENTATIONS

- 1. Triennial Conference, International Association of Agricultural Economics (IAAE), Vancouver, Canada, 2018
- 2. World Plantation Conference, Bali, Indonesia, 2017 (Invited speaker)
- 3. Land and Poverty Conference 2017, World Bank, Washington DC, 2017
- 4. Agricultural and Applied Economics Association (AAEA), Boston, US, 2016
- 5. Joint University of California Davis & University of Göttingen Workshop, Göttingen, Germany, 2016
- 6. Invited talk. First Berlin Forum on Indian Agriculture, Berlin, Germany, 2014
- 7. World Congress of Environmental and Resource Economics, Istanbul, Turkey, 2014
- 8. Plenary speaker. Conference of the International Consortium on Applied Bio-economy Research, Nairobi, Kenya, 2014
- 9. European Association of Agricultural Economists Congress at ETH Zurich, Switzerland, 2011
- 10. 'Mind the Gap: From evidence to policy impact', Cuernavaca, Mexico, 2011
- 11. Triennial Conference, International Association of Agricultural Economics, Beijing, China, August, 2009
- 12. Joint Annual Conference, Agricultural and Applied Economics Association and American Council on Consumer Interests, Milwaukee, US, 2009

- 13. Joint Annual Conference, American Agricultural Economics Association, the Western Agricultural Economics Association, and the Canadian Agricultural Economics Society, Portland, US, 2007
- 14. International Conference on 21<sup>st</sup> Century Challenges to Sustainable Agri-Food Systems, Bangalore, India, 2007
- 15. Biennial Conference of the International Society for Ecological Economics, New Delhi, India, 2006
- 16. Deutscher Tropentag, Bonn, Germany, 2006
- 17. Triennial Conference, International Association of Agricultural Economics, Brisbane, Australia, 2006
- 18. Annual BIOECON Conference on 'Economics and the analysis of biology and biodiversity', Cambridge, UK, 2004
- 19. Biennial Conference of International Society for Ecological Economics, Montreal, Canada, 2004
- 20. International Conference on Society, Politics, The Economy and The Environment-Implications for socioeconomic progress in 21<sup>s</sup> century, Bangalore, India, 2001