

Curriculum Vitae

Arjunan Subramanian
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Employment History

2014– Reader in Economics, University of Glasgow, UK.
2011–2014 Lecturer in Economics, University of Glasgow, UK.
2008–2010 Research Associate, Warwick University, U.K.
2007–2008 Senior Researcher, University of Göttingen, Germany.
2004–2007 Research Associate, University of Hohenheim, Germany.
2003–2004 Junior Researcher, Centre for Development Research (ZEF), University of Bonn, Germany.
1995–2003 Economist, National Council of Applied Economic Research, New Delhi, India.

Academic Qualifications

2004–2007 PhD in Agricultural Economics, 'Distributional effects of agricultural biotechnology in a village economy: The case of cotton in India', University of Hohenheim, Stuttgart, Germany. Funded by German Research Foundation (D.F.G.). Awarded with Summa cum Lauda in July 2007.
2003–2004 PhD. Course work, University of Bonn, Bonn, Germany.
1994–1996 M.Phil in Applied Economics, Jawaharlal Nehru University, New Delhi, India.
1990–1992 M.A. in Economics, Madras University, India.
1986–1989 B.A. in Economics, Madras University, India.

Esteem Indicators

Research awards

- Award for outstanding Journal article in Review of Agricultural Economics 2007, American Agricultural Economics Association.
- Research Medal for outstanding research on development 2001, Global Development Network, World Bank, New Delhi.

Reviewer for research grants

- Invited reviewer for the M.R.C. under the Future Leaders Fellowships (F.L.F.) Scheme, 2019-20, U.K. Research and Innovation.
- Carnegie Trust Research Assessor for Arts, Humanities and Social Sciences (AHSS) – Research Incentive Grant Scheme. 2018 (ongoing).
- Invited member of the ESRC peer review college. 2013 (ongoing).
- Invited member of the EPSRC peer review college. 2014 (ongoing).
- International reviewer for Halftime S.D.G. project, The Copenhagen Consensus Center think tank evaluating development interventions, 2021(ongoing).
- Peer reviewer for BBSRC. 2015.
- Reviewer for the outline grant application under the 2nd call DFID/ESRC funded Growth program, 2013.
- Reviewer for the full grant application research program under the DFID-ESRC Growth Research Programme Call 2. 2013.
- Invitation to act as a Rapporteur for the Economic & Social Research Council (ESRC) funded project Sustainable Cultivation of Productive Environments (SCoPE), March 2013.

Invited talks/chair

- Invited talk in the GIDS Webinar Lecture 2nd, Giri Institute of Development Studies, Lucknow, India. February 9, 2022.
- Invited talk in (Online) Economics Seminar Series, Lancaster University Management School, February 2, 2022.
- Invited talk in the International and Intercollegiate Webinar on October 30, 2021, in the History of Social and Economic Development organised by Sri Sarada College for Women, Salem and Pachaiyappa's College, Chennai, India.
- Invited talk in the India Agricultural Outlook Forum 2019, 26-27 September 2019 in the Ministry of Agriculture, Cooperation and Farmers Welfare, Government of India, New Delhi.
- Chaired the session on "Institutions" in the 14th Annual Conference on Economic Growth and Development, Indian Statistical Institute, New Delhi, India. December 21, 2018.
- Invited talk on Land Titling in the NITI Aayog, a premier think-tank of the Government of India formulating policies with the aim of achieving Sustainable Development Goals. December 18, 2018.
- Invited talk at National Council of Applied Economic Research, New Delhi, December 18, 2018.
- Invited participation at the U21 Workshop Informing Climate Action 2016 at the University of Maryland, College Park, U.S.A. 3-4 May 2016.
- Invited talk to a multidisciplinary audience of crop and livestock scientists at Scotland's Rural College (SRUC), University of Edinburgh, February 6, 2014.
- Invited presentation at the Overseas Development Institute (London) DEGRP grant holder workshop, 28-29 October 2013.

- Invited to chair a session on Agriculture in the 8th International Conference on Public Policy and Management, Centre for Public Policy (C.P.P.), Indian Institute of Management Bangalore, August 12-14, 2013.
- Invited presentation at the Scottish Institute for Research in Economics Young Researchers Forum (SIRE) in the University of Strathclyde Business School, Glasgow (U.K.), October 31, 2012.
- Invited presentation at the United Nations University of Maastricht - UNU-MERIT, The Netherlands, September 4, 2008.

Reviewer for Journals

- Journal of Development Economics
- Applied Economics
- Food Policy
- Journal of Agricultural Economics
- World Development
- American Journal of Agricultural Economics
- Applied Geography
- Journal of International Development
- Agricultural Economics
- Sustainability
- Global Food Security

Teaching & Related Administration

Teaching qualification

2011 – 2013 Postgraduate Certificate in Academic Practice, University of Glasgow, Glasgow.
Fellow of the Higher Education Academy, U.K.

Pedagogical leadership

- Course coordinator for 2 MSc courses: Theory and Principles in Sustainability; Policies for Sustainability and Development. 2012 (ongoing)

Teaching courses

- University of Glasgow, UK: MRes – Research Methods and Research Design. 2018 – 2022.
- University of Glasgow, UK: MRes – Principles and practices in development policy. 2020–21.
- University of Glasgow, UK: MSc - Development Policy; Policies for Sustainability and Development; Theory and Principles of Sustainability. 2011 – 2022.
- University of Glasgow, UK: Undergraduate degree Year 2 – Microeconomics, first and second semester, 2011.

- University of Warwick, UK: MSc – Environmental Accounting and Ecosystem Services, Autumn Term 2009.
- University of Warwick, UK: MSc – Econometrics and development economics, spring term 2009.
- University of Hohenheim, Germany: MSc – Non-parametric econometrics, winter semester 2005 and 2006.

Student supervision of Honours and MSc dissertation

- Supervised 30 Honours students and 35 MSc students since 2012.

Student supervision of MRes Economics dissertation

- Vivek Rao on his second-year summer project: Measuring the effectiveness of minimum unit pricing of alcohol: Evidence from a randomised control trial in India. 2020-2021.
- Mustafa Hoshmand on his first-year summer project: Is poppy still the cause of conflict in Afghanistan? An empirical analysis of provincial data. 2019-2020.
- Maria Suella Rodrigues on her second-year summer project: An analysis on the de facto ownership of farmland without legal title deeds and its impact on crop yield in India. 2016-2017.

Student supervision PhD

- Wenchao Bu on her PhD thesis: Environmental Regulation and FDI Inflow- Evidence from the Eleventh Five-Year Plan. University of Glasgow-Nankai Joint PhD program, January 2022.
- Abdisalam A. Mohamed on his PhD thesis: The Effect of International Remittances on Economic Development & Growth in Somalia: Evidence from Household Survey. University of Glasgow, UK, September 2020.
- Fernando Agra-Lorenzo on his PhD thesis: Empirical Essays on Modern Agricultural Supply Chains. Studies on Dairy Markets. Jointly with Scotland's Rural College Edinburgh. September 2017.
- Chomba Kalunga on her PhD thesis: The curse of natural resources: The case of copper in Zambia. University of Glasgow, UK, September 2013-2018. **Awarded.** Employed as Lecturer at Coventry University, U.K.
- Hikojiro Fujiwara on his PhD thesis: Culture, evolution of preferences and conceptions in economic theory. University of Glasgow, UK, September 2012-2017. **Awarded.**
- Oluwadamilola Agbato on her PhD thesis: Mental accounting, proportionality and frame dependence: An evaluation in relation to price perception. University of Glasgow, UK, September 2011-2016. **Awarded.** Employed as Lecturer at Coventry University, U.K.

Examining duties

Internal examiner

- Jiangteng Zhou on his PhD thesis titled "The effect of transportation infrastructure development on firm performance: evidence from China", submitted to the University of Glasgow, February 2021. Awarded.
- Timothy Birabi on his PhD thesis titled "Essays on cultural and institutional dynamics in economic development using spatial analysis", submitted to the University of Glasgow, April 2016. Awarded.

External examiner

- Appointed External Examiner to the MSc in Food Security program at the University of Edinburgh for four years November 1, 2018, to October 31, 2022.

Other administrative duties

- PhD Convener for Economics since August 2021.
- College appeals committee member since February 2020.

Advisor of studies

- Providing support, information and impartial advice to 48 Master of Arts (Soc) students in relation to curriculum choice and academic progress since the year 2015.

Research & Related Administration

Research papers refereed

- Subramanian, A. (2021) Harnessing digital technology to improve agricultural productivity? *PLoS O.N.E.*, 16(6). doi: 10.1371/journal.pone.0253377.
- Husnain, M. I. U., Subramanian, A. and Haider, A. (2018) Robustness of geography as an instrument to assess impact of climate change on agriculture, *International Journal of Climate Change Strategies and Management*, (doi:10.1108/IJCCSM-03-2017-0049) (Early Online Publication).
- Subramanian, A., and Kumar, P. (2017) The impact of price policy on demand for alcohol in rural India, *Social Science & Medicine* 191, 176-185.
- Kadir, M., Subramanian, A., Miniappan, N., and Ayob, M. (2016) "Neural network for farm household output prediction" *Journal of Applied Sciences* 16(12), 594-599.
- Subramanian, A., Purohit, P., and Naik, G. (2015) "What is information worth for an extra quintal of grain?: Randomised experimental evidence from farmers in India" *Proceedings of the Agricultural Economics Society Conference*.
- Kadir, M., Hines, E., Qaddoum, K., Collier, R., Dowler, E., Grant, W., Leeson, M., Ilescu, D., Richards, K., Merali, Y. and Napier, R., and Subramanian, A. (2013) "Food

security risk level assessment: A fuzzy logic based approach." *Applied Artificial Intelligence* 27 (1), 50-61.

- Naik, G., Basavaraj, K.P., Hegde, V.R., Paidi, V., and Subramanian, A. (2013) "Using geospatial technology to strengthen data systems in developing countries: The case of agricultural statistics in India." *Applied Geography* 43(9), 99-112.
- Subramanian, A. and Qaim, M. (2011) "Interlocked village markets and trader idiosyncrasy in rural India." *Journal of Agricultural Economics* 62(3), 490-709.
- Subramanian, A. and Qaim, M. (2010) "The impact of Bt cotton on poor households in rural India." *Journal of Development Studies* 46(2): 295-311.
- Subramanian, A. and Qaim, M. (2009) "Village-wide Effects of agricultural biotechnology: The case of Bt cotton in India." *World Development* 37(1): 256-267.
- Subramanian, A., Kirwan, K., Pink, D., and Qaim, M. (2010) "G.M. crops and gender issues." *Nature Biotechnology* 28(5), 404-406.
- Qaim, M., Subramanian, A., and Sadashivappa, P. (2010) "Commercialised G.M. Crops and Yield." *Nature Biotechnology* 27(9): 803-804.
- Naik G., Qaim, M., Subramanian, A., and Zilberman, D. (2005) "Bt cotton controversy: Some paradoxes explained." *Economic and Political Weekly* 40(15): 1514-1517.
- Pramod Kumar, Pradhan, B. K., and Subramanian A. (2005) "Farmland prices in a developing economy some stylised facts and determinants." *Journal of International and Area Studies* 12(2): 93-113.
- Subramanian, A., and Pradhan, B. K. (2003) "On the stability of demand for money in a developing economy: Some empirical issues." *Journal of Development Economics* 72(1): 335-351.
- Subramanian, A., Kundu, A., and Pradhan, B. K. (2002) "Dichotomy or continuum: An analysis of impact of urban centres on their periphery." *Economic and Political Weekly* 14(): 5039-5046.
- Subramanian, A., and Pradhan, B. K. (1998) "Money and prices: Some evidence from India." *Applied Economics* 30(6): 821-827.
- Subramanian, A., and Pradhan, B. K. (1997) "On the stability of demand for money in the Indian economy." *The Indian Economic Journal* 45(1): 106 -117.

Book chapters

- Subramanian, A. and Qaim, M. (2010) Benefits of transgenic plants: A socioeconomic perspective. In: F. Kempken, C. Jung (Eds.). *Genetic Modification of Plants*. Springer, Heidelberg, pp. 615-628.
- Qaim, M., Subramanian, A., and Sadashivappa, P. (2010) Socioeconomic impacts of Bt cotton. In: U. Zehr (Ed.). *Cotton – Biotechnological Advances*. Springer, New York.
- Subramanian, A. (1996) "Inter-sectoral terms of trade revisited". In Ray, J., and Gupta, M. R. (eds.) *Themes on Development Economics*, Allied Publishers Limited, India.

Book

- Subramanian, A. (2007) *Distributional effects of agricultural biotechnology in a village economy: The case of cotton in India*, Cuvillier Verlag, Göttingen.

Working papers/Monographs

- Subramanian, A. (2021) "Harnessing digital technology to improve agricultural productivity". SSRN: <https://ssrn.com/abstract=3860333>.
- Subramanian, A. and Kumar, P. (2020) "Institution and development: Experimental evidence of land titling on welfare gains in India". In: 12th World Congress of the Econometric Society/Bocconi University, Milan, Italy, 17-21 August 2020, (Unpublished). SSRN: <https://ssrn.com/abstract=3440171>.
- Subramanian, A. (2018) *Farm surveys from experimental intervention in agriculture in the India state of Karnataka*. [Data Collection]. Colchester, Essex: U.K. Data Archive.
- Naik, G., Basavarajappa, K. P., Hegde, V. R., Paidi, V., and Subramanian, A. (2012) "Reliability of agricultural statistics in developing countries: Reflections from a Comprehensive Village Survey on Crop Area Statistics in India" (November 9, 2012). I.I.M. Bangalore Research Paper No. 381. Available at SSRN: <http://ssrn.com/abstract=2179712> or <http://dx.doi.org/10.2139/ssrn.2179712>.
- Subramanian, A., Kundu, A., and Pradhan, B. K. (2002) "Dichotomy or continuum: An analysis of the impact of urban centres on their periphery" National Council of Applied Economic Research working paper WP040005, New Delhi, India.
- Subramanian, A., and Pradhan, B. (2000) "Education, openness and the poor: Analysis of an all-India survey of sample households." National Council of Applied Economic Research discussion paper No. DP020015, New Delhi, India.
- Subramanian, A., and Pradhan, B. (2000) "On the stability of demand for money in a developing economy." National Council of Applied Economic Research discussion paper No. DP020012, New Delhi, India.
- Subramanian, A. (2000) "Are income-calorie elasticity's really high in developing countries?: Some implications for nutrition and income." National Council of Applied Economic Research mimeo, New Delhi, India.

Popular writings

- Subramanian, A., Pradhan, B. (1997) "Reinforce the markets", Guest Column The Economics Times March 3.
- Subramanian, A. (1996) "Why procurement prices fail", The Economic Times June 23.

Completed and work in progress

- Can higher incomes really improve nutrition? With Parmod Kumar. Draft paper.
- Structural transformation, production shock and labour allocation. With Parmod Kumar.

Paper presented at Economics Seminar Series, Lancaster University Management School, 2 February 2022.

- Property rights, factor allocation and household welfare: Experimental evidence from a land titling program in India. With Parmod Kumar. Draft paper.
- Insurgency, investment and tillage: Evidence from two conflicts in India, results presented at the Behaviour, Structure and Interventions (B.S.I.) Network on "Inequality, Conflict and Violence", University of Glasgow, UK. 9-10 June 2016.
- Competition, kinship or reciprocity? Village experiments in alternative modes of exchange (with Matin Qaim). International Association of Agricultural Economists conference paper.
- How sustainable is the sustainable materials technology? The case of poly lactic acid.
- On the distribution and scale of biorefining plants in the U.K.
- Role of technology in climate change: The case of bioplastics P.L.A. International Consortium on Biotechnology Research (ICABR) conference paper.
- Overcoming twin market failures in climate-friendly technology. Submitted to Climate Change.
- Energy price, induced innovation and technological change. Submitted to Energy Economics.
- Household income and alcohol consumption in village India.

Peer reviewed conference and workshop presentation

- Cornell conference on 100 Years of Economic Development, Cornell University, U.S.A. 15-17 September 2022.
- Royal Economic Society Annual Conference 2022. April 2022.
- Econometric Society/ Bocconi University Virtual World Congress, 17-21 August 2020.
- European Economics Association Virtual Congress 2020. 24 – 27 August 2020.
- 14th Annual Conference on Economic Growth and Development, Indian Statistical Institute, 19-21 December 2019.
- Inaugural Sustainability and Development Conference, University of Michigan, Ann Arbor, Michigan, U.S.A., 9-11 November 2018.
- Econometrics Society Conference Paris Dauphine University, France. December 2018.
- American Economic Association meeting in Philadelphia, PA. 5-7 January 2018.
- Econometrics Society Conference at Wuhan University, China. December 2017.
- Joint one day workshop at the Institute of Social and Economic Change, India under the ESRC-DFID project on the Impact of Extension Education on Crop productivity and Farmer's Income in Karnataka. 31 August 2017.
- European Winter Meeting of the Econometric Society, Edinburgh University, Edinburgh, U.K. 10-11 December 2016.
- Delhi School of Economics Winter School, New Delhi, India. 13-15 December 2016.

- Collaborative workshop in Glasgow-Nankai University, China. 19-24 October 2015.
- Scottish Workshop in Development Economics, Department of Economics, University of Edinburgh, Edinburgh. 26 May 2016.
- 8th Annual Conference on Economic Growth and Development, Indian Statistical Institute, New Delhi. 17-19 December 2012.
- 12th International Consortium on Agricultural Biotechnology Research (ICABR) Conference on the theme "Bioeconomy Governance: Policy, Environmental and Health Regulations, and Public Investments in Research" Ravello (Italy). 16-18 June 2010.
- 12th International Consortium on Agricultural Biotechnology Research (ICABR) Conference on The Future of Agricultural Biotechnology: Creative Destruction, Adoption, or Irrelevance? Ravello (Italy). 12-14 June 2008.
- International Association of Agricultural Economists Conference, Gold Coast, Australia. 12-18 August 2006.
- Modelling workshop on C.G.E., Micro simulation and Double Calibration at the University of Laval, Quebec, Canada. This event was supported by the International Development Research Centre, Canada. 16-30 June 2002.
- C.G.E. Modeling Workshop jointly organised by CREFA of the University of Laval, Quebec and the CREA of the university Cheick Anta Doap. This event was supported by the International Development Research Centre, Canada. 2-11 May 2002 at Dakar, Senegal.
- Workshop on Public Expenditure and Poverty Reduction from January 26 to February 4 supported by the International Development Research Centre (IDRC), Ottawa- Canada, and organised jointly with Institut National de Statistique et d'Economie Appliquée (INSEA), Rabat-Morocco.
- Global Development Network second annual awards competition, 9-12 December 2001 held at Rio de Janeiro, Brazil.
- 24th International Union for the Scientific Study of Population (IUSSP) Conference, 18-24 August 2001 at Salvador-Bahia, Brazil.
- Conference on Money and Finance in the Indian Economy, 2-4 December 1998 at Indira Gandhi Institute of Development Research, Mumbai.
- Conference on Economic Theory and Policy, 9-11 January 1997 held at the Indian Statistical Institute, New Delhi.
- VI Annual Conference on Contemporary Issues in Development Economics, 22-24 December 1997, Jadavpur University, Calcutta.

Other research-related administration

- Mentorship of early career lecturer Souvik Dutta, Lecturer, April 2016- March 2019.
- Team Leader and Principal Investigator of the ESRC-DFID Growth Programme project. This collaborative project under my leadership was implemented along with a full team of 23 members, including 1 Co-Investigator, 8 Post-Doctoral Research Associates, 3 Research Associates and 5 Research Assistants, 4 extension agents and 2 field enumerators employed in the ESRC-DFID funded project in two countries, India and U.K. 2012-2018.
- Mentor and line manager to a team consisting of 2 Post-Doctoral Research Associates and 5 junior staff employed in funded project based in U.K. 2012-2021.
- Member of the appointment committee to recruit for the post of Lecturer in Environmental Economics. 2016.
- Member of the appointment committee to recruit for the post of Post-Doctoral Research Associate. 2013.

Research Grants and Collaborations

Recent grants

- COVID funding, University of Glasgow, £10,000. March-July 2021.
- Network grant from The Global Challenges Research Fund, University of Glasgow to build research partnerships in Africa. £29,500. Multidisciplinary funding jointly with colleagues Jelmer Vos, Lecturer, School of Humanities and Richard Randle-Boggis, Research Associate, School of Engineering. October 2018-March 2019.
- Funding for one student to receive PhD scholarship worth £50,000 jointly in partnership with Scotland's Rural College Edinburgh. September 2017- September 2020
- Funding for one student to receive Lord Kelvin Adam Smith Scholarship, "Remote Medical Sensor Technologies (RMST): A behaviorally informed health intervention", Value £80,000. Multidisciplinary funding with Co-Investigators: Dr. Ravinder Dahiya (College of Science and Engineering) and Dr Megan Coyer (College of Arts). September 2015- September 2019.
- Invitation to the Partnership building workshop fund for the joint Newton-Bhabha funded call 'UK-India Agricultural Data: Enhancement by Integration, Interpretation and Reusability'. Funding supported by BBSRC. Value £10,000. November 2018.

- Information, market creation and agricultural growth, Principal investigator in the project jointly funded by ESRC / DFID under the ESRC-DFID Growth Programme, Value £433,147. November 2012-October 2017.
- Scalable solar thermoelectric and photovoltaics (SUNTRAP), Co-investigator (economics) in the multidisciplinary project involving different departments and universities (Andrew Know from Engineering, Duncan Gregory from Chemistry and six other colleagues from within the Glasgow University and four from various universities across Scotland and England.) Project funded by EPSRC, Value £3 million, July 2013-August 2017.
- The Royal Society of Edinburgh (R.S.E.) funding under INTERNATIONAL EXCHANGE PROGRAMME Bilateral - Travel from Scotland. Value £1900, June-July 2012.
- Adam Smith Foundation Seedcorn Funding 2013-14, December 2013 – June 2014, Value £2000.

Past grants

- Energy Dependence and Food Security, Co-investigator in the project funded by Department for Environment, Food and Rural Affairs (Defra), Value £100,000. February 2010-February 2011.
- To produce a methodology for assessing the environmental, economic and social characteristics of (organic and non-organic) farming systems. Co-investigator in the project funded by Department for Environment, Food and Rural Affairs (Defra), Value £520,000. September 2009-September 2012.
- Poverty and rural welfare effects of agricultural biotechnology in India. Co-investigator in the project funded by the German Research Foundation (D.F.G.), Germany. Value 17, 090 Euro. June 2007-December 2008.
- Modern agricultural technologies: economic and institutional implications in developing countries. Co-investigator in the project funded by the German Research Foundation (D.F.G.), Germany. Value 55, 187 Euro. October 2003-September 2007.

Current international collaborations

- Collaboration on a project with Fairtrade International, Germany. I am the Lead Researcher on the project executed as a consortium with Scio Network GmbH & Co KG, Germany and Athena Infonomics, India, funded under the Fairtrade COVID-19 Emergency Initiatives by the federal ministry for economic cooperation and development

(B.M.Z.). March 2021. Multicounty project implemented in Indonesia, Peru and Kenya. May 2021-August 2022. €106K.

- Collaboration with Professor Parmod Kumar at Giri Institute of Development Studies, India, on the project titled Alcohol consumption and household welfare in Punjab, India. 2012 (ongoing).
- Joint implementation of the ESRC-DFID project with Professor Gopal Naik based at the Indian Institute of Management Bangalore, India. 2012-2015.
- Collaborated with Professor Raymond Fishman at Columbia University and Professor Vikrant Vig from the London Business School on the project titled Cause and consequence of civil conflicts in India. 2014-2016.
- Provided social science expertise to the proposed development of a strategic relationship between the Africa Centre for Health and Population Studies and social scientists in the Institute of Health and Wellbeing led by Professor Sally Wyke. 2015-2017.

Professional Academic Activities beyond the University

- External foreign expert in the Technical Review Panel (T.R.P.) for academic promotions formed by the Department of Management Sciences, COMSATS University of Islamabad (Pakistan). May 2021.
- Providing social science expertise on agriculture to the Overseas Development Institute (ODI) London. 2014 (ongoing).
- External member of the Doctoral Advisory Committee for S Rajeshwaran, PhD candidate at the Indian Institute of Management, Bangalore, India. August 2012- July 2015.

Arjunan Subramanian

Glasgow, April 2022