

Curriculum Vitae

Badri Narayanan Gopalakrishnan

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Summary

Experienced Researcher/Data Scientist, Applied Economist, Policy/Business Consultant, and Inter-disciplinary Scientist with extensive experience publishing papers, producing and managing global economic datasets and models widely used by academic/policy/industry researchers and analysts across the world. Internationally published in the areas of trade, energy, environment, disruptive technologies, agriculture, labor, health and manufacturing, cutting across disciplines, with numerous citations in top journals like Nature and American Economic Review; peer reviewer and editorial board member for several international journals. Strong analytical and management background as PI as well as hands-on contributor for grant-funded and consulting projects with top universities like Purdue University, Harvard University and London School of Economics, as well as leading firms like McKinsey, KPMG and PWC.

Professional Experience

- November 2020-present **Non Residential Fellow**, *CSEP, New Delhi*.
- August 2019-present **Senior Fellow**, *European Center for International Political Economy, Brussels*. Conducting several research studies on topics like trade policies/Free Trade Agreements across the world and technology regulations.
- December 2015-present **Affiliate Faculty Member and Senior Economist**, *Center for International Trade in Forestry, School of Environmental and Forest Sciences, University of Washington Seattle*: Guiding PhD students/Post-Doctoral Fellows and Writing several research grants in the intersection of trade, environment, forestry and economic modeling and teaching 5-credit course on Global Trade and Disruptive Technologies at BS/MS level.
- April 2015-present **Founder and Director**, *Infinite Sum Modelling*: With registered offices in Vancouver, Seattle, New Delhi, Hong Kong and Beijing, this firm is involved in economic model-based consulting, Artificial Intelligence, Business Analytics, Data Science, Machine Learning and Blockchain technologies, for both public and private sector.
- August 2015-present **Consulting Economist**, *McKinsey Global Institute*: Developing economic modeling capacity as the lead modeler and working on several client-facing projects for Fortune-500 companies in sectors such as government, logistics, transportation, container shipping, automotive, retail, chemicals and agribusiness as well as research studies on natural resources and productivity. Topics included alternative fiscal policies to counter revenue losses from oil price reduction, immigrant policies, toll roads, Free Trade Agreements, Foreign Direct Investment, infrastructure spending impact, business strategy planning, investment decisions, etc.
- May 2007- August 2016 **Research Economist** at *Center for Global Trade Analysis, Purdue University, West Lafayette*: Leading member of a team that manages the production of global economic datasets and models used by thousands of researchers/analysts across the world: GTAP (Global Trade Analysis Project) Data Base; PI in funded/independent research and consulting projects; Teaching in short courses on Global Economic Analysis as well as full semester courses; methodological innovations in data/models, respectable publication record as well as policy research/consulting activities and highly commended management style that involved tangible timebound outputs with coordination among hundreds of researchers across the world, many of whom contributed on volunteering basis.
- 2014 **Adjunct Professor of Economics** at *College of Business, Purdue University, Calumet*: Taught a full semester, 3-credit course on International Economics to Undergraduate Seniors in the College of Business.
- 2006-2007 **Fellow** at *Indian Council for Research on International Economic Relations (ICRIER), New Delhi, India*: Served as PI in research projects, mainly on auto industry for the Government of India.
- 2005-2006 **Teaching and Research Assistant in Econometrics** at *IGIDR¹, Mumbai, India*

¹ Ranked among the top 90 economic research organizations in the world and No:1 in India: www.econphd.econowiki.com/rank/rallec.htm

- 2003-2005 **Teaching and Research Assistant in Environmental and Development Economics** at *IGIDR, Mumbai, India*: Co-ordinator of research projects for Governments of Maharashtra (Pollution Control Board: State of the Environment in Maharashtra) and India (Planning Commission: Maharashtra Development Report); Lecturer of a course module on environmental economics.
- 2002 **Assistant Production Manager** at *DGM Textiles, Tirupur, India*: In-Charge of Production of a new unit involved in manufacturing knitwear exported to EU, US and Canada, reporting to the CEO of the company.

Consulting and Advisory Experience

2020-present, **Advisor and Senior Associate**, Athena Infonomics Inc., Washington DC.

2020-present, **Consultant**, Overseas Development Institute, London, on the economic modeling capacity development in Dhaka, for the government and industry associations.

2020-present, **Consultant**, United Nations Conference on Trade and Development, Geneva, on the economics of pandemics and fiscal sustainability

2019-present, **Consultant**, International Rice Research Institute, Manila, on several projects on the economics of trade, food policy, emissions and sustainable development

2019-present, **Consultant**, United Nations Development Programme, Cairo, on Arab Customs Union's economic impact

2019-present, **Consultant**, Asian Development Bank, Manila on several trade and global pandemic related projects

2019, **Consultant**, EU Trade Related Assistance for Mongolia (TRAM) and Ministry of Foreign Affairs, Government of Mongolia, UlaanBataar.

2018-present, **Consultant**, Ministry of Micro, Small and Medium Enterprises, Government of India.

2018-present, **Advisor on Blockchain and other disruptive technologies' economics and strategy** at *Vermouth Inc., Seattle WA, Annie Stacks Inc., Seattle WA, Dataneetix, Los Angeles CA, NECF Inc., Boston MA, Make in LA, Los Angeles CA, Tim Blockchain, Singapore, Complete Intelligence, Singapore.*

2017-present, **Advisory Board Member** The Dialogue, New Delhi.

2017-present, **Consultant: Data Science** at *Harvard University Beth Israel Medical Center, MA*: A project on fundraising strategies

2017-present, **Consultant: Economic Research** at *United Nations Economic and Social Commission for Asia Pacific*: A research paper on trade and sustainable development goals.

2016-present, **Consultant** at *United Nations Economic Commission for West Asia*: Development of datasets for North African and West Asian countries in GTAP Data Base, analysis of pandemic impact, etc.

2017-2018, **Consultant: Economic Analysis** at *Seetharaman and Associates, New Delhi, India*

2015-2019 **Consultant** at *Food and Agricultural Organisation, Rome*: Pursued a research project on Russia's food import bans; another project on trade, domestic support, distortions and global food security.

2014-2017 **Consultant** at *International Institute of Sustainable Development, Canada*: Pursued research projects on modeling the pluri-lateral trade agreements and on NAFTA Renegotiations.

2014-2015 **Consultant** at *International Center for Trade and Sustainable Development, Geneva*: Pursued a research project on modeling the role of tariffs in global manufacturing sectors.

2014-present **Consultant** at *World Health Organisation, Geneva*: Pursued research projects in the area of tobacco control policy modeling and presented in a workshop in WHO-Geneva.

2014-present, **Consultant** at *The Commonwealth Secretariat, London*: Several projects on impact of free trade agreements among Commonwealth countries, trade facilitation and governance.

2012-present **Short-Term Consultant** at *The World Bank Group, Washington DC*: Presented in a World Bank workshop in India on environmental policy tools and models; Pursued research projects in the areas of modeling water scarcity and agri-business sector in India and rest of South Asia as well as developing models and datasets to address many economic issues in African countries, green trade-gender nexus and trade-environment-employment linkages.

2012-present **Consultant** at *The European Commission, Brussels*: Pursued several research projects in the areas of modeling of EU-Andean trade pact, development of datasets and models of public procurement, domestic support, EU-Australia-NewZealand FTA, EU-MERCOSUR FTA, EU-Mexico FTA, etc., through London School of Economics and CEPR, London

2012 **Consultant** at *Price WaterHouse Coopers, Germany*: Provided consulting services to perform a model development to analyze the energy market deregulation in Turkey.

Teaching Experience

- May 2020: Guest Lecture on Analytics and Economic Modelling for Fashion Industry. NIFT New Delhi India.
- February-March 2020: Trade Modeling for Policy Makers and Industry Leaders, Dhaka, Bangladesh.
- Autumn 2019: A five-credit undergrad level course on “Global Trade and Disruptive Technologies” for the Jackson School of International Studies, University of Washington Seattle (JSIS 267).
- January 2019: One day workshop on economic modeling for researchers at CEEW (Center for Energy, Environment and Water) New Delhi
- January 2019: A Workshop on Artificial Intelligence, Machine Learning, Business Intelligence, Data Visualization and Economic Modeling, for entrepreneurs and government officials, in All India Management Association New Delhi and National Institute for Micro Small and Medium Enterprises Hyderabad.
- September 2018: A Course on Global Economic Analysis, for the Economic Modeling Division, International Monetary Fund, Washington DC.
- February 2018: A Workshop on Global Economic Modeling, Center for International Trade in Forestry Products, University of Washington.
- December 2017: A Workshop on Analysis and Modeling of Global Economic Issues in Indian Context at NIT Trichy, funded by GIAN: Global Initiative for Academic Network, Government of India.
- July 2017: Lectures on Computable General Equilibrium Modelling at IIT Delhi.
- Spring 2017: Lectures on Economics of Health Policy to students pursuing Masters in Nutrition and Public Health at Bastyr University.
- Fall 2014: ECON 43400: International Trade at Purdue University Calumet.
- Spring 2015: Research Guide for a course on Data Visualization for MS Data Science students at Indiana University Bloomington, for two groups of students, to visualize trade data.
- 2007-2017: Faculty at the Annual Short Courses on Global Economics Analysis at Purdue University (2007, 2008, 2010, 2011, 2014 and 2015), UNESCAP, Bangkok (2009), UNECA, Ethiopia (2011), George Mason University, USA (2012) and Bahcesehir University, Turkey (2013).
- 2011 and 2013: Guest Lecturer in the course on *Applied General Equilibrium Analysis* offered by Prof. Tom Hertel in the Department of Agricultural Economics, Purdue University (AGEC 618)
- 2007-2017: Co-developer of and lecturer in the courses on *Contributing Input-Output Tables to GTAP* at Purdue University (2007) and Finland Ministry of Economic Affairs, Helsinki (2008) and UNECA, Ethiopia (2011).
- 2005-06: Teaching Assistant, Econometric Applications course taught to the graduate students at IGIDR
- 2004-05: Taught a module on Environmental Economics to the graduate students at IGIDR
- Spring 2015: IND 701/15b: International Agricultural Trade and Policies. Bakke Graduate University, Seattle, Washington (Offered Online).
- Spring 2015: International Economics. Amrita School of Business, Coimbatore, India (Offered Online).

- December 2014: Lectures on Computable General Equilibrium Modeling, Quality Improvement Workshop, Indian Institute of technology, Kanpur (Offered Online)
 - October 2014: Friday University Course on Inter-disciplinary Approaches to regional Economic Development, Purdue University Calumet.
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Board Memberships and other *pro-bono*/Honorary Appointments

- 2019-present, **Member, Advisory Board**, *HR Consulting at Cornell University, Ithaca NY.*
- 2019-present, **Member, Board of Directors**, *British American Business Connections, Seattle USA*
- 2018-present, **Founder Director and Treasurer**, *Cancer Aid Society, Seattle USA*
- 2018-present, **Mentor for Start-ups** at *Make in LA, Los Angeles CA*
- 2018-present, **Advisor on analytics and strategy** at *Datanetiix, Los Angeles CA*
- 2018-present, **Advisor on economic policy and business development** at *Avatar Blockchain, Los Angeles CA*
- 2018-present, **Advisor on Economic Modeling** at *Complete Intelligence, Singapore*
- 2017-present **Advisor**, *The Dialogue, New Delhi, India.*
- 2016-present **International Advisory Board Member**, *Global Small and Medium Enterprises Development Network, Mumbai, India.*
- 2015-present **Advisor**, *ARTNeT (Asia-Pacific Research and Training Network on Trade), United Nations Economic and Social Commission for Asia and the Pacific, Bangkok, Thailand*
- 2015-present **Honorary Member**, *FARF (Fundamental Action and Research Network), Bangalore, India.*
- 2014-present **Honorary Adjunct Professor**, *Amrita School of Business, Coimbatore, India.*
- 2014-2016 **Member, Board of Directors and Vice-President, Finance and Fund-raising**, *Young Professionals Chronic Diseases Network, Harvard Global Equity Initiative, Boston, Massachusetts.*
- 2014-present **Member, International Advisory Board**, *Government and economic Integration through Free Trade Agreements (GIFTA), Economic and Social Research Institute, London, United Kingdom.*
- 2014-present **Contributing Writer**, *MarketExpress Blog, Mumbai, India.*
- 2013-present **Fellow**, *South Asian Network of Economic Modeling, Dhaka, Bangladesh*
- 2006-07 **Participating Member**, *Steering Committee for Industry, Eleventh Plan, Planning Commission, Government of India, New Delhi, India.*
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Educational Qualifications²

- 2006: Ph.D. in *Economics*, *Indira Gandhi Institute of Development Research(IGIDR), Mumbai.*³
- 2002: Bachelor of Technology (B.Tech) in *Textile Technology*, *PSG College of Technology*⁴, *Coimbatore.*

Areas of Interest: *Agricultural Economics, Management and Policy/Strategy, Blockchain Economics and Strategy, Artificial Intelligence, Machine Learning, Health Economics, Applied Econometrics/Time series, Data Mining, Demand Analysis, International Trade, Industrial Economics, Labor Economics, Productivity Analysis, Computable General Equilibrium (CGE) and simulation modeling, Environmental Economics, Development, Network Science.*

² First Class with Distinction and top 5 in the respective batches from school to PhD

³ Dissertation Committee Members: Dr. Kausik Chaudhuri Visiting Professor, Indian Institute of Management, Bangalore and Senior Lecturer, Leeds University; Dr. Kirit Parikh, Former Member, The Planning Commission and Founder Director, Integrated Research and Action in Energy, New Delhi and Dr. K.V. Ramaswamy, Professor, IGIDR.

⁴ Ranked among the top 11 Indian Engineering Colleges

Areas of Expertise within Applied Econometrics: Panel Data Analysis (Fixed/Random Effects, Dynamic Panel, Panel Tobit, etc.), Time-Series Analysis, Stochastic Frontier Analysis, Data Envelopment Analysis, Demand Systems (Quadratic Almost Ideal Demand Systems, Dynamic Linear Logit, etc.), Seemingly Unrelated Regressions (SUR - Panel and cross-section), Discrete choice and censored regression models, Gravity models (Pseudo-Poisson Maximum Likelihood), Time Series (Unit roots, causality, co-integration, VAR, VECM, panel time series, etc.) and application of econometric estimates in CGE and simulation models.

Research Profile: Summary

- Number of Refereed Publications (including reviews and book chapters): 100 in journals such as **Nature Communication, British Medical Journal: Tobacco Control, Agricultural Economics, Energy Economics, Economic Modelling, Applied Economics, Applied Economics Letters, Information Technology and management, Review of Regional Studies, Economic Systems Research, Journal of Economic Structures, Journal of Food and Agricultural Economics, Journal of Applied Economic Research, Engineering Design Graphics Journal** and **Economic and Political Weekly**; Books: 5;
 - Google Scholar Citations from all publications: 4315; h-index:16; i10-index: 31. Citations appeared in outlets such as **American Economic Review, Proceedings of National Academy of Sciences, The Economist, Nature, Economic and Political Weekly**, etc.
 - Media Coverage: Financial Times, The Economist, MoneyControl, South China Morning Post, Russian Times, Yahoo News, Economic Times, Swarajya, The Hindu, Indian Express, Dainik Jagaran, Dainik Bhaskar, Punjab Kesari, PNChannel, The Hans India, Telengana Today etc.
 - Citations for GTAP Data Base⁵ from 2009 after the publication of version 7 by Narayanan and Walmsley, 2008: 12000+
 - Peer reviewer for 15 international journals, editorial board member for two of them
 - 61 presentations/papers in international conferences/proceedings; 43 more in workshops and invited seminars
 - Sole/Joint PI for over 54 projects.
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Fellowships and Academic/Other Honours

- GTAP Research Fellow (2017-2020) an Honor awarded for significant contributions to the field of global economic analysis.
- Fellowship (2002-2007) to pursue PhD from Indira Gandhi Institute of Development Research, Mumbai
- Fellowship with an invitation to participate in the 'Meeting with Nobel Laureates in Economics' at Lindau, Germany, during 1-4, September 2004, for research discussion with 11 Nobel Laureates in Economics (Awarded to two PhD students from India, based on rigorous tests and interviews).
- Fellowship to pursue a course titled 'South Asia Short Course on Global Trade Analysis' held from 28th November 2005 for three months, organized by Purdue University, USA.
- Listed as a member of International Biographical Centre, Cambridge, England, among the "Leading Professionals of the World 2013".
- Listed in the 26th, 27th, 28th and 35th Editions of *Marquis Who's Who in the World* (2009, 2010, 2011 and 2018)
- Listed in 2008-09 Honors Edition of Madison's Who's Who Among Executives and Professionals.

⁵ This needs to be reported here to get a fair idea of citations, because many scholars fail to cite GTAP Data Base appropriately including the names of the authors, but they merely cite it as "GTAP Data Base" in the text.

- 2015 IATRC (International Agricultural Trade Research Consortium) Meetings: One among the four commissioned papers on Trade Policy, selected based on a worldwide competition.
- Multiple grants for presenting papers/seminars/lectures/meetings in **27 countries across the world: Australia, Bangladesh, Belgium, Canada, Chile, China, Colombia, Ethiopia, Finland, Germany, India, Italy, Japan, Mexico, Mongolia, Saudi Arabia, Senegal, Spain, South Korea, Sri Lanka, Sweden, Switzerland, Thailand, Turkey, United Arab Emirates, United Kingdom and USA; online in 4 countries: Cyprus, New Zealand, Pakistan & Philippines.**

Visiting Positions

- June 2015 **Visiting Researcher** at *Center of Policy Studies, Victoria University, Melbourne, Australia*
- June 2015 **Visiting Researcher** at *European Commission - DG Trade, Brussels*
- May-June 2015 **Visiting Researcher** at *European Commission- Joint Research Center, Institute for Prospective Technologies and Standards (IPTS), Seville*
- November 2014 **Visiting Researcher** at *World Health Organization, Geneva*
- August 2014 **Visiting Researcher** at *World Bank, Washington DC*
- May 2014 **Visiting Researcher** at *Center for WTO Studies, Indian Institute of Foreign Trade, New Delhi, India*
- October 2013 and March 2014 **Visiting Researcher** at *Center for Environmental and Resources Economics, Umea, Sweden.*
- September-October 2013 **Visiting Researcher** at *International Trade Center, Geneva, Switzerland*
- August 2013 **Visiting Faculty at the Annual Short Course on Global Economic Analysis** at *Bahcesehir University, Istanbul, Turkey*
- August 2012 **Visiting Faculty at the Annual Short Course on Global Economic Analysis** at *George Mason University, USA*
- April 2011 **Visiting Faculty at the Annual Short Course on Global Economic Analysis** at *United Nations Economic Commission for Africa, Addis Ababa, Ethiopia*
- August 2009 **Visiting Faculty at the Annual Short Course on Global Economic Analysis** at *United Nations Economic and Social Commission for Asian and the Pacific, Bangkok, Thailand*
- December 2008 **Visiting Researcher** at *Research Institute for Economics and Business Administration, Kobe University, Japan.*
- June 2008 **Visiting Faculty at the Course on Input-Output Tables** at *Government Institute of Economic Research (VATT), Helsinki, Finland*
- Provided consultancy services and pro-bono technical advice to several clients including the World Bank, PriceWaterHouse Coopers, United Nations (UNCTAD, ILO), US Federal governmental agencies (e.g. USITC, USDA), Canadian government (Statistics Canada, Environment Canada), the European Commission, the World Health Organisation, Governmental agencies and research organizations in India (e.g. NMCC, Ministry of Environment and Forests, Prasar Bharati, NCAER, IIFT, ICRIER, Madras School of Economics.).

Professional Memberships

National Association for Business Economics: 2017 - Present

International Input Output Association: 2015 - Present

Association of Scientists of Indian Origin in America (ASIOA): 2015 - Present

Agricultural and Applied Economics Association (AAEA): 2011 - Present
American Economic Association (AEA): 2011 - Present
International Agricultural Trade Research Consortium (IATRC): 2011 - Present
Institute of Electrical and Electronics Engineers (IEEE): 2014 - 2016
The Indian Econometric Society (TIES): 2004 - 2006.

Papers in Refereed Journals

1. Engström, G., J Gars, C Kiran, R Calel, T Lindahl, Badri G Narayanan and D Spiro (2020). *Carbon pricing and Planetary Boundaries*. **Nature Communication** **11**, 4688. <https://doi.org/10.1038/s41467-020-18342-7>
2. Mohakud, S., A Singh, S Jagadale, A Pandey and Badri G Narayanan (forthcoming). *Financial Inclusion in Rural India: A Case Study of Mahuapur*. **DME Journal of Management**.
3. Karthikeyan, P., N Mani, M. Manikandan and Badri G Narayanan (forthcoming). *Forecasting Inflation Rate in India*. **Finance India**.
4. Mohanty, R., A. Sarangi, B Bhushan, A Pandey and Badri G Narayanan (2020). *Water Conservation Techniques in Rural India: A Case Study of Bhikharirampur, UP*. **International Journal of Innovative Technology and Research**. July.
5. Dwijendra Dwivedi, Adhithya Balasubramanian and Badri G Narayanan (2020). *Emissions, Temperature and Economic Growth: An Empirical Analysis of Europe*. **EPRA International Journal of Multidisciplinary Research**. 6(6): 382-7.
6. Debashish Sahu, Dhruv Sawhney, Anand Pandey and Badri G Narayanan (2020). *Barriers in Improving Education Quality: A Case Study of Rural India*. **International Journal of Innovative Technology and Research**. June (Bagged the best paper award)
7. Abhinav Saravanan and Badri G Narayanan (2020). *The Role of Disruptive Technologies in Health and Sustainability*. **International Journal of Innovative Technology and Research**. June
8. Somya Mathur and Badri G Narayanan (2020). *Analysis of Trade Liberalization of the Blue Economy in Indian Ocean Rim Association*. **Journal of Indian Ocean Rim Studies** 3(1): 76-123. Jan-June. Available Online at <https://www.iora.int/media/24207/jiors-special-issue-on-blue-economy-january-june-2020-min-1.pdf>
9. Sanjeet Mahapatra, Anand Pandey and Badri Narayanan (2020). *Socio-economic Analysis of Effectiveness of Implementation of a Employment Guarantee Scheme at Local Level: A Study of a Village in India*. **Socio-economic Challenges** 4(2): 23-30, June.
10. Agrawal, M, Pradhan, S, Pandey, A and Narayanan, B (2020). *Barriers in Implementation of Sanitation Projects: A Case Study of Open Defecation Free India*. **Journal of Development Economics and Management Research Studies** 4(4): 1-17, April-June.
11. Narayanan B, and Aitharaju, R (2020). *Digital Transformation and Sustainability: A Post-COVID Impact Analysis of Global Businesses*. **International Journal of Innovative Technology and Research**, May.
12. Pandey R, Subhankar GP, Jagdale SR, Pandey A, Narayanan B, Kanvinde R (2020). *Causes of Undernourishment: A Field Study in Rural India*. **Advances in Agriculture, Horticulture and Entomology** 2(3): 1-17, April-June.
13. Narayanan B, and Seshadri, S (2020). *Estimating Potential Operational Cost Savings by Migrating On-Premises to Cloud: A Study using Amazon TCO*. **International Journal of Innovative Technology and Research**, May.
14. Sami-ul Haque, Ken Foster, Roman Keeney, Kathryn Boys and Badri Narayanan. (2019) *Output and Input Bias Effects of US Direct Payments*. **Agricultural Economics** 50(2):229-236.
15. Jean Balie and Badri Narayanan. (2019). *What Should be the Focus of Agricultural Policy Reforms in Sub-Saharan Africa? A CGE Analysis*. **Margin: Journal of Applied Economics** 13(4): 401-35.

16. Manitra A. Rakotoarisoa, Sangeeta Khorana and Badri Narayanan. (2019). *Trade Liberalization - Labor Productivity Nexus: The Case of Sub Saharan Africa*. **Socio-Economic Challenges** 3(1): 5-26.
17. Kenichi Kawasaki, Badri Narayanan, Houssein Guimbard and Arata Kuno. (2019). *Analysis of the Role of Tariff Concessions in East Asia*. **Margin: Journal of Applied Economics** 13(2): 141-67.
18. Manikandan M., Mani N., Karthikeyan P., and G. Badri Narayanan. (2019). *Relationship between Money Supply, Output and Price Level in India*. **ASERC Journal of Socio-Economic Studies** 2(1): 13-29.
19. Niladri Das, Rohit Sharma, Anand Pandey and Badri Narayanan (2018). *The Existence of Carpet Industry in Bhadohi, India*. **Trends in Textile Engineering and Fashion Technology**: 3(3): DOI: 10.31031/TTEFT.2018.03.000563.
20. Veena Jha, Badri Narayanan, Deepika Wadhwa and Jean Tesche (2018) . *Economic and Environmental Effects of reduction in smoking prevalence in Tanzania*. **British Medical Journal: Tobacco Control**: November 2, doi: 10.1136/tobaccocontrol – 2018 – 054635. .
21. Narayanan, G. Badri (2018). *Technical and Industrial Textiles in India: An Economic Overview*. **Trends in Textile Engineering and Fashion Technology**: 1(1): DOI: [10.31031/TTEFT.2018.01.000503](https://doi.org/10.31031/TTEFT.2018.01.000503).
22. Narayanan, G. Badri (2018). *Global Economic Scenario of Technical and Industrial Textiles*. **Trends in Textile Engineering and Fashion Technology**: 1(1): DOI: [10.31031/TTEFT.2018.01.000504](https://doi.org/10.31031/TTEFT.2018.01.000504).
23. Terrie Walmsley, Angel Aguiar and Badri Narayanan. (2018). *Building a global database: consequences for the national Input~Output data*. **Economic Systems Research**.
24. Jeff O'Hara, Badri Narayanan and Kranti Mulik. (2018). *Impacts of Hypothetical Fruit and Vegetable Consumption Changes in North America*. **International Journal of Food and Agricultural Economics**.
25. Jean Balie, Anna Strutt, Signe Nielsen and Badri Narayanan. (2018). *Infrastructure Investments for Improved Market Access in Sub Saharan Africa*. **African Journal of Agricultural and Resource Economics**.
26. Sangeetha Gunasekar, Rojalin Patri and Badri Narayanan (2018). *International Tourist Arrival in India: Impact of Mumbai 26/11 Terror Attack* **Foreign Trade Review** 53(1): 1-17.
27. Badri Narayanan, Isha Jaswal and Lipika Sharma (2017). *Recent Regionalism in UK and USA: A Legal and Economic Analysis* **SocioEconomic Challenges** 1(4): 23-34.
28. Narayanan, Badri G. and Sangeeta Khorana (2017). *Mega-Regional Trade Agreements: Costly Distractions for Developing Countries?* **Journal of Economic Structures** 6:29.
29. Badri Narayanan, Naveen Kadasala, K V L V Narayan Achari and Seshadev Sahoo (2017). *International Trade Policies and Sustainability of Nano-textiles* **Socio-Economic Challenges** 1(2): 27-33.
30. Sangeeta Khorana and Narayanan, Badri G. (2017). *Modelling the effects of Tariff Liberalisation on India's Key Export Sectors: Analysis of EU-India Free Trade Agreement* **Margin: The Journal of Applied Economics** 11(1):1-22.
31. Amlan Ray and Narayanan, Badri G. (2017). *India's Services Trade: In the Perspective of RTAs with ASEAN* **Review of Development Studies**.
32. Rodrigo Mesa-Arango, Narayanan, Badri G. and Satish Ukkusuri (2017). *The impact of international crises on maritime transportation based global value chains* **Networks and Spatial Economics**.
33. Badri Narayanan and Isha Jaswal (2017). *Trade impact of SADC-India FTA on textiles and clothing sectors* **Business Ethics and Leadership Journal** 1(2): 20-30.
34. Aviral Tiwari, Aruna Dash and Narayanan, Badri G. (2017). *Foreign tourist arrivals in India from major source countries: an empirical analysis* **Current Issues in Tourism**: 1-20.
35. Amanda Countryman and Narayanan, Badri G. (2017). *Price volatility, tariff structure and the special safeguard mechanism* **Economic Modelling** 64: 399-408.

36. Farzad Taheripour, Thomas Hertel, Badri Narayanan, Sebnem Sahin, Anil Markandya and Bijon Kumer Mitra(2016) *Economic and Land Use Impact of Improving Water Use Efficiency in Irrigation in South Asia* **Journal of Environmental Protection: 7(11):1571-91.**
37. Angel Aguiar, Badri Narayanan and Robert McDougall (2016). *An Overview of the GTAP 9 Data Base* **Journal of Global Economic Analysis 1(1): 181-208.**
38. Badri Narayanan (2016). A comment on potential effects of a trans-pacific partnership on forest industries. **Forest Policy and Economics: 73:** 262-3. <https://doi.org/10.1016/j.forpol.2016.09.023>
39. Naveen Kadasala, Badri Narayanan and Yang Liu (2016). *International Trade Regulations on BPA: Global Health and Economic Implications* **Asian Development Policy Review 4(4): 134-42.**
40. Aqli Khan, Muhammad Aamir Khan, Badri Narayanan, Kafiat Ullah and Iftikhar Ul Hasnain (2016). *Globalization and Economic Growth: Evidence from Pakistan* **The Pakistan Journal of Social Issues 7:** 41-51.
41. Narayanan, Badri G., Sachin Kumar Sharma and Mohammad Razzaque (2016). *Trade Facilitation in the Commonwealth: An Economic Analysis* **Margin: The Journal of Applied Economic Research 10(3): 305-336.**
42. Narayanan, Badri G. and Sachin Kumar Sharma (2016). *An Analysis of Tariff Reductions in the Trans-Pacific Partnership: Implications for the Indian Economy* **Margin: The Journal of Applied Economic Research 10(1): 1-34.**
43. Britz, Wolfgang, Perez, Ignacio and G. Badri Narayanan (2015). *Analyzing Results from Large-Scale Agricultural Economic Simulation Model Results: Recent Progress and the Way Ahead*, **German Journal of Agricultural Economics 64(2): 107-119.**
44. Prity Sinha, Brinda Viswanathan and Badri Narayanan (2015). *Financial Market and Growth: Evidence from post-reforms India*, **Cogent Economics and Finance 3(1).**
45. Huang, Cheng-kui, Ting-Yi Chang and G. Badri Narayanan (2015), *Mining the Change of Customer Behavior in Dynamic Markets*, **Information Technology and Management:16(2):117-138.**
46. Steinbuck, Jevgenijs and G. Badri Narayanan. (2015) *Fossil Fuel Producing Economies have Greater Potential for Inter-fuel Substitution*, **Energy Economics 47:** 168-77.
47. Narayanan, Badri G. (2014) *Can Mergers be Useful to Face Trade Liberalisation?: The Role of Technology*, **Journal of Quantitative Economics 12(2).**
48. Narayanan, G Badri and Sangeeta Khorana (2014). *Tariff Escalation, Export Shares and Economy-wide Welfare: A Computable General Equilibrium Approach* **Economic Modelling, 41:** 109-118.
49. Narayanan, Badri G. and Rungta, Vasundhara (2014). *Export Subsidy Reforms and Productivity Improvements: The Case of Indian Textile and Clothing Sector* **Margin: The Journal of Applied Economic Research 8(3): 327-52.**
50. Mirza, Tasneem, Badri Narayanan G and Nico van Leeuwen (2014). *Impact of Chinese Growth and Trade on Labor in Developed Countries*, **Economic Modelling 38:** 522-32.
51. Narayanan, G Badri and Pankaj Vashisht (2013). *Indian Auto Industry: A Global Hub in Making?.* **Review of Development and Change, 18(2)**, June-December.
52. Chandramouli, M, G Badri Narayanan and Gary Bertoline (2013). *A Graphics Design Framework to Visualize Multi-dimensional Economic Datasets*, **Engineering Design Graphics Journal 77(3): 1-14.**
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3. G. Badri Narayanan *forthcoming*. *Potential Macro-economic Impact of the Expansion of Hydroelectric Sector in Central Asia*. In eds Nandakumar Janardhanan and Vaibhav Chaturvedi. *Renewable Energy Transition in Asia: Policies, Markets and Emerging Issues*. Palgrave MacMillan.
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2. Narayanan, G. Badri (2005) *A note on Labour Flexibility debate in India* in **Economic and Political Weekly**, September 26- October 1.

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1. Narayanan, G. Badri (2017) *Economic and Environmental Issues in Indian Textile Industry*, Springer Publishers, USA.
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3. Narayanan, G.Badri, Angel Aguiar and Robert McDougall, Editors. (2012). *Global Trade, Assistance, and Production: The GTAP 8 Data Base*, Center for Global Trade Analysis, Purdue University.
4. Narayanan, G.Badri and Pankaj Vashisht (2011). *Determinants of Competitiveness of Indian Auto Industry*, Lambert Academic Publishing, Germany.
5. Narayanan, G.Badri and Terrie L. Walmsley, Editors (2008). *Global Trade, Assistance, and Production: The GTAP 7 Data Base*, Center for Global Trade Analysis, Purdue University.

Authored/co-authored several chapters in the edited books above

Sponsored Research Projects

Total Funds generated jointly with other colleagues since 2006, from both public and private sector organizations: USD 10 Million (of which over half was generated in a leading as a Principal Investigator (PI) or in my capacity as a consultant)

1. Consultant (2020): IRRI study on agricultural policies in Asia
2. Consultant (2020): World Bank study on decarbonization of South Asian countries
3. PI (2020): African Development Bank study on Covid and ACFTA impact on Central Africa
4. PI (2020): Athena Infonomics study on Covid impact on Indian transportation sector
5. Consultant (2020): CPA study on improving the economic modeling of trade policies
6. Consultant (2020): ECIPE study on 5G economic impact
7. Consultant (2020): ECIPE and IDEAS study on modeling the expansion of Trans Pacific Partnership
8. PI (2020): ODI and PRIBD study on Developing a detailed economic model for Bangladesh
9. PI (2020): UNDP study on modeling sensitive sectors in Arab Customs Union
10. Consultant (2020): UNESCWA studies on trade policy in West Asia
11. PI (2020): Commonwealth Secretariat study on UK's FTA with Commonwealth countries
12. Consultant (2020): Google EU study on Economic Costs of non-AI
13. Consultant (2020): Google EU study on Economic Costs of Ex Ante Regulations
14. Consultant (2020). EXIM Bank India study on trade policies and impact of India's decline on the Commonwealth countries.
15. PI (2020) Organization of Islamic Countries study on global trade policies in the light of Covid.
16. PI (2020) Commonwealth Secretariat study on global medical supplies value chains in the context of Covid
17. PI (2020) Asian Development Bank study on the global economic impact of digital transformation in post-Covid world.
18. PI (2020) Asian Development Bank study on the impact of Covid-19 on migration and remittances.
19. PI (2020) Asian Development Bank study on the global economic impact of Covid-19 through the channels of trade, production, tourism, consumption, investment, stimulus and healthcare costs.
20. PI (2020) World Bank study on the impact of the Covid-19 on African countries
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22. PI (2019-20): Food security, trade policies and the environment, for International Rice Research Institute, Manila
23. PI (2018-19): Trade integration, green economic policies and gender in South Asia, World Bank
24. PI (2019-20): Economic Analysis of Arab Customs Union, United Nations Development Programme (UNDP).
25. PI (2019-20): Trade Policies in West Asian and North African countries for the UNESCWA.

26. PI (2018): Economic Data for Policy Analysis in Central African Countries for the World Bank Group.
27. PI (2018): Trade Policies and Sustainable Development, for the UNESCAP.
28. PI (2018): Trade Policies in Lebanon, for the UNESCWA.
29. PI (2018): Agricultural Economic Policies of India, for the USDA.
30. Co-PI (2018): Economic Impact of Community Forest Management in Mt Adams, Washington State, for Department of Natural Resources, The State Government of Washington, USA.
31. PI (2018): Trade Wars and the US ICT industry, for Rhodium Group, NYC and US Chamber of Commerce, Washington DC.
32. PI (2018): Trade Wars and EU, for ECIPE, Brussels, Belgium.
33. Co-PI (2018): Estimation of Counterfeit Goods Trade and their Economic Impact in the UK, for HMRC, the Government of UK.
34. Co-PI (2018): Effects of BREXIT on beverages industry, for Beverages Industry Association, UK.
35. Consultant (2017-8): Sustainability Impact Assessment for the EU-MERCOSUR Free Trade Agreement, for the DG-Trade, European Commission, Brussels, in collaboration with London School of Economics, London.
36. Consultant (2017-8): Sustainability Impact Assessment for the EU-Mexico Free Trade Agreement, for the DG-Trade, European Commission, Brussels, in collaboration with London School of Economics, London.
37. PI (2018): Anti-dumping of solar cells exported from China to India, for Seetharaman and Associates, New Delhi.
38. PI (2018): Addition of Central African countries to GTAP Data Base, to World Bank, DC.
39. PI (2017): Data-driven Design of Fund-raising Strategies. Harvard University Medical School, MA
40. PI (2017): Input-Output Table and Employment in Kenya, by the World Resources Institute, USA.
41. PI (2017): BREXIT and Free Trade Agreements with Africa, Asia and Oceania, by the Commonwealth Secretariat, London, UK.
42. Co-PI (2017): Potential Impact of Renegotiating NAFTA, for International Institute of Sustainable Development (IISD), Canada.
43. PI (2017): Trade, Environment and Employment, by the World Bank Group, USA.
44. PI (2017): Tobacco Control and Employment in Tanzania: A CGE Approach, by the World Health Organization, Geneva.
45. PI (2017): Mega-lateral Trade Agreements and Sustainable Development, by the UNESCAP, Thailand.
46. PI (2017): Sustainable Development Goals under different trade policy scenarios, by the UNESCAP, Thailand.
47. PI (2017): Trade, Green Jobs and Gender in South Asia, by the World Bank Group, USA.
48. PI (2016-17): Trade, Domestic Support, Distortions and Food Security, by the FAO, Rome.
49. PI (2016): Governance and Trade in the Commonwealth, by the Commonwealth Secretariat, London, UK.
50. Consultant (2016-17): Sustainability Impact Assessment for the EU-Australia-New Zealand Free Trade Agreement, for the DG-Trade, European Commission, Brussels, in collaboration with London School of Economics, London.
51. Consultant (2016-17): Impact of Turkish trade restrictions on Cyprus, for the Cyprus government, in collaboration with London School of Economics, London.
52. Co-PI (2015): Development of a new GTAP-based trade-FDI model and dataset for Canada, by the Department of Foreign Trade and Development, Government of Canada (with Charles Xiao)
53. PI (2015): Productivity and Investment Gaps in Indian Agri-business sectors, by World Bank.

54. Co-PI (2015): Analysis of Economic Impact of Russia's Import Bans, for the Food and Agricultural Organisation, Rome, Italy.
55. PI (2015): Analysis of Economic Impact of Russia's Import Bans on the EU, for the DG-Trade, European Commission, Brussels.
56. Co-PI (2015-16): Several public and private sector projects to analyse economic policies, business strategies and forecasting for McKinsey and Company
57. PI (2016): Development of Global CGE Dataset with new IO tables of selected African countries, by the World Bank
58. Co-PI (2015): Domestic Support in Developing Countries, by the International Agricultural Trade Research Consortium (with Roman Keeney)
59. Co-PI (2015-2016): Growth, Climate Change and the Role of Water in the South Asian Economy: A General Equilibrium Modeling Approach: Phase II, by the World Bank (with Thomas Hertel and Farzad Taheripour)
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61. PI (2015): Study on Global Economic Burden of Non-Communicable Diseases, by Woodrow Wilson Center of International Affairs.
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63. Co-PI (2015): Complex Network Analysis of Trade in the Commonwealth, by the Commonwealth Secretariat, London, UK.
64. PI (2015): Quantifying the Impact of Trade Facilitation on the Commonwealth, by the Commonwealth Secretariat, London, UK.
65. PI (2014): Modelling the Trade Policies of Tobacco Control, by World Health Organisation, Geneva.
66. Co-PI (2014-2015): Growth, Climate Change and the Role of Water in the South Asian Economy: A General Equilibrium Modeling Approach, by the World Bank (with Thomas Hertel and Farzad Taheripour)
67. PI (2013): Review of Agricultural Outlook Models, by National Council for Applied Economic Research (NCAER), New Delhi, India.
68. Co-PI (2011-2013): Quantitative Analysis of Vulnerability Reduction and Diversification in Africa, by the World Bank (with Terrie Walmsley, Angel Aguiar, Robert McDougall and Peter Minor)
69. Co-PI (2013-2014): Employment Growth in Indian Manufacturing: An Evaluation, by the Umea School of Business and Economics Research Institute (with Chandra Kiran Krishnamurthy)
70. PI (2014): Long-run Implications of Pluri-lateral Trade Negotiations on India, by Department For International Development (DFID), UK and International Institute of Sustainable Development (IISD), Canada.
71. PI (2014): Choice of a dynamic model to analyse the long-run Implications of Pluri-lateral Trade Negotiations, by Department For International Development (DFID), UK and International Institute of Sustainable Development (IISD), Canada.
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73. PI (2012-13): Analysis of Economic and Environmental Impact of Sustainable Energy Trade Agreement, by International Center for Sustainable Trade and Development (ICTSD), Geneva.
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76. PI (2009-10): Trade and Environmental Regulations in Indian textile Industry, by Madras School of Economics (MSE), Chennai, India and Ministry of Environment and Forests, New Delhi, India.
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Urgently Needed: A COVID-like response to fight climate change Moneycontrol.com May 2020.

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1. Estimating the Economic Impact of Covid-19: A Supply Side Analysis, 23rd Annual Conference on Global Economic Analysis, Online, June 2020, co-authored and co-presented with James Villafuerte.
2. Modelling the Potential Long term Impact of BREXIT on Wales. 23rd Annual Conference on Global Economic Analysis, Online, June 2020, co-authored and co-presented with Sangeeta Khorana.
3. The Long term Impact of Trade Wars and Make in India. Wales. 23rd Annual Conference on Global Economic Analysis, Online, June 2020, co-authored with Sangeeta Khorana, Rahul Sen (Presenter), Chidambaran Iyer and Sadhana Srivastava.
4. Keynote Address on *Economic Impact of Covid, Digital Transformation and Skilling.* International Web Conference organized by IEEE, ACM and CSI on Reskilling and Skill Development, May 2020.

5. Keynote Address on *Digital Transformation of Education Sector*. International Web Conference on Disruptive Technologies for Rural Education. June 25, 2020.
6. Keynote Address on *Computational Systems for Healthcare and Sustainability*. International Web Conference on Disruptive Technologies for Healthcare and Sustainable Development. June 5, 2020.
7. Keynote Address on *Digital Transformation and Sustainability A Post-Covid Analysis of Global Businesses*. International Web Conference on Digital Transformation and Sustainability in Post-Covid Era. May 15, 2020.
8. Keynote Address on *Global Food Security: Policies, Challenges and the Need for Interdisciplinary Approach*. at the Annual Conference of the Indian Association for Social Science Institutions, Hyderabad, India. January 2019.
9. Top-Down and Bottom-up Approaches to Climate Change Adoption in Bulgaria, 22nd Annual Conference on Global Economic Analysis, Warsaw, Poland, June 2019, co-authored with Sebnem Sahin (presenter) and Svetlana Aleksandrova.
10. New global estimates of bilateral AVEs of NTMs: Application to NTM Harmonization in Asia-Pacific, 22nd Annual Conference on Global Economic Analysis, Warsaw, Poland, June 2019, co-authored with Alexey Kravchenko (Presenter), Chorthip Utoktham and Yann Duval.
11. *The Impact of Blockchain on Trade and Sustainable Development*, World Trade Forum, Florence Italy, September 2018, coauthored with Hanna Norberg and Christine McDaniel (Presenter).
12. *Blockchain Applications in Industry and Government*, Blockchain Expo, University of Washington Seattle WA, October 2018.
13. *Blockchain Use Cases for Policy and Business*, Blockchain Summit, Seattle USA, September 2018 (recognized by the organizers as a Blockchain Thought Leader).
14. *The Best Blockchain Use Cases for The Next Decade*, Blockchain Economic Forum, San Francisco USA, June 2018.
15. *The General Equilibrium Effects of Environmental Regulations in the Electricity Generation*, 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia, June 2018, co-authored with Katherine Antonio.
16. *Value transportation's air-quality co-benefits from climate mitigation*, 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia, June 2018, co-authored with Katherine Antonio (Presenter), Yongxia Cai, and Robert Beach.
17. *Key Note Address on Contemporary Issues in Social Sciences* in International Conference on Contemporary Issues in Social Sciences held at Hansraj Mahila Maha Vidyalaya College, Jalandhar, Punjab India in February 2018, with extensive press coverage.
18. *Water Resources in South Asia: An Assessment of Climate Related Vulnerabilities*, 20th Annual Conference on Global Economic Analysis, Purdue University, USA, June 2017, co-authored with Sahin, Sebnem, Alexander Golub (presenter), Elena Golub, Bijon Kumer Mitra, Anil Markandya and Farzad Taheripour.
19. *The Implications of Chinese Pattern of Growth for the Rest of the World*, 20th Annual Conference on Global Economic Analysis, Purdue University, USA, June 2017, co-authored with Tokarick, Stephen (IMF) (presenter).
20. *Potential Global Economic Impact of OPEC's Oil Production Freeze*, 20th Annual Conference on Global Economic Analysis, Purdue University, USA, June 2017, co-authored with Wadhwa, Deepika (Presenter), Zekarias Hussein and Muhammad Aamir Khan.
21. *Trade Policy, Farm Income Security and Global Food Security: A Quantitative Assessment*, 20th Annual Conference on Global Economic Analysis, Purdue University, USA, June 2017, co-authored with Jean Balie.
22. *Trade, Child Labor and Credit Constraint: A CGE Approach*, American Economic Association Meetings, Chicago, January 2017, co-authored with Meenakshi Rishi and Terrie Walmsley.
23. *Mega-lateral Trade Agreements and Sustainability*, Symposium on Trade and Sustainable Development, UNESCAP, Thailand, December 2017.

24. *Productivity Spillovers from Foreign Direct Investment and Absorptive Capacity: An analysis in a Heterogeneous firm CGE model*, 20th Annual Conference on Global Economic Analysis, Purdue University, USA, June 2017, co-authored with Gouranga Das (Presenter) and Zeynep Akgul.
25. *Analyzing the Trade Effects of the Transatlantic Trade and Investment Partnership between the EU and the US: Do we need to care about agricultural domestic support*, 19th Annual Conference on Global Economic Analysis, World Bank, Washington DC, USA, June 2016, co-authored with Kirsten Urban (Presenter), Ole Boysen, Martina Brockmeier, Tanja Engelbert, Hans Jensen.
26. *Recent Developments in Global CGE Models*, 4th GIFTA Conference, University of Bath, Bath, UK, January 2016.
27. *International Trade and Public Health: Implications for Developing Countries*, 19th Annual Conference on Global Economic Analysis, World Bank, Washington DC, USA, June 2016, co-authored with Sangeeta Khorana (Presenter).
28. *Are Investments in Agricultural Infrastructure Really Boosting Farmers' Market Access in Sub Saharan Africa?*, 19th Annual Conference on Global Economic Analysis, World Bank, Washington DC, USA, June 2016, co-authored with Jean Balie (Presenter), Signe Nelgen and Anna Strutt.
29. *Land Use and Impacts of Improving Water Use Efficiency in South Asia*, 19th Annual Conference on Global Economic Analysis, World Bank, Washington DC, USA, June 2016, co-authored with Farzad Taheripour (Presenter), Tom Hertel and Sebnem Sahin.
30. *Co-existence of Good Economic Policy and Tobacco Control*, Invited Seminar at Institute of Diseases Modeling, Intellectual Ventures, Bellevue, WA.
31. *An Overview of GTAP Data Base*, 23rd IIOA (International Input Output Association) Conference, Mexico City, June 2015, coauthored with Robert McDougall and Angel Aguiar.
32. *Impact of India's Food Security Policy across Household Types* 18th Annual Conference on Global Economic Analysis, Melbourne, Australia, June 2015, co-authored with Dileep Birur (Presenter) and Angel Aguiar.
33. *Reconciling the GTAP Data Base: Where are the Big Changes?* 18th Annual Conference on Global Economic Analysis, Melbourne, Australia, June 2015, co-authored with Terrie Walmsley (Presenter), Angel Aguiar and Robert McDougall.
34. *Water Scarcity in South Asia: A Dynamic Computable General Equilibrium Analysis* 18th Annual Conference on Global Economic Analysis, Melbourne, Australia, June 2015, and 2015 AAEA Meetings at San Francisco, July 2015, co-authored with Farzad Taheripour, Thomas Hertel, Sebnem Sahin and Jorge Escurra.
35. *Agricultural production, irrigation, climate change, and water scarcity in India* 18th Annual Conference on Global Economic Analysis, Melbourne, Australia, June 2015, and 2015 AAEA Meetings at San Francisco, July 2015, co-authored with Farzad Taheripour (Presenter), Thomas Hertel, Sebnem Sahin and Jorge Escurra.
36. *East Asia tariff concession: A CGE analysis* 18th Annual Conference on Global Economic Analysis, Melbourne, Australia, June 2015, and 2015 AAEA Meetings at San Francisco, July 2015, co-authored with Ken Kawasaki (Presenter), Houssein Guimbard and Arata Kuno.
37. *Agricultural Policy Reforms in Sub Saharan Africa: A CGE Analysis* 18th Annual Conference on Global Economic Analysis, Melbourne, Australia, June 2015, co-authored with Jean Balie.
38. *The Impact of International Crises on Maritime Transportation Based Global Value Chains*, 94th **Annual Conference of Transportation Research Board**, Washington DC, Co-authored with Mesa Arango, Rodrigo and Satish Ukkusuri (Presenter), January 2015.
39. *The economic impact of the Russian import ban* 18th Annual Conference on Global Economic Analysis, Melbourne, Australia, June 2015, and 2015 AAEA Meetings at San Francisco, July 2015, co-authored with Zornitsa KutlinaDmitrova.
40. **Invited Plenary Talk** on *International Trade Policies and Sustainability of Nano-Textiles*, 2nd International Conference on Industrial and Technical Textiles, presented remotely by video-conferencing, PSG College of Technology, Coimbatore, India, August 2014.

41. *Compound Tariffs in EU Agriculture: A Linked Partial and General Equilibrium Analysis* 17th Annual Conference on Global Economic Analysis⁶, Dakar, Senegal, June 2014, co-authored and presented with Janine Pelikan.
42. *Construction of ITC MacMAP Tariff dataset* 17th Annual Conference on Global Economic Analysis, Dakar, Senegal, June 2014, co-authored with Xavier Pichot (presenter), Mondher Mimouni and Janine Pelikan.
43. *Utilization of Preferential Tariffs* 17th Annual Conference on Global Economic Analysis, Dakar, Senegal, June 2014, co-authored with Xavier Pichot and Mondher Mimouni (presenter).
44. *Global Land Use Change and Greenhouse Gas Emissions due to Recent European Biofuel Policies*, 17th Annual Conference on Global Economic Analysis, Dakar, Senegal, June 2014, Co-authored with Neus Escobar (presenter) and Wally Tyner.
45. *Exploring the energy-water-food-climate nexus for the Indian Economy in 2030*, **2014 Meeting of the American Geophysical Union**, Co-authored with Farzad Taheripour (Presenter) and Tom Hertel, San Francisco, CA, December 2014.
46. *Corporate Governance, Audit and Firm Performance*, **2014 Conference of the Indian Journal of Economics and Business**, Denver, CO, co-authored with Amlan Mitra, December 2014.
47. *Conventions and Standards in GTAP Framework: An Overview*. A Presentation at the GEOSHARE and Agricultural Model Improvement Workshop held at Purdue University, September 2014.
48. *Application of dynamically calculated total requirements coefficients to CGE simulation analysis*, 22nd IIOA (International Input Output Association) Conference, Lisbon, Portugal, July 2014, coauthored with Robert McDougall (presenter).
49. *Can India connect with Asian International Production Networks through RTAs?*, The 55th Annual Conference of the New Zealand Association of Economists, July 2014, and Fourth IIFT Conference on Empirical Issues in International Trade, December 2014, coauthored with Rahul Sen (presenter) and Sadhana Srivastava.
50. *Price Volatility Effects of the Special Safeguard Mechanism in the Presence of Specific Tariffs* 17th Annual Conference on Global Economic Analysis, Dakar, Senegal, June 2014, co-authored with Amanda Leister (presenter).
51. *Can Reciprocal Tariff Elimination Reduce the Welfare Losses due to Labor Productivity?: An Analysis of Reciprocal Preferential Trade Access between Sub-Saharan Africa and Industrialized Countries* 17th Annual Conference on Global Economic Analysis, Dakar, Senegal, June 2014, co-authored with Manitra Rakotoarisoa (presenter) and Sangeeta Khorana.
52. *Free Trade Agreements, Rules of Origin and Re-exports: The Case of the UAE* 17th Annual Conference on Global Economic Analysis, Dakar, Senegal, June 2014, co-authored with Ashraf Mahate (presenter).
53. *GTAP Data Base: Progress and Future Directions*, the Annual meeting of Consortium Board Members of GTAP, Dakar, Senegal, June 2014.
54. *Trade and Protection Datasets*, the Annual meeting of Consortium Board Members of GTAP, Dakar, Senegal, June 2014.
55. *A GTAP Model Extension for Specific Tariffs* at 16th Annual Conference on Global Economic Analysis, held at Shanghai, China, June 2013, co-authored and presented with Nelson Villoria.
56. Gave a Presentation on *GTAP Data Base Releases 8 and 9* in the Annual Meeting of Consortium Board Members of GTAP, Shanghai, June 2013.
57. Gave a Presentation on *Review of GTAP 8 Data Base and Overview of Data Goal* in the Annual Meeting of Consortium Board Members of GTAP, Geneva, June 2012.
58. **Plenary Presentation** on *Overview of GTAP 8 Data Base* at 15th Annual Conference on Global Economic Analysis, held at WTO, Geneva, Switzerland, June 2012.

⁶ ISSN: 2160-2115(online)

59. *A GTAP-E Extension for Emission Abatement Analysis* at 15th Annual Conference on Global Economic Analysis, held at WTO, Geneva, Switzerland, June 2012, co-authored and presented with Robert McDougall.
60. *Post-model Analysis in large-scale models: the examples of Aglink-Cosimo, CAPRI and GTAP* at 15th Annual Conference on Global Economic Analysis, held at WTO, Geneva, Switzerland, June 2012, co-authored with and presented by Wolfgang Britz and Ignacio Perez.
61. *Integrating India into Global Production Networks Through RTAs* at 15th Annual Conference on Global Economic Analysis, held at WTO, Geneva, Switzerland, June 2012, co-authored with and presented by Rahul Sen.
62. **Invited Plenary Talk** on *Global Economic Analysis of Technical and Industrial Textiles* at the First International Conference on Industrial and Technical Textiles held at PSG College of Technology, Coimbatore India, August 2012.
63. Gave Presentation on *GTAP Data Base: Development and Future Directions* in the Annual Meeting of Consortium Board Members of GTAP, Venice, July 2011.
64. *The Proposed EU-India FTA: Implications for Textiles, Wearing Apparel and Leather Products* Presented at the 14th Annual Conference on Global Economic Analysis, Venice, Italy, 2011, co-authored with and presented by Sangeeta Khorana.
65. *The Role of Labor Standards in International Trade: A CGE Approach* Presented at the 14th Annual Conference on Global Economic Analysis, Venice, Italy, June 2011; at Indira Gandhi Institute of Development Research, Mumbai, India, June 2011 and Madras Institute of Development Studies, Chennai, India, July 2012, co-authored with Terrie L. Walmsley.
66. *Does Tariff Escalation affect Export Shares?: The Case of Global Cotton and Coffee Sectors* Presented at AAEA Meetings at Pittsburgh, PA and a revised version at IATRC Meetings at St. Petersburg, FL, 2011, co-authored with Sangeeta Khorana.
67. *International Inter-Fuel Substitution: Do Factor Endowments Matter?* Presented at 4th EMEE (Empirical Methods in Energy Economics) Seminar in Dallas, Texas, 2011, co-authored with and presented by Jevgenijs Steinbuks.
68. *Incorporating Domestic Support into GTAP 7 Data Base and Overview of GTAP 7 Data Base.* Presentations at 12th Annual Conference of Global Economic Analysis, Santiago, Chile, June 2009.
69. Gave Presentations on *Review of GTAP 7 Data Base and Overview of Data Goal* and *GTAP Africa Data Base* in the Annual Meeting of Consortium Board Members of GTAP, Helsinki, June 9-10, 2008.
70. Co-Authors: Hertel, TW. and Horridge, JM. *A Nested PE/GE Model for GTAP: Simulating the Disaggregated Impacts of Tariff-Liberalization on Automotive Industry in India.* Paper presented at the 11th Annual Conference of Global Economic Analysis, Helsinki, Finland, June 12-14, 2008.
71. *Inflation-Openness Relationship in Developing Countries: A Dynamic Panel Approach* in *Sixth Annual Conference on Money and Finance* at IGIDR, Mumbai (March 2004).

Invited Presentations, Seminars and National Conferences

1. **Interviews and Podcasts (two) on** Disruptive Technologies in the Global Economy by Risk Experience Podcast (June 2020).
2. **Interview/Podcast** on US-China Trade Tensions for VoiceAmerica Radio (May 2020).
3. **Interviews** on startups in the new normal, with DigiAgri and Valeaou.com (May 2020).
4. **Online Seminars, Interviews and Panel Discussions** on Covid Economic Impact and Digital Transformation, for several organizations including USITC, Sapient Technologies, Smartkarma, Risk Group LLC, KASB Securities, Alliance Law Group, NECF, VoiceAmerica Radio, Infeon, TATTI, BABC, PSG Institute, etc. (May-June 2020)
5. **Online Seminar** on *The Potential Impact of Ongoing Crisis and Trade Policy Changes on Indian Economy* for Amity University School of Business, Lucknow.

6. **Research Seminar** on *Economic and Health Co-benefits of Alternative Fuel Technologies* at Lawrence Berkeley National Laboratory, UC Berkeley, coauthored with Yongxia Cai, Katherine Antonio and Robert Beach. Nov 2019.
7. **Seminars** on *Global Food Security* at CESS and ICRISAT Hyderabad, January 2019.
8. **Seminars** on *Artificial Intelligence and Machine Learning for Public Policy* at IMT Ghaziabad, MDI Gurgaon and ICFAI, Hyderabad, January 2019.
9. **Seminars** on *Trade Wars and Indian Economy* at ICWA Delhi, ISID Delhi, SNR Coimbatore, Kongu Engineering College Erode, PSGRK Coimbatore, January 2019.
10. **Seminar** on *Blockchain for Business and Policy* at PSG College of Arts and Science, Coimbatore, January 2019.
11. **Seminar** on *Computable General Equilibrium Modeling* University of Hyderabad, January 2019.
12. **Seminar** on *Potential Impact of Increased Fruit and Vegetables Consumption in North America* at Liu Institute for Global Issues, University of British Columbia, Vancouver, Canada, April 25, 2018.
13. **Seminar** on *Paris Agreement and the Global Economy* at Massachusetts Institute of Technology (MIT) Joint Program for Science and Policy of Global Change. April 20, 2018, TERI New Delhi, January 2019 and KAPSARC Riyadh Saudi Arabia, February 2019.
14. **Seminar** on *Modeling Food Trade Policies* at Friedman School of Food Science and Policy, April 18, 2018.
15. **Seminars** on *Potential Global Economic Impact of OPEC's Oil Production Freeze* at National Institute of Advanced Studies, Indian Institute of Science, Bangalore, India, July 3, 2017 and TERI University, New Delhi, July 27, 2017.
16. **Seminars** on *Inter-Disciplinary Analysis for Business and Policy* at PSG College of Technology, Coimbatore, India, July 10, 2017, National Institute of Technology, Tiruchirapalli, India on August 1, 2017, St Joseph's College Trichy, February 2018, Jaipuria institute of Management, Noida, January 2019 and University of Business and Technology, Jeddah Saudi Arabia, February 2019.
17. **Seminar** on *Role of Engineers in Policy* at PSG College of Technology, Coimbatore, India, July 10, 2017.
18. **Guest Lectures** on *Current International Trade Issues* at PSG College of Arts and Sciences, Coimbatore, India, July 11, 2017, Kongu Engineering College, Perundurai, India on July 19, 2017 and Vellalars College on July 19, 2017..
19. **Seminar** on *Trade Policy and Global Food Security* at ICRIER, New Delhi, India, July 28, 2017.
20. **Seminar** on *Productivity in Unorganized Sector in a Developing Economy: Evidence from Textile Sector in India* at Department of Economics, University of Washington Seattle, October 6, 2016.
21. **Invited Workshop Panel Discussion** on *Modelling the Future of Indian Energy and Environmental Policies* at the World Resources Institute-KPMG Workshop on Energy Modeling for India, May 12, 2016.
22. **Invited Workshop Presentation** on *GTAP Domestic Support Dataset for the European Union Members* at the Institute for Prospective Technologies and Standards, European Union - Joint Research Centre, June 2, 2015.
23. **Invited Workshop Presentation** on *Trade Policies and Non-Communicable Diseases* at the Harvard School of Public Health, Boston, MA, March 28-29, 2015.
24. **Invited Workshop Presentation** on *Trade Policy Modeling of Tobacco Control* at the World Health Organization, Geneva, November 7, 2014.
25. *Inter-disciplinary Approaches to Regional Economic Development, Friday University Workshop*, Purdue University Calumet, Hammond Indiana, October 2014.
26. **Seminar by Video-Conferencing** on *Inter-disciplinary Modelling for Policies and Strategies* at Indian Institute of Management Kashipur and Amrita School of Business, India, September 2014, and at Monmouth College, Illinois, March 2014..

27. **Presentation** on *Low Water High Growth in South Asian Economies* at World bank, Washington D.C. (Copresenter: Farzad Taheripour, co-authored with Thomas Hertel), July 2014.
28. **Invited Seminar** on *Impact of China's Growth and Trade on Labor in Developed Countries*, held at Eastern Illinois University, March 2014 and at Amrita School of Business, Coimbatore in May 2014.
29. **Invited Seminar** on *Inter-fuel Substitution: The Role of Fossil Fuel Production Potential*, held at Center for Environmental and Resources Economics, Umea, Sweden, October 2013.
30. **Invited Seminar** on *Introduction to GTAP: A Computable General Equilibrium Model* in the World Bank Workshop on Diagnostic Tools and Instruments for Assessing Environmental Challenges, held at Madras School of Economics, India, December 2012.
31. **Invited Lecture** on *Introduction to Computable General Equilibrium Modelling* to the MBA students at Indian Institute of Management, Tiruchirapalli, India, December 2012.
32. **Invited Guest Lecture** on *textitEconomic Research on Indian Textile Industry* at Sardar Vallabhbhai Patel Institute of Textile Management, Coimbatore, India, July 2012.
33. **Invited Presentation** on *Impact of Pollution Abatement on the Trade Competitiveness of Indian Textile Sector* at Madras School of Economics, Chennai, July 2012.
34. **Invited Inaugural Guest Lecture** on *International Inter-fuel Substitution Elasticities* at Solar Energy Society of India, PSG College of Technology, India, July 2012.
35. **Invited Guest Lecture** as a part of the *Network and Complex Systems Talk Series* on *The Global Trade Analysis Project* at the Cyberinfrastructure for Network Science Center, Indiana University Bloomington, USA, on December 6 2010
36. **Invited Seminar** on *International Trade and Pollution Abatement Costs in Indian Textile Sector* at Madras School of Economics, Chennai, on November 12, 2010 and at South Indian Textile Research Association on November 20, 2010.
37. **Invited Seminar** on *Impacts of Tariff Liberalization of Indian Auto Industry: Application of a CGE model on disaggregated sectors* at Madras Institute of Development Studies, Chennai on November 12, 2010
38. Co-Authors: Hertel, TW. and Horridge, JM. *Linking Partial and General Equilibrium Models: Impact of Tariff Liberalization on Automotive Industry in India*. A Seminar delivered at IGIDR, Mumbai, on August 19, 2008 and at Madras School of Economics, Chennai on September 18, 2009.
39. Invited to deliver a lecture on *Indian Textile, Apparel and Automotive industries: Some Recent Trends and Economic Issues* in a Workshop on 'BRIC Economies' at Kobe University, Japan on December 13, 2008
40. Lectures on *CGE Modelling: An Introduction* as a part of the UNCTAD Capacity Building Program in Allahabad University, Allahabad, India, August 22, 2008.
41. Contributed a paper on *Will Phasing out of MFA Quotas Benefit India's Garment Exports?* at 43rd Annual Conference of *The Indian Econometric Society* held in IIT-Mumbai on 5th January 2007
42. *Some Economic Issues in Indian Textile Sector* at *Center for Global Trade Analysis, Purdue University, USA* on February 12, 2007.
43. *Competitiveness of Indian Auto Industry: Some Findings* at *National Manufacturing Competitiveness Council, New Delhi* on January 20, 2007 and at *Indian Council for Research on International Economic Relations, New Delhi* on January 4, 2007.
44. *India's Handloom Exports: Recent Trends and Perspectives for Future* in a seminar on 'Export Competitiveness of Textiles- Focus Handloom' organised by PHD Chamber of Commerce and Industry and Textiles Committee, and sponsored by UNCTAD, held at Panipat on August 31st, 2006.
45. *Determinants of Employment in India's Organised Textile Sector* at *Indian School of Business* on May 31, 2006.
46. *Some Economic Issues in Indian Textile Sector* at *National Council of Applied Economic Research* on June 15, 2006.

47. Presented a part of a project entitled *Global Welfare Implications of Non-ratification of Kyoto Protocol by USA: A Multi-region Multi-sector CGE Analysis* in 'A short Course on Global Trade Analysis' Organised by Purdue University at IGIDR, Mumbai from 18-24 February, 2006.
 48. Delivered a lecture on "Analysis of NSS data using suitable statistical tool" in a two day workshop on "Data, Databases and Data Inter-conversion", organised by Indian Council for Social Science Research (ICSSR) - Western Regional Center, in Mumbai University, on Feb 3-4, 2006.
 49. Delivered a lecture on "Analysis Using NSS Data", to the students of I year MSc/MPhil/PhD students in IGIDR (January 2006)
 50. Presented the "Second Draft of the State of Environment Report: Maharashtra" in a workshop on 'State of Environment Report: Maharashtra' at Maharashtra Pollution Control Board (MPCB), representing IGIDR in July 2005.
 51. *Exports, Exchange Rate and Productivity: A Cointegration Analysis of Indian Textile Sector* in the 41st Annual Conference of The Indian Econometric Society at Jadavpur University, Kolkata (January 2005).
 52. *Determinants of Employment in Indian Textile Industry* in the 40th Annual Conference of The Indian Econometric Society at Institute of Social and Economic Change (ISEC), Bangalore (February 2004).
 53. *Analysis of Long-run Environmental Impacts and Prioritisation of the Natural Dyes in the Textile Industry* in National Conference on Advances in Environmental Science and Engineering, Indian Institute of Technology (IIT), Mumbai (December 2003).
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Other Activities Pertaining to Teaching/Research

- Editorial Board Member for the Journal of Quantitative Finance and Economics (as the Editor-in-Chief), ASERC Journal of Socio-Economic Studies, Socio Economic Challenges, Finance and Market, Empirical Economic Review, Universal Journal of Industrial and Business Management and EPRA International Journal of Economics, Business and Management Studies
- Refereed for International Journals: *Applied Economics, Economic Modelling, Economic Systems, Economic Systems Research, The Energy Journal, International Economic Journal, Journal of Economic Integration, Journal of Economic Studies, Journal of Public Affairs, Journal of Environmental Informatics, Journal of Quantitative Economics, Journal of Development and Agricultural Economics, Journal of South Asian Development, African Journal of Business Management, Journal of the Asia Pacific Economy, Scientia Agriculturae Bohemica* and *Textile Research Journal*.
- Refereed research papers submitted for various conferences including the Annual Conferences on Global Economic Analysis, Purdue University; reviewed various research proposals/reports of World Bank, Government of India, USA and those submitted to industry associations.
- Reviewer for a policy document by NITI (National Institution for Transforming India) Aayog on Indian Power Sector in 2015 and Reserve Bank of India in 2016.
- Participated in the First and Second Meetings of Steering Committee on Industry for the Eleventh Five Year Plan, held at Planning Commission, Government of India in August to December, 2006.
- Organised and Chaired several Conference Sessions.
- Participated in a workshop on "Trans-Pacific Partnership and its Implications for Brazil and India" held at the Center for Global Development, Washington DC, June 2014.
- Participated in a workshop on "Trans-Pacific Partnership and its Implications for India" held at the Oberoi Hotel, New Delhi, August 2014.
- Participated in several other workshops and helped organise various conferences such as three Annual Conferences on Money and Finance in Indian Economy at IGIDR, from 2002 to 2006.

Languages Known : Tamil (Native), English (Near Native) and Hindi (Near Native)