

# DIGVIJAY SINGH NEGI

## IGIDR

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## EDUCATION

Ph.D. Quantitative Economics, Economics and Planning Unit, *Indian Statistical Institute*, New Delhi, 2013-2018

Master of Economics (MA), *Delhi School of Economics, University of Delhi*, 2007-2009

Bachelor of Arts with Honors (BA(Hons)) Economics, *University of Delhi*, 2003-2006

## ACADEMIC AND RESEARCH APPOINTMENTS

Assistant Professor, Indira Gandhi Institute of Development Research (IGIDR), Mumbai, Maharashtra, July 2019-present

Postdoctoral Fellow, Center for Development Economics, Delhi School of Economics, University of Delhi, February-June 2019

Research Associate, ICAR National Institute of Agriculture Economics and Policy Research, New Delhi, 2010-2013

## TEACHING AND RESEARCH FIELDS

### Primary fields

*Agricultural Economics, International Trade, Risk and Insurance, Development Economics*

### Secondary fields

*Health and Nutrition, Environmental Economics*

## TEACHING EXPERIENCE

*Computer Programming and Applications*, Indian Statistical Institute

*Statistics*, Indian Statistical Institute

*Development Economics*, Indian Statistical Services (ISS) Probationers Training Program, Indian Statistical Institute

## PUBLICATIONS

### Published Papers in Refereed Journals

- [Farmers' Choice of Market Channels and Producer Prices in India: Role of Transportation and Communication Networks](#) with Pratap S. BIRTHAL, Devesh Roy and Md. Tajuddin Khan, *Food Policy*, 2018.
- [Is Indian Agriculture Becoming Resilient to Droughts? Evidence from Rice Production Systems](#) with Pratap S. BIRTHAL, Md. Tajuddin Khan and Shaily Agarwal, *Food Policy*, 2015.
- [Farmers' Preference for Farming: Evidence from a Nationally Representative Farm Survey in India](#) with Pratap S. BIRTHAL, Devesh Roy and Md. Tajuddin Khan, *The Developing Economies*, 2015.
- [Assessing the Impact of Crop Diversification on Farm Poverty in India](#) with Pratap S. BIRTHAL and Devesh Roy, *World Development*, 2015.
- [The Impacts of Information on Returns from Farming: Evidence from a Nationally Representative Farm Survey in India](#) with Pratap S. BIRTHAL, Shiv Kumar and Devesh Roy, *Agricultural Economics*, 2015.
- [Income Sources of Farm Households in India: Determinants, Distributional Consequences and Policy Implications](#) with Pratap S. BIRTHAL, Awadesh K. Jha and Dhiraj Singh, *Agricultural Economics Research Review*, 2014.
- [How Sensitive is Indian Agriculture to Climate Change?](#) with Pratap S. BIRTHAL, Shiv Kumar, Shaily Aggarwal, A. Suresh and Md. Tajuddin Khan, *Indian Journal of Agriculture Economics*, 2014.
- [Impact of Climate Change on Yields of Major Food Crops in India: Implications for Food Security](#) with Pratap S. BIRTHAL, Md. Tajuddin Khan and Shaily Agarwal, *Agricultural Economics Research Review*, 2014.
- [Livestock for Higher, Sustainable and Inclusive Agricultural Growth](#) with Pratap S. BIRTHAL, *Economic and Political Weekly*, 2012.
- [Prevailing Standards and Dimensions Governing Sanitary and Phyto-Sanitary Compliance in Indian Black Pepper Supply Chain](#) with Aarathi, L. R., Shiv Kumar and Dharam Raj Singh, *Agricultural Economics Research Review*, 2012.

### Discussion Papers

- Enhancing Farmers Income: Who to Target and How?* with Pratap S. BIRTHAL and Devesh Roy, Policy Paper 30, National Institute of Agricultural Economics and Policy Research, 2015.
- Agricultural Diversification and Poverty in India* with Pratap S. BIRTHAL and Devesh Roy, Discussion Paper 01446, International Food Policy Research Institute, Washington DC, 2015.
- Changing Sources of Growth in Indian Agriculture* with Pratap S. BIRTHAL, Pramod K. Joshi and Shaily Agarwal, Discussion Paper 01325, International Food Policy Research Institute, Washington DC, 2014.
- Market Integration and Price Transmission in India* with S. S. Acharya, Ramesh Chand, Pratap S. BIRTHAL and Shiv Kumar. Food and Agriculture Organization, 2012.

## RESEARCH PAPERS

*International Risk Sharing for Food Staples* with Prof. Bharat Ramaswami

It is claimed that world food supplies are more stable than the domestic supplies, and therefore free trade should achieve a higher degree of stability in prices and consumption than autarkic policies. The risk sharing implicit in such an argument, has, however never been formally examined. In this paper we study the patterns of risk sharing in the global markets of rice, wheat and maize and quantify the contribution of trade and stocks towards risk sharing. We adopt the predictions of efficient risk sharing

hypothesis as a benchmark and generalize the canonical single composite good model. While the data rejects the efficient risk sharing hypothesis, the wheat market is closest to the efficient risk sharing allocation. Trade is more important than storage in smoothing domestic production shocks. Further we find that the degree of risk sharing is positively associated with income levels of the countries.

*Basis Risk in Index Insurance: Lower Tail Dependence and the Demand for Weather Insurance* with Prof. Bharat Ramaswami

For a variety of reasons, agricultural insurance programs use losses against an index (rainfall, area yield) rather than losses against individual yields to make payouts. While this facilitates the supply of insurance, the resulting basis risk reduces the value of insurance and therefore reduces demand for it. Using district crop yields and rainfall data for India, we find that the association between crop yields and rainfall index is characterized by the statistical property of 'tail-dependence'. This implies that the associations between yield losses and index losses are stronger for large deviations than for small deviations. Or, basis risk is least for large deviations of the index. Using simulation we show that value to a risk averse farmer of index-based insurance relative to actuarial cost is highest for insurance against extreme or catastrophic losses (of the index) than for insurance against all losses.

*The Welfare Impacts of High Food Prices: Resource Endowments and Spill-Over Effects*

This paper studies the impact of high food prices on household welfare in India. We exploit the variation in natural endowments that define a region's suitability for food cultivation as the source of exogenous variation to identify causal welfare effect of high food prices. Our results show that the welfare effects of high food prices vary spatially with the natural suitability of food cultivation such that regions highly suitable for food cultivation experience lower welfare losses from high food prices. The welfare enhancing income effects of high food prices are also found for laborer households and households specializing in non agricultural activities indicating that the spill-over effects of high food prices are important.

### **Other Ongoing Projects**

*Irrigation, Green Revolution and Child Mortality in India:* as part of International Food Policy Research Institute's (IFPRI), ARENA Project.

*An Experimental Study of Food Subsidy Options:* This is a collaborative project between Monash University, Australia and Indian Statistical Institute (ISI) New Delhi. The aim of this project is to understand how households respond to cash incentives in relation to food subsidies provided by the government.

## **CONFERENCE PRESENTATIONS**

2019 International Food Policy Research Institute, Advancing Research on Nutrition and Agriculture (ARENA) Year 2 Workshop, Washington D.C.

2018 North East Universities Development Consortium Conference (NEUDC), Cornell University, Ithaca, New York.

2018 Agricultural and Applied Economic Association (AAEA) Annual Meeting, Washington, D. C., August 5-7.

30<sup>th</sup> International Conference of Agricultural Economists (ICAE), Vancouver, July 28 - August 2, 2018.

6<sup>th</sup> IIFT Conference on Empirical Issues in International Trade & Finance, December 2018, New Delhi.

12<sup>th</sup>, 13<sup>th</sup> and 14<sup>th</sup> Annual Conference on Economic Growth and Development, Indian Statistical Institute, New Delhi, India.

2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> Centre for Research on the Economics of Climate, Food, Energy and Environment (CECFEE) workshops.

2016 Indira Gandhi Institute of Development Research (IGIDR) Ph.D. Colloquium, Mumbai, India, November 8 - 11.

2016 Australasian Development Economics Workshop (ADEW), Deakin University, Melbourne, Australia, June 9 - 10.

## PROFESSIONAL ACTIVITIES

### **Referee**

*American Journal of Agricultural Economics, Agricultural Economics Research Review, Environment and Development Economics*

### **Membership**

*Agricultural and Applied Economic Association (AAEA), International Association of Agricultural Economics (IAAE), Centre for Research on the Economics of Climate, Food, Energy and Environment (CECFEE)*

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