

## C.S.C. SEKHAR

Professor, Institute of Economic Growth  
Honorary Director, Agricultural Economic Research Centre  
University of Delhi, Delhi -110007

Ph: 91-11- 2766 7101 or 2766 7424 (O)

91-11-2766 2287 (Home), 98107 24231 (Mobile)

e-mail : [sekharcsc@yahoo.com](mailto:sekharcsc@yahoo.com), [csekhar@iegindia.org](mailto:csekhar@iegindia.org); Homepage:[www.iegindia.org](http://www.iegindia.org)

Nationality: Indian  
Date of Birth: 13 December 1965  
Gender: Male  
Marital Status: Married with two daughters

### Research and Teaching Interests

Agricultural markets (market structure, price formation, exports, and imports), food security, agricultural growth, rural development, political economy of development and governance. Other interests include applied Econometrics, econometric modeling, WTO issues related to agriculture, Development Economics and Law & Economics.

### Education

- **Ph.D(Economics)**, Delhi School of Economics, University of Delhi, Delhi, India

Title of the Ph.D Thesis – *Determinants of Prices of Selected Agricultural Commodities in World Market: An Empirical Analysis*

Thesis Advisor: Professor Pami Dua

- **M. Phil (Economics)**, Delhi School of Economics, University of Delhi, Delhi, India

Title of the M.Phil Thesis – *Agricultural Trade Liberalization and its Impact on Indian Agriculture*

Thesis Advisors: Professors V. Pandit and Suresh Tendulkar

- **L.LB (Bachelor of Laws)**, Law Centre I, University of Delhi, Delhi, India
- **M.Sc (Master of Science in Applied Statistics)**, Osmania University, Hyderabad, India

### Work History

- Professor, **Institute of Economic Growth, Delhi University**, December 2016 to present
- Associate Professor, **Institute of Economic Growth, Delhi University**, December 2007- November 2016
- Assistant Professor, **Institute of Economic Growth, Delhi University**, May 2007 - December 2007

- Fellow, **Indian Council for Research on International Economic Relations (ICRIER)**, New Delhi, December 2001-December 2003 (on leave from AERC, Delhi University)
- Consultant, **Centre for Economic and Social Studies (CESS)**, Hyderabad, May 1993-February 1995 (on leave from AERC, Delhi University)
- Associate Fellow, **Agricultural Economics Research Centre (AERC)**, Delhi School of Economics Campus, Delhi University, October 1988-May 2007

### Teaching interests and previous teaching stints

- **Presently teaching Applied Econometrics to probationers of Indian Economic Service.** I teach Econometric methods related to analysis of time series, cross section and panel data. These include classical linear models; statistical inference; stationary and non-stationary time series; VAR and VECM, ARCH/GARCH models; fixed and random effects estimation and forecasting etc.
- **Lectures on Time Series Techniques (2017)** at the *Research Methodology Workshop on Econometric Techniques: Theory and Application*, Department of Economics, Jamia Millia Islamia, February 2017 – 1) Non-stationarity 2) VAR and VECM, Impulse response functions and Variance Decomposition 3) Modeling volatility – ARCH/GARCH models including Threshold ARCH models such as TARARCH, IGARCH, EGARCH etc 4) Model selection criteria and diagnostic testing,
- **Module on Time Series Econometrics to IES Probationers (2008)** – Box-Jenkins Models, Non-stationarity, VAR and VECM, ARCH/GARCH models
- **Module on Econometrics at TERI University (2008)** – 1) Basic Statistics, distributions and statistical inference and hypothesis testing 2) General Linear Model, heteroscedasticity, autocorrelation, multicollinearity, methods of estimation (OLS, GLS) 3) Simultaneous Equation Models – identification, IV, 2SLS, 3SLS 4) Model Specification and Diagnostic Testing - Model Selection Criteria -  $R^2$ , Adjusted  $R^2$ , AIC, SBC etc; and diagnostic testing - Ramsey RESET test, Chow's Prediction Failure Test

I have used some of these techniques in my own research on modeling international and domestic agricultural markets. Articles based on this research appeared in journals such as *Journal of Policy Modeling*, *Food Policy*, and *Journal of International Food and Agri-Business Marketing* among others. Many of these analytical tools, particularly those relating to time series Econometrics, can be useful in modeling high frequency data in financial, capital and commodity markets. I am interested in teaching these and similar quantitative tools & techniques.

### Research Experience

- Completed several research projects and studies for Ministry of Agriculture, Government of India

- Completed several research projects related to agriculture and rural development funded by various multilateral agencies and Government of India.
- Research consultancy assignments with international agencies – UN-FAO, IFPRI, UNCTAD and OXFAM.
- Authored studies in agriculture and rural development based on primary data at the Agricultural Economics Research Centre (AERC), University of Delhi. AERC, Delhi was a pioneering centre of Continuous Village Studies (CVS) in India.
- Membership of expert committees of Government of India - Ministry of Food, Ministry of Commerce, Ministry of External Affairs
- Guiding Ph.D. students affiliated with the Institute of Economic Growth and enrolled in various Indian Universities.
- External reviewer of national / international journals related to agricultural economics and rural development, econometric modeling etc. Some of these journals include *Food Policy*, *Journal of Agricultural Economics*, *Indian Economic Review*, *Indian Journal of Agricultural Economics*, *Agricultural Economics Research Review* and *Journal of Quantitative Economics*
- Teaching agriculture & rural development and applied econometrics to officers of the Indian Economic Service

### Awards / Honours

- **Fulbright-Nehru Senior Research Fellowship** for 2012-2013. As part of the Grant, worked on developing a global rice market model at the Food and Agricultural Policy Research Institute (FAPRI), Centre for Agricultural and Rural Development (CARD), Iowa State University.
- EXIM Bank International Economic Development Research Award (IEDRA) Jury commendation for excellent research work in 2009
- Medal Finalist for outstanding research on development in the Fifth and Ninth Global Development Network Conferences in New Delhi (2004) and Brisbane (2008)
- **D.K Desai Award** for the best research paper published in the Indian Journal of Agricultural Economics during the year 2003

### Membership of Committees / Study Groups

- 1) Member, *Study Group to prepare Long-term Sustainable Development Plan for Andaman & Nicobar Islands*, 2015
- 2) Member, *Committee to Evaluate the Impact of State Level PDS Schemes*, Ministry of Consumer Affairs, Food and Public Distribution, Government of India, 2008

### Membership of Professional Associations

- 1) Life Member, *The Indian Econometric Society (TIES)*
- 2) Life Member, *Agricultural Economics Research Association (AERA)*

### Other Academic Activities

**Other Academic Activities:** Reviewer for Journals – *Food Policy*, *Journal of Agricultural Economics*, *Applied Economics*, *Indian Economic Review*, *Journal of Quantitative Economics*, *Indian Journal of Agricultural Economics*, *Agricultural Economics Research Review*

## Details of Research Work

### Select Publications

#### Books

**The Future of Indian Agriculture: Technology and Institutions** (eds) Nilabja Ghosh and C.S.C.Sekhar, *Academic Foundation*, New Delhi, January 2013

**Food Inflation and Food Price Volatility in India: Trends and Determinants** (forthcoming), Orient Blackswan

#### Papers in Refereed Journals / Edited Volumes/ Reports

1. ‘Food Inflation and Food Price Volatility in India – Trends and Determinants’, Discussion Paper 01640, *International Food Policy Research Institute* (IFPRI), Washington, D.C, May 2017.
2. ‘Demonetization and Indian Agriculture’ in *Demonetisation: The Economists Speak* (ed) Uma Kapila, Academic Foundation, New Delhi, 2017
3. ‘India’s Agricultural Exports: Prospects and Constraints’ in *International Trade and Industrial Development in India: Emerging Trends, Patterns and Issues* (eds) R. Nagaraj and C. Veeramani, Orient Blackswan Publishing co, June 2016
4. ‘Whither Food Policy and Institutions in India?’, *Agricultural Economics Research Review*, Vol. 28 (No.1), January-June 2015
5. ‘Agricultural Market Integration – A Review of Theory and Empirics with Special Focus on India’ in *The Future of Indian Agriculture: Technology and Institutions* (eds) Nilabja Ghosh and C.S.C.Sekhar, *Academic Foundation*, New Delhi, 2013
6. ‘Price Discovery in Indian Commodity Futures Markets– An Empirical Analysis of Select Agricultural Commodities’ (with Danish A Hashim) in *The Future of Indian Agriculture: Technology and Institutions*(eds) Nilabja Ghosh and C.S.C.Sekhar, *Academic Foundation*, New Delhi, 2013
7. Agricultural Market Integration in India: An Analysis of Select Commodities’, *Food Policy*(Elsevier), Volume 37, Issue 3, June 2012, pp. 309-322
8. ‘Food Security in South Asia: Prospects for Regional Integration’ (with Yogesh Bhatt),*Background Paper No RVC 6 for Regional Value Chains, UNCTAD*, United Nations Conference on Trade and Development (UNCTAD), November 2012

9. 'Market Power and World Price: The Role of Asian Rice Exporters' *Journal of International Food and Agribusiness Marketing*, Routledge (Taylor & Francis Publishers), Vol 24, No 3, June 2012, pp. 250-272.
10. 'How Market-oriented is the United States' Farm Policy?' (with Yogesh Bhatt), *Economic and Political Weekly* (Special Article), XLVII, No 7, February 18, 2012, pp 63-72
11. 'World Foodgrain Prices: The Effect of Exporting Countries' Policies', *Indian Economic Review*, Vol 46, Issue 2, July-December, 2011, pp. 217-242
12. 'Fragile States – The Role of Social, Political and Economic Factors', *Journal of Developing Societies*, Sage Publications, Vol. 26, Issue No 3, Jul-Sep 2010, pp. 263-293
13. 'Structure of the World Wheat Market: Some Implications for Strategic Trade Policy?', *Journal of Quantitative Economics*, Volume 8, No 2 (New Series), July 2010, pp. 142-158
14. 'Agricultural Growth and Rural Employment – Some Lessons from China?', *China Report*, Sage Publications, Vol. 46, No 1, Jan-Mar 2010, pp. 29-36
15. 'Agricultural Market Integration in India – An Analysis of Select Commodities', Chapter 7 in *How Are Poor Affected by International Trade in India: An Empirical Approach*, Draft Report of the United Nations Conference on Trade and Development (UNCTAD), 2009
16. 'Price Formation in World Soybean Oil Market – An Econometric Analysis', *Indian Economic Review*, Vol. XXXXIII, Number 2, July-December 2008, pp. 183-204.
17. 'World Rice Crisis – Issues and Options', *Economic and Political Weekly*, June 28, 2008, pp. 13-17
18. 'Surge in World Wheat Prices - Learning from the Past', *Economic and Political Weekly*, May 17, 2008, pp. 12-14
19. 'Agricultural Trade Liberalization, Poverty and Food Security – The Indian Experience' (with AnwarulHoda) in *The Dragon & Elephant : Agriculture and Rural Reforms in China and India*, (Eds) Ashok Gulati and Sheneggen Fan, IFPRI & Johns Hopkins University Press, Baltimore, December 2007 and Oxford University Press, Feb 2008
20. 'Economic Growth, Social Development and Interest Groups', *Economic and Political Weekly*, Vol 40, No 50. Dec 10-16. 2005, pp. 5338-5346 reprinted in PulapreBalakrishnan (ed), *Economic Reforms and Growth in India: Essays from Economic and Political Weekly*, Orient Blackswan, June 2011
21. 'Agricultural Price Volatility in International and Indian Markets', *Economic and Political Weekly*, Vol XXXIX, No 43, Oct 23-29, 2004, pp 4729-4736
22. 'Determinants of Price in World Wheat Markets – Hidden Lessons for Indian Policy Makers', *Indian Economic Review*, Vol. XXXVIII, No.2, July-Dec 2003, pp 167-187
23. 'Price Formation in World Wheat Markets – Implications for Policy', *Journal of Policy Modeling*, Elsevier (North-Holland), Vol 25, Issue 1, January 2003, pp 85-106

24. 'Agricultural Trade Liberalisation – Likely Implications for Rice Sector in India', *Indian Journal of Agricultural Economics*, Vol 58, No 1, Jan-Mar, 2003, pp. 42-63

This paper received the **D.K Desai Award** for the best research paper for the year 2003

25. 'Agriculture and Rural Development – Need for Reforms', *ArthaVijnana*, Gokhale Institute of Politics and Economics, Vol. XLIV, No. 1, March 2002, pp 47-61

### Invited Papers (Non-Refereed)

24. 'Union Budget 2016-17: A Shot in the Arm for Agriculture', *Yojana*, March 2016, pp 7-9
25. 'Political Economy of Public Distribution System in India', *Yojana*, August 2015, pp 54-58
26. 'Indian Agriculture – A Review of Policy and Performance', *Yojana*, June 2014, pp 32-36
27. 'High MSP s Driving Inflation in Cereals', *Economy Matters*, CII, Sep-Oct 2013
28. 'Cereals Sector In India: Recent Trends and Projections', **Special Report**, *Commodity Vision*, Vol 2, Issue 2, Oct-Dec 2008, pp. 60-67

### Articles in Popular Media

- i) "Pulses sector heading for a crisis", *Business Standard*, 2 January, 2017
- ii) "Demonetisation to hit farmers badly", *Financial Express*, 29 December, 2016
- iii) "Note ban dents farm sector, but slightly", *Deccan Herald*, 23 November, 2016
- iv) "Agri tenancy needs immediate reforms", *Deccan Herald*, March 24, 2016
- v) "Budget positive for agriculture", *Business Standard*, March 12, 2016
- vi) "Persistent food inflation worrying", *Deccan Herald*, December 2, 2015
- vii) "Pulses prices: Fall in production, structural factors responsible", *Deccan Herald*, Oct 21, 2015
- viii) "Revamping foodgrain policy", *Economic Times*, Dec 18, 2010
- ix) "How serious is rainfall deficiency for kharif ?", *Economic Times*, Dec 18, 2010
- x) "Is food crisis in India imminent?", *Economic Times*, 22 Apr, 2008

### Working Papers

- i) (co-authored with Rashmi Banga) "Public stockholding of food in India: Can it distort international trade?" Working Paper No CWS/WP/200/ 23, Centre for WTO Studies (CWS), Indian Institute of Foreign Trade, New Delhi, October 2015

- ii) Effect of Exporting Countries' Stocks and Trade Policies on World Price - An Analysis of Cereal Markets, *Discussion Paper No.131/2009*, March 2009, Institute of Economic Growth, [www.iegindia.org](http://www.iegindia.org)
- iii) Volatility of Agricultural Prices – An Analysis of Major International and Domestic Markets, *Working Paper 103, ICRIER*, June 2003, [www.icrier.org](http://www.icrier.org)

**Completed Research Studies on Agriculture and Rural Development**  
(for the Ministry of Agriculture, Government of India)

Few of the important research studies, which I have completed at **Institute of Economic Growth and Agricultural Economics Research Centre**, Delhi University, are given below in the reverse chronological order.

- i) *Relationship between Wholesale prices, Retail prices, Export prices (FOB), Prices realized by farmers (2016)*
- ii) *Effect of Farm Mechanization on Agricultural Growth and Comparative Economics of Labour and Machinery in India (2014)*
- iii) *Possibilities and Constraints in Pulses Production in India & the Impact of NFSM (2012)*
- iv) *Review of Comprehensive District Agricultural Plans (C-DAP) for the states of U.P., Punjab, and Himachal Pradesh (2009)*
- v) *Forecasting Agricultural Output using Space, Agro-Meteorological and Land Based observations (FASAL)*
- vi) *Viability of Women's Entrepreneurial Trade in Agriculture in Uttaranchal (2007)*
- vii) *Assessing the Existing Training and Testing Facilities for Farm Machinery in Haryana (2001)*
- viii) *Sources of Agricultural Growth in Semi-Arid Regions : A Case Study of Haryana (1998)*
- ix) *Infrastructure Enumeration for Decentralized Planning (1992)*
- x) *Growth and Variability in Agriculture of Punjab and Haryana - A District-wise Analysis (1990)*