

Saradindu Bhaduri

Associate Professor

Centre for Studies in Science Policy (CSSP)

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Employment:

- Apr 2014 – till date Present Position
- Oct 2003- Apr 2014 Assistant Professor, CSSP, JNU
- Dec 2002 – Oct 2003 **Lecturer (Economics)**
Department of Commerce with Farm Management
Vidyasagar University, West Bengal
- Apr 2002 – Dec 2002 **Research Scientist (Lecturer grade)**
Centre for Studies in Diplomacy, International Law and Economics
(currently, Centre for International Trade and Development)
School of International Studies
Jawaharlal Nehru University, New Delhi
- Feb 2000 – March 2002 **Research Associate (pre-PhD level)**
Department of Humanities and Social Sciences
Indian Institute of Technology Delhi

EDUCATION

December, 2001

Ph.D. (Economics), Jawaharlal Nehru University, New Delhi

Thesis title: *An Economic Analysis of R&D and Technology Generation in the Indian Pharmaceutical Industry*, Supervisor: Professor Amit S Ray

1999 MPhil. (Economics), Jawaharlal Nehru University, New Delhi

Thesis Title: *An Analysis of In-house R&D Effort of LDC Enterprises: Some Evidence from Indian Chemical and Electronics Sectors*,
Supervisor: Professor Amit S Ray

1997 MA in Economics (World Economy, EIL), School of International Studies, Jawaharlal Nehru University

Post Doctoral Fellowship

- **Post Doctoral Fellow in Evolutionary Economics**, Evolutionary Economics Group, Max Planck Institute of Economics, Jena, Germany, (one year, 2005).

AREAS OF INTEREST

- Technological change, technological capability and innovation in formal and informal sectors of developing economies.

- Technology Policy: Standards, Regulations, Motivations and incentives, Ideologies and policymaking, Intellectual Property Rights.
- Applied Econometrics (Cross section modelling)
- Heterodox economics

TEACHING:

1. Analysis in Science Policy (Monsoon Semester, Compulsory)
2. Economics of Technological Change and Innovation System (Winter Semester, Optional)
3. Intellectual Property Rights: A Foundation Course (Winter Semester, Optional)
4. Economics of Technology and Development (Occasionally. MA Economics at the Centre for International Trade and Development. Course in-Charge: Amit S Ray)

RESEARCH SUPERVISION

PhD (Completed)

1. Traditional medicinal knowledge in the post-WTO regime: A study of tribal practices in Wayanad district, Kerala. Deepa V.K. (submitted, September, 2015).
2. "Standards, technology and public participation: regulation-making for bottled water quality in India". Aviram Sharma. 2015.
 - *Present Position: Assistant Professor, Centre for Ecology and Environment Studies, Nalanda University.*
3. "Market based approaches in the negotiations at the UNFCCC: Implications for environmental justice". Manish Srivastava. 2014.
 - *Present Position: Fellow, The Energy Research Institute (TERI). New Delhi*
4. "Exploring motivation, collaboration and linkages for grassroot innovation systems in India". Hemant Kumar. 2012.
 - *Present Position: Assistant Professor, Central University of Gujarat.*
5. "Innovation dynamics in shifting cultivation: the case of Jhum in Nagaland", by Abhinandan Saikia, 2011.
 - *Present Position: Assistant Professor, Tata Institute of Social Sciences (TISS), Guwahati.*
6. Gender Discrimination, Technology and Institution in the Indian Coal Mine Industry: an evolutionary perspective", by Nesar Ahmad, 2011.
 - *Present Position: Coordinator, Budget Analysis Rajasthan Centre, Jaipur.*

PhD (Ongoing):

1. Ideational influence of Bengal Renaissance and Rabindranath Tagore on India's S&T policies of self-reliance. Noklennyangla.
2. An institutional analysis of rainwater harvesting technologies in the commons: a study of select areas in Rajasthan. Anushree Singh.

3. Perspectives on informal sector innovations in India: value theory revisited. Fayaz Ahmad Sheikh.
4. Social values, IPR diversity and economic performance: a 'comparative institutional analysis' perspective. Deep Jyoti Francis.
5. Globally harmonised clinical trials in India: a socio-economic analysis. Brijesh Regal. (Joint supervision with Amit S Ray).
6. Persistence of Fixed Dose Combinations in the Indian Pharmaceutical Industry: an evolutionary perspective. Rahul Mongia.
7. Technological changes in Indian household water purifiers: an evolutionary perspective. Nazia Talat.

❖ **Completed supervising 17 MPhils. 2 Ongoing.**

PUBLICATIONS:

Monograph:

- *The Political economy of smoking tobacco in India: Perspectives on Production, Consumption and Control*. VHAI, New Delhi (2010). (with Amit S Ray and Hemant Kumar)
 - http://www.telegraphindia.com/1100219/jsp/nation/story_12125376.jsp for a brief sketch of our key arguments.

Edited Book and Journal Issues:

1. Guest Editor, *Science Technology and Society*. Sage.
2. BOOK (Forthcoming). Editor, *Informal Sector Innovations: Perspectives from the Global South*. Routledge. (with: Mammo Muchie, Anga Baskaran and Fayaz Ahmad Sheikh), forthcoming 2016.
3. Editor, Special Issues [nos. 6(3) and 6(6)] on *Informal sector innovation*. *African Journal of Science Technology Innovation and Development*. Taylor and Francis, Routledge. 2014.

Journal Articles (reverse chronological order):

1. Politico-historical contingencies, intellectual property rights, and economic performance across countries: A simultaneous equation system perspective. *The Journal of World Intellectual Property*. Vol 18 (3-4). 2015. 107-126. (with D. J. Francis, D. Dutt, V. Kumar, F.A. Sheikh).
2. A Commentary on "Growth of Water purification technologies in the era of regulatory vacuum in India: a critical outlook". *Current Science*. 108 (8). 1421-23. 2015 (with Aviram Sharma and Nazia Talat)
 - This research was taken up by the Indo-Asian News Service (IANS) and the report prepared by them was covered by all leading dailies in India, and news papers in Middle East, other Asian Countries and USA.
3. "Seventy five years of National Planning Committee (1938-2013) A recollection" *Science and Culture*. 81 (3-4), 2015 pp. 66-71. (with Noklenyangla).

4. "Jugaad to grassroots innovation: understanding the landscape of India's informal sector innovation". *African Journal of Science, Technology, Innovation and Development*, 6(1 & 2), **2014** pp. 13-22 (with Hemant Kumar)
5. "Consumption conundrum of bottled water in India: An STS perspective" in *Bulletin of Science Technology and Society*. 33 (5-6): pp. 172-181, first online published on May 2, **2014** (with Aviram Sharma)
6. "Public understanding of participation in regulation: The case of bottled water quality standards in India" *Public Understanding of Science*. 23 (4) **2014**: 670-688. DOI: 10.1177/0963662512452231, 2012 (with Aviram Sharma)
7. "Examining the determinants of drug launch delay in pre-TRIPS India" in the *European Journal of Health Economics*. 14(5):761-773. **2013**. DOI: 10.1007/s10198-012-0422-7 (with Thomas Brenner)
8. "An Institutional analysis of transition to market: The case of shifting cultivators in Mon, Nagaland", the special issue on 'Rural Marketing' of the *International Journal of Rural Management*, 8 (1 & 2) **2012**. (with Abhinandan Saikia)
9. "Extrinsic and intrinsic motivations to innovate: tracing the motivations of 'grassroot' innovators in India". *Mind and Society* 10(1): 27-55, **2011** (with Hemant Kumar) (First Online in 2010)
10. A short essay on "TRIPS in India: Reasons and Rhetorics", *Vidyasagar University Journal of Commerce*, 11, pp. 28-39. (2006)
11. "A Game theoretic model of drug launch in India", *Health Economics, Policy and Law*, 1(1), pp. 23-39 (2006) (with Amit S Ray),
12. "Exporting through Technological Capability: Econometric Evidence from India's Pharmaceutical and Electrical/Electronics Firms", *Oxford Development Studies*, 32 (1), 2004 (with Amit S Ray)
13. "The Political Economy of Drug Quality: Changing Perceptions and Implications for the Indian Pharmaceutical Industry", *Economic and Political Weekly*, 38 (23), 2003. (with Amit S Ray).
14. "R&D and Technological Learning in Indian Industry: Econometric Estimation of Research Production Function", *Oxford Development Studies*, 29(2), pp 155-171, 2001. (with Amit S. Ray).

Chapters in Handbooks:

1. "Scientists' motivations to innovate, catch-up and collaborate: a trans-disciplinary perspective" in Hilpert U (ed) *Handbook on Politics and Technology*. Routledge. (Forthcoming in **2016**)
2. "Patenting Biotechnology" in Patzelt H, and T. Brenner (eds.) *Handbook of Bio-entrepreneurship*, Springer (Chapter 11). Berlin (2008)

Select Book Chapters (reverse chronological order):

1. Forest Policies and Tribal Traditional Medicinal Practices: A Perspective from India: in Agarwal M and Whalley J (eds.) *Sustainability of Growth of the Indian Economy*;

The Role of Economic, Technological and Environmental Factors. Asia and the World Series. World Scientific, Singapore. **2015**. (with VK Deepa).

2. "Competing through technological capability: The case of the Indian pharmaceutical industry". In Daniel Drache and Lesley Jacobs (*eds*) "New Policy Spaces for a Dismal Global Economic Age: International Trade and Human Rights Linkages". Cambridge University Press. **2014**. (with Amit S Ray)
3. "Cognitive frame and employment opportunity - the case of Jhum cultivators in Nagaland"- in Singha K (ed.) Rural Development in India: Prospect and Retrospect. Concept. New Delhi. 2010. (with Abhinandan Saikia).
4. "Surviving through Organisational Changes: Indian Pharmaceutical Industry post-Globalisation" CSK Singh Mitra PP and A. Palit (*eds*). *Globalisation and the Work Place*, PM Bagchi, Kolkata (2006)
5. "The political economy of rural health care in India" in Gangopadhyay P. and M Chatterji (*eds*), *Economic Globalization in Asia*, Ashgate (London), 2005. (with Amit S. Ray)
6. "Technological Development in Indian Industry: Challenges and Options after the East Asian Crisis", in R. Hooley & J.H.Yoo (*eds*.), *The Post Financial Crisis Challenges for Asian Industrialization*, Elsevier Science (JAI): Amsterdam, 2002. (with Amit S Ray).

Refereed discussion papers:

1. "Competing through technological capability: The case of the Indian pharmaceutical industry". CSSP Working Paper 03, **2012** (with Amit S Ray)
2. 'Tracing the motivation to innovate-A Study of grassroot innovators in India'. *Papers on Economics and Evolution* (0912). Max Planck Institute of Economics. November 2009. (with Hemant Kumar).
3. "Informal values and formal policies: A study of Japanese technology policy and its significance for India". *ICRIER Working Paper* (Japan Chair) No. 219 (July 2008). (with Janashruti Chandra)
4. "Past experience, cognitive frame and entrepreneurship: some econometric evidence from the Indian pharmaceutical industry", *Papers on Economics and Evolution* 0804, Max Planck Institute of Economics. (May 2008) (with Hagen Worch)
5. "Vicarious learning and socio-economic transformation in Indian trans-Himalaya", *Papers on Economics and Evolution*, 0518, Max Planck Institute of Economics, December 2005. (with K. Chandrasekhar)

INVITED LECTURES:

1. Invited to deliver a talk on "frugal Innovation: Environmental Issues and Appropriability Challenges" at the Workshop on IPR: Environmental and Economic Issues, Organised by the MHRD Chair on IPR, National Law University Jodhpur. 29 August, **2015**.

2. Delivered a lecture on “Innovation and economic development: micro and macro perspectives”, Department of Economics, Kashmir University. Srinagar. 9 July, **2015**.
3. Invited Speaker, “Understanding the ecosystem of informal grassroot innovations in India” at National Conference on Foresight and Technology Futures (NCFTF2015). Department of Future Studies, Kerala University. 19-20 March, **2015**.
4. Delivered a lecture for the 49th Refresher Course for University and College teachers in Political Sciences. Academic Staff College, JNU. 11 March, **2015**.
5. Delivered the Keynote address on “Frugality in innovations: a heterodox economics perspective” at First Annual Workshop of the Centre for Frugal Innovation in Africa, The International Institute of Social Studies, The Hague, The Netherlands. 5 March, **2015**.
6. Delivered a special lecture on “Self-reliance in India’s science policies: a historical-institutional sketch”, at Central University of Gujarat, 27 March, **2014**.
7. A lecture delivered on “Economics of Science Policy” in, Refresher Course for University and College teachers in Economics. University of Delhi. 17 December, **2012**
8. Delivered a lecture on “Competing through technological capability: the case of the Indian Pharmaceutical Industry” at IRD, University of Marseille on 18 May, **2012**. (with Amit S Ray).
9. Delivered 3 special lectures as Visiting Faculty (UGC Merged Scheme), Vidyasagar University, Midnapore. March **2012**.
10. Delivered two lectures on “*Institutional economics*” at the Refresher Course for University and College teachers in Economics, March, **2012** at Academic Staff College, JNU.
11. Delivered a lecture on “Analysing the launches of new drugs in pre-TRIPS India” National Institute of Science Technology and Development Studies (NISTADS), New Delhi. 24 January, **2012**.
12. Delivered a lecture on “Informal values and formal policies: Japan’s technology policy” at the Institute of Chinese Studies, Delhi University. 28th October 2009.
13. Delivered a lecture on “*Institutions and technology transfer*” at the Refresher Course for University and College teachers in Economics, August, 2009 at Academic Staff College, JNU.
14. Delivered a lecture on “*Transfer of Technology*” to the Probationers of Indian Statistical Service, at the Indian Institute of Planning and Administration (IIPA), February 2007.
15. Delivered a lecture on “*Methods in Evolutionary Economics*” at the Refresher Course for University and College teachers in Economics, January 2004 at Academic Staff College, JNU

EDITORIAL ACTIVITIES:

- **Assistant Editor, and Member, Editorial Board:** African Journal of Science Technology Innovation and Development (2014-).
- **Editor,** CSSP working Paper Series (2014-)
- **REFeree OF JOURNALS/CONFERENCES**
 - Public Understanding of Science
 - Research Policy
 - World Development
 - Industry and Innovation
 - Science, Technology and Society

- Water Economics and Policy
- World Review of Science, Technology and Sustainable Development
- Member, Review Committee, Danish Research Unit of Industrial Dynamics (DRUID) summer conference
- Globelics Review Committee

RESEARCH COLLABORATIONS/NETWORKING AND GRANTS:

- *Member*, European Network on Frugal Innovation.
- Member, Newsletter Committee, INDIALICS (the India chapter of Globelics)
- *Co-Investigator*, *Marie Curie Actions- International Staff Exchange Scheme* (IRSES)- **Crossing Boundaries: Knowledge and Technology Transfer and Innovation** (FP7-PEOPLE-2012-IRSES, Project No. 318928), **Ongoing** (with VV Krishna, Madhav Govind in India. Chief Coordinator: Christos, Kalantaridis, University of Bradford, UK).
- *Co-Principal Investigator in Clinical data, Bioequivalence and Generic Drugs: Analysis from India and Brazil*, Collaborative Research project with Dr Fabienne Orsi, University of Aix Marseille and Dr Claudia Chamas, FIOCRUZ, Brazil sponsored by ANRS (The French National Agency for Research on AIDS and Viral Hepatitis), Government of France (April, 2012-April, 2014), (Principal Investigator, India: Amit S Ray)
- *Received Editorial Assistance Grants* for editing two special issues of African Journal of Science Technology Innovation and Development (Taylor and Francis). (2013-14).
- *Principal Researcher*, Political economic understanding of tobacco consumption in India. Funded and coordinated by the Voluntary Health Association of India (2009-10).
- *Received research support grants* from the Chair of Comparative Politics, Friedrich Schiller University of Jena, Germany for writing a chapter in the Routledge Handbook of Technology and Politics (forthcoming).
- *Received Research grants to write a paper on* “Informal values and Formal policies; the case of Japan’s technology policy and lessons for India. Coordinated by the Japan Chair of the ICRIER (Delhi), and funded by Sasakawa Foundation, Japan. (2008)

VISITING FELLOW/ACADEMIC VISITS

- Academic Visitor, Tallinn University of Technology, Estonia, 15-25 June, 2013
- Visiting Faculty, Vidyasagar University, West Bengal, India, March 2012
- Visiting Fellow, Centre for Research in Economic Sociology and Innovation (CRESI), University of Essex. United Kingdom, June 2011.
- Visiting Faculty, Central University of Gujarat, India, November 2009.
- Visiting Fellow, Evolutionary Economics Group, Max Planck Institute of Economics, Jena, Germany, June-July, 2007.

MEMBERSHIP OF COMMITTEES (Invited):

1. Member, Advisory Committee on Status of Social Science Research in India. Indian Council of social Science Research in India
2. Member, Bio-Medical Ethics Committee, New Delhi.