



Prof. Tuhin K Das

Planning and Development Unit
Department of Economics
Jadavpur University, Kolkata 700 032, India
Phone: +91 9836986615 (M), 91(33) 2414 6328 (O)
E-mail: tuhin22@hotmail.com, ju.tuhinkdas@gmail.com

Tuhin K Das is the Chair Professor (Honorary) of the Planning and Development Unit (a Unit of the Planning Commission of India), and the former Professor of Economics, Jadavpur University.

Educational Qualification: He obtained his M. Sc. degree in Applied Mathematics in 1974 and Ph. D. degree in Computational Mathematics in 1982 from Jadavpur University.

Research Experience: He started his career as a researcher in development and application of Computational Methods in Aerodynamics and Artificial Intelligence, and worked as a Research Fellow (1976-77) in UGC Project on "Machine Diagnosis of Heart Diseases using ECG Recordings" and Senior Research Fellow (1977-78) in Ministry of Defence Project on "Development of Techniques for Early Warning Systems ". In 1978 he joined as an Associate Programmer in the Economics Department of Jadavpur University and since then has been engaged in research on Operations Research and Interdisciplinary Science like Energy and Environmental Economics, Health Economics, etc. He has supervised many Ph. D and M. Phil students and undertaken a number of funded research projects.

Research Projects Undertaken

- *Evidence-based policy for post-crisis stabilization: bridging the gap*, funded by European Union (ongoing)
- *Integrated Health, Social and Economic Impact of Extreme Events: Evidence, Methods and Tools*, funded by European Commission, 2011
- *A Field Survey to Evaluate Costs and Effectiveness of Complementary and Alternative Medicines*, financed by DSA Centre for Regional Economics, Jadavpur University, Kolkata, 2005
- *A fuzzy set theoretic approach to religiosity and its functional relationship with socio-economic factors*, financed by DSA Centre for Regional Economics, Jadavpur University, Calcutta, 2002
- *Degradation of Water Bodies and Wetlands in West Bengal: Interaction with Economic Development*, World Bank Project (Environmental Management Capacity Building – EMCAB), 1999
- *Energy Consumption in North Bengal Tea Estate*, financed by DSA Centre for Regional Economics, Jadavpur University, Calcutta, 1995
- *Cost-Benefit Analysis of the Solar Water Heating System in Khardah Jute Mill and Solar Cookers under Operation in Different Parts of Calcutta*, financed by West Bengal Renewable Energy Development Agency, Calcutta, 1994

- *The Economy of Marine Fishing in West Bengal: Digha Coastal Region*, financed by the Department of Ocean Development, 1992
- *Integrated Rural Energy Programme for Gorubathan Block*, financed by the Department of Development Planning, 1991
- *An In-depth Study of Energy Utilisation pattern and Future Need*, financed by the Department of Non- Conventional Energy Sources, 1987
- *Integrated Rural Energy Programme: Survey Report and Action Plan Frame*, financed by Planning Commission, 1985

Research Students Supervised:

(A) Ph. D.

- ❖ *Status of the Alternative and Complementary Medical Systems in India: An Economic Assessment*, Dipanwita S. D. Choudhury, 2006.
- ❖ *An Analysis of Energy Consumption in Bangladesh*, Subrata Kumar Bain, 2004.
- ❖ *Economic Growth and Environmental Quality in Different States of India: An Assessment of Environmental Kuznets Curve*, Tapasree Banerjee, 2004.
- ❖ *Fuzzy Set Theoretic Approach to Measurement of Religiosity in Kolkata Metropolitan Area*, Ishita Dutta Ray, 2004.
- ❖ *A Study on Information Economy of India*, Sikhanwita Roy, 2002.
- ❖ *Techno-Economic Evaluation of New and Renewable Energy Policy in Rural Areas of Eastern India*, Sonaton Ghosh, 2002.
- ❖ *Impact of Wildlife Conservation on Different Socio-economic Groups in Selected Areas of West Bengal – An Evaluation*, Indrila Guha, 2002.
- ❖ *Economics of Marine Fishing in India with Special Reference to West Bengal*, Rajyasri Neogy, 2000.
- ❖ *An Empirical Analysis of Natural Resource Utilisation in Indian Economy*, Gautam Sarkar, 1999.
- ❖ *Energy Consumption and Choice of Technology - with Special Reference to Selected Regions of Rural West Bengal*, Sonali Banerjee, 1998.
- ❖ *Productivity, Efficiency and Technological Changes in Indian Manufacturing Industries: A Quantitative Approach*, Buddhadeb Ghosh, 1998.

(B) M. Phil.

- ◆ *An Assessment of the Health Care Infrastructure and Health Care Need in India*, Sudakhina Mitra, 2009
- ◆ *Energy in Transition: 1973-95*, Tapasree Banerjee, 1998
- ◆ *Consumer's Behavior in the Parallel Marketing System of LPG: A Micro Study*, Chandrima Deb, 1997
- ◆ *Some Aspects of the Integrated Rural Energy Planning Programme in India*, Suparna Bhattacharya, 1997
- ◆ *Role of Independent Power Producers in the Indian Economy*, Patralika Roy, 1997
- ◆ *Energy Audit in Dooars Tea Industry - A Practical Discourse*, Aditi Roy, 1996
- ◆ *Indian Information Sector: Experiment with Input-Output Technique*, Arundhuti Sengupta, 1995
- ◆ *Cost-Benefit Analysis of Renewable Energy Technology - A Case Study in Jute Industry*, Atanu Kr. Jhuri, 1995
- ◆ *Importance of Alcohol and Availability of its Raw Material: Some Problems in West Bengal*, Nityananda Patra, 1994

- ◆ *Some Considerations on Fuel wood Based Rural Energy System - A Case Study*, Sonali Banerjee, 1993
- ◆ *Temporal Changes in Interactions among Resource Sectors and Resource Using Sectors in India*, Gautam Sarkar, 1993
- ◆ *Relevance of Renewable Alcohol Feedstock as a Substitute in Petrochemicals*, Moitri Gangopadhyay, 1993

Research Publication:

(A) Books

- ✚ *Development Policy Issues in India, Volume-2: Studies on Disparity and Displeasure*, ACB Publications, Calcutta, 2013 (Co-editors – S. K. Haldar and S. Mitra)
- ✚ *Development Policy Issues in India, Volume-1: Theoretical & Empirical Studies on Poverty*, ACB Publications, Calcutta, 2012 (Co-editor – S. K. Haldar)
- ✚ *Disaster in West Bengal: An Interdisciplinary Study*, ACB Publications, Calcutta, 2011 (Co-editors – I. Das Gupta, D. Lohar and B. Bhattacharyya)
- ✚ *West Bengal Economy – Some Contemporary Issues*, Allied Publishers Limited, 2005, (Co-editor – A. Raychaudhuri)
- ✚ *Economics of Man-animal Conflict: A lesson for Wildlife Conservation*, ACB Publications, Calcutta, 2003 (Co-author – I. Guha)
- ✚ *Global Energy Transition: Regional and Environmental Perspectives*, ACB Publications, Calcutta, 1999 (Co-author - T. Banerjee)

(B) Journals and Edited Volumes

HEALTH ECONOMICS

- ◆ *Are “Complementary and Alternative Medicines” Alternative to Conventional Medical System? An Economic Evaluation*, Applied Economics Letters, 14, 697-700, 2007 (Co-author – D. S. Datta Choudhury)
- ◆ *Cost-Effectiveness Analysis of the Role of Quacks in the Rural Health Sector*, Artha Beekshan, Vol. 15, No. 3, 2006. (Co-author – D. S. Datta Choudhury).
- ◆ *Inter-State Variation in Medical Services under Allopathy and CAM*, Development Challenges – Some Contemporary Issues, (Ed. by J. Roy and A. Raychaudhuri), Allied Publishers Limited, 2006 (Co-author – D. S. Datta Choudhury).

ECONOMICS OF RELIGION

- ◆ *A Regret Analysis of Religiosity*, Journal for Interdisciplinary Research on Religion and Science, NO. 4, January 2009
- ◆ *Monopolistic Competitive Market of Hindu Temples: A Case Study*, Applied Economics Letters, 15, 69-72, 2008 (Co-author – I. Datta Ray)

- ◆ *An Empirical Study Outlining the Factors that Impact e-Religion Infrastructure and e-Religiosity*, Journal for Interdisciplinary Research on Religion and Science, NO. 3, July 2008 (Co-author – K. Bagchi)
- ◆ *Market of Religion in West Bengal*, West Bengal Economy – Some Contemporary Issues, (Ed. by A. Raychaudhuri and T. K. Das), Allied Publishers Limited, 2005 (Co-author – I. Datta Ray).

ENERGY, RESOURCE & ENVIRONMENTAL ECONOMICS

- ◆ *Wetland of Non-Prominence: Their Preservation and Resultant Conflicts*, Revisiting Resources – An Indian Perspective, (Ed. by G. Gupta), Allied Publishers Limited, 2005 (Co-author – A. Mukherjee).
- ◆ *Deployment of Renewable Energy in West Bengal: An Evaluation Study*, West Bengal Economy – Some Contemporary Issues, (Ed. by A. Raychaudhuri and T. K. Das), Allied Publishers Limited, 2005 (Co-author – S. Ghosh).
- ◆ *Sustainability of A Wood-Based Power Plant: An Experience in India*, Energy, 29, 155-166, 2004 (Co-author – S. Ghosh and T. Jash).
- ◆ *Kuznets Curve to Deforestation and Economic Growth in India: Inter-State Analysis*, Artha Beekshan, Vol. 11, No. 1, 2002. (Co-author – T. Banerjee).
- ◆ *A Study on Population Growth and Environmental Sustainability of a Wood Fuel Based Energy System*, Demography India, Vol. 29, No. 1, 43-52, 2000 (Co-authors – S. Banerjee and D. Chakraborty).
- ◆ *Sustainability of Marine fishing in West Bengal*, Applied Economics Letters, 7, 707-710, 2000 (Co-authors – R. Neogy and D. Chakraborty).
- ◆ *Environmental Consequences of Parallel Marketing of LPG in India*, Energy, 25, 81-84, 2000 (Co-authors – C. Deb and T. Jash).
- ◆ *Environmental Aspects of a Wood fuel Based Energy System*, Environmental Economics in India: Concepts and Problems (Ed. by G. Gupta and J. Roy), Allied Publishers Limited, 1999 (Co-author – S. Banerjee and T. Jash).
- ◆ *Possibilities of Private Investment in the Power Sector of West Bengal*, Artha Beekshan, Vol. 7, No. 2, 1998 (Co-author – T. Banerjee).
- ◆ *Integrated Rural Energy Planning Programme in West Bengal*, SESI Journal, Vol.7, No.1, 1997 (Co-authors – S. Banerjee and T. Jash).
- ◆ *Khardah: A Step Ahead*, Energy Alternatives, Vol.1, No.1, 1996 (Co-author – A. K. Jhuri).
- ◆ *Sustainability of a wood fuel based Energy System*, Natural Energy Review, Vol.1, No.4, 1996 (Co-author – S. Banerjee).
- ◆ *Relevance of Renewable Energy Policy to Urban Housing*, Natural Energy Review, Vol.1, No.5, 1996.

- ◆ *Technology Choice under Risk in Marine Fishing*, Fishery Technology, Vol.33, No.2, 1996 (Co-authors – R. Neogy and D. Chakraborty).
- ◆ *Technology Use Pattern in West Bengal Marine Fishing*, Environment and Ecology, Vol.13, No.3, 1995 (Co-authors – R. Neogy and D. Chakraborty).
- ◆ *Energy Technology Choice in Rural India*, Energy, Vol.20, No.7, 1995 (Co-authors – S. Banerjee).
- ◆ *Structural Change in the Indian Economy with Reference to Renewable and Nonrenewable Resources*, Journal of Applied Input-Output Analysis, Vol.2, No.1, 1994 (Co-author – G. Sarkar).
- ◆ *Population Growth, Energy Utilisation Pattern and Environmental Degradation. A Micro-Study*, Demography India, Vol.21, No.2, 1992 (Co-authors – S. Banerjee, J. Roy and D. Chakraborty).
- ◆ *New Technological Options in Energy Sector – Cost Burden on Rural Households*, Integrated Renewable Energy for Rural Development, SESI, Tata McGraw-Hill, New Delhi, 1990 (Co-authors – J. Roy and D. Chakraborty).
- ◆ *Rural Development, Income Distribution and Demand for Energy in a Rural Economy in South Bengal*, Economic Development Review, Vol.1, 1990 (Co-authors – D. Chakraborty and S. Seth).
- ◆ *Energy Consumption and Prospects for Renewable Energy Technologies in an Indian Village*, Energy, Vol.15, No.5, 1990 (Co-authors – D. Chakraborty and S. Seth).
- ◆ *New Technological Options in Energy Sector – Cost Burden on Rural Households*, Integrated Renewable Energy for Rural Development (Ed. SESI), Tata McGraw-Hill, New Delhi, 1990 (Co-author – J. Roy and D. Chakraborty).
- ◆ *Demand for Energy in a Rural Economy. A Micro Study*, Artha Vijnana, Vol.31, No.3, 1989 (Co-authors – D. Chakraborty and S. Seth).
- ◆ *Multi-objective Linear Programming Approach to Renewable Energy Policy Analysis*, Energy Management, Vol.11, No.1, 1987.
- ◆ *Energy Economics and the Environment*, Capital, Vol. No.196/4823, 1986 (Co-author – P. Ghose).

INPUT-OUTPUT ECONOMICS

- ◆ *A Study on the Indian Information Sector: An Experiment with Input-Output Techniques*, Economic Systems Research, Vol. 14, No. 2, 2002 (Co-authors – S. Roy and D. Chakraborty).
- ◆ *Information Strategy for the Indian Economy: Linkage Analysis*, Artha Vijnana, Vol. XLII, No. 3, 2000 (Co-authors – S. Roy and D. Chakraborty).
- ◆ *Working Capital in an Input-Output Model*, Economic Systems Research, Vol.1, No.1, 1989 (Co-authors – T. N. Raa and D. Chakraborty).

- ◆ *National Planning Model and International Consistency*, Contribution to National and Regional Planning Problems (Ed. by A. Ghosh), K. P. Bagchi & Co., Calcutta, 1983 (Co-author – A. Ghosh, J. Guha and D. Chakraborty).
- ◆ *The Application of Generalized Inverse in Static and Dynamic Input-Output Analysis*, Artha Vijnana, Vol.25, No.1, 1983 (Co-author – A. Ghosh).

COMPUTATIONAL METHODS

- ◆ *A Fuzzy Algorithm to Compute Transonic Profile Flow*, AIAA Journal, Vol.21, No.5, 1983.
- ◆ *Plane Transonic Solution with Shock by Direct Iteration*, Acta Mechanica, No.38, 1981 (Co-author – P. Niyogi).
- ◆ *Transonic Solution for Nieuwland Profiles Using Spline Interpolation*, AIAA Journal, Vol.19, No.4, 1981.
- ◆ *On a Method of Selection of Representative Patterns Using Binary Distance Matrix*, IEEE Transactions on SMC, Vol.10, No.5, 1980 (Co-authors – A. Som, A. K. Talukdar and A. K. Nath).
- ◆ *Direct Computation of Transonic Solution for Nieuwland Aerfoils*, Acta Mechanica, No.34, 1979 (Co-author – P. Niyogi).

(C) Working Papers

- ✚ *Need for the Measurement of Displeasure in Development Planning*, SSRN Working Paper No. 1946415, (SSRN Development Economics eJournal, Vol. 3, Issue 200, October 27, 2011)
- ✚ *An Interdisciplinary Study of Natural Disasters*, SSRN Working Paper No. 1933446
- ✚ *A Glimpse of Natural Disasters in West Bengal*, Working Paper No. 11, Microdis – JU, January 2011 (Co-author – I. Das Gupta, J. Barman, S. Kundu, D. Lohar)
- ✚ *Coping with Flood Risk: A Developing Country Perspective*, Working Paper No. 8, Microdis – JU, January 2011 (Co-author – I. Das Gupta, J. Barman)
- ✚ *Damage and Preparedness of Flood: A Case Study of Ghatal Block in the District of West Medinipur, West Bengal*, Working Paper No. 2, Microdis – JU, December 2010 (Co-author – I. Das Gupta, J. Barman, S. Kundu, D. Lohar)
- ✚ *Identification of Disaster-prone Areas using Vulnerability Index*, Working Paper No. 1, Microdis – JU, December 2010 (Co-author – I. Das Gupta)
- ✚ *Monte Carlo Simulation of Damage by Disaster: A Case Study in West Bengal*, SSRN Working Paper No. 1632337, (SSRN Agricultural and Natural Economics eJournal, Vol. 2, Issue 125, July 20, 2010 (Co-author – I. Das Gupta)
- ✚ *Generosity and Asymmetric Information*, SSRN Working Paper No. 1335079 (Behavioral and Experimental Finance (Editor's Choice) eJournal, Vol. 1, Issue 23, August 05, 2009)
- ✚ *Management of Wetlands of Non-Prominence from the Perspective of Benefit-Degradation Relation*, SSRN Working Paper No. 1448546, (SSRN Development Economics eJournal, Vol. 14, Issue 81, October 02, 2009)

- ✚ *Religious Behavior and Type II Risk*, SSRN Working Paper No. 1347026, February 23, 2009 (SSRN Religion and Culture eJournal, Forthcoming)
- ✚ *Quack: Their Role in Health Sector*, SSRN Working Paper No. 1292712 (SSRN Disability Income and Work Injury Compensation eJournal, Vol. 6, Issue 1, January 26, 2009)
- ✚ *Atmospheric Oxygen Accounting Within The Input-Output Framework*, Working Paper No. 60, Department of Economics, Jadavpur University, 1999 (Co-authors - S. Gupta, S. Sarkar and T. Jash)
- ✚ *Some Aspects of Cooperation in Marine Fishing in Sub-region: India, Bangladesh and Sri Lanka*, Working Paper No. 47, Department of Economics, Jadavpur University, 1997 (Co-authors - D. Chakraborty)
- ✚ *Planning for Japan's Energy Needs: A Risk Programming Approach*, Working Paper No. 45, Department of Economics, Jadavpur University, 1996 (Co-authors - G. Gupta and K. Fujime)

(D) Conference Papers

- ❖ *Damage and Preparedness of Flood*, Microdis – JU Symposium on Interdisciplinary Studies and Promotion of Research on Natural Disasters, Kolkata, India, January 14-15, 2011
- ❖ *Forecasting of Damage by Disaster*, International Conference on Quantitative Methods in Economics, Babes-Bolyai University, Cluj Napoca, Romania, November 12-13, 2010
- ❖ *Impact of Flood in Rural Areas*, Asian Symposium on Disaster Impact and Its Assessment in Asia, Hue, Vietnam, August 25-27, 2010
- ❖ *Management of Wetlands of Non-Prominence from the Perspective of Benefit-Degradation Relation*, Seventh Annual Partners' Meet of the IWMI-Tata Water Policy Research Program, Hyderabad, April 2008
- ❖ *Exploring the Market of Hindu Religion*, Third Annual Conference on Religion, Economics and Culture, Kansas City, USA, October 2004
- ❖ *Valuation of Wildlife: A Case Study*, International Conference on Challenges to the Social Sciences in Africa in the 21st Century, Makerere University, Uganda, October, 2000
- ❖ *An Overview of the Renewable Energy Policy in India*, Millennium Congress on Energy and Environment, Geneva International Conference Centre, Switzerland, January, 2000
- ❖ *The Emerging New Technology in Energy Sector: Experiment with Input-Output Technique*, International Conference on Global Energy Transitions, Budapest, Hungary, 1996
- ❖ *Economic Consequences of Information Technology in India*, Tenth National Convention of Production Engineers, Calcutta, 1996
- ❖ *Income Distribution and Optimal Choice of Renewable Energy Technologies*, 12th Annual International Conference of IAEE, New Delhi, India, 1990
- ❖ *Inter-fuel Substitution in Domestic Sector - with Special Reference to Non-commercial Energy Consumption in India*, International Conference on Integrated Energy Markets and Energy Systems, Copenhagen, Denmark, 1990
- ❖ *Energy Utilisation Pattern and its Need in Rural Areas of South Bengal*, Regional Conference of IAEE, Katmandu, Nepal, 1986

- ❖ *A g-Inverse Approach to Spline Interpolation and Its Application*, International Symposium on Spline Theory and Its Applications, Jabalpur, India, January 2-4, 1982
- ❖ *Pattern Recognition via Fuzzy Measure*, Conference on Electronics in Space, Kolkata, India, December 26-27, 1976