

# ANNUAL REPORT 2003-2004

Indira Gandhi Institute of Development Research

(A Deemed University rated A++ by NAAC)



**An Advanced Research Institute  
Established by the Reserve Bank of India**



# ANNUAL REPORT 2003-04



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(A Deemed University rated A++ by NAAC)

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# Preface

The Indira Gandhi Institute of Development Research (IGIDR), a deemed University rated A++ by the National Assessment and Accreditation Council (NAAC), continues to pursue its aim of conducting advanced research on national and global development-related issues. The Institute has further expanded its teaching activities and introduced the M.Sc. programme in Economics from August 2003.

The Institute's postgraduate programmes have helped students develop both empirical and theoretical skills to conduct research. In addition to the compulsory courses Microeconomics, Macroeconomics, Econometrics, Energy and Environment, Development Policy and Mathematics, several optional courses on various themes were also taught. M.Phil./Ph.D. theses submitted through the year focused on important areas of development research.

Research undertaken by faculty spanned several areas within the main objectives of the Institute. This report provides an overview of the work carried out during the year under the themes Monetary Policy, Fiscal Policy, Macroeconomics and Applied Econometrics; Finance, Foreign Direct Investment, Industry and International Trade; Poverty and Nutrition; Agriculture, Rural Development and Indigenous or Traditional Knowledge; Economics of Law and Institutions, Governance and Corruption; and Energy, Environment, Public Health and Education.

The year has seen several projects initiated, some ongoing and others completed. *Growing Rural-Urban Disparity* funded by National Institute of Rural Development and *Food & Nutritional Insecurity & Chronic Poverty* project funded by Indian Institute of Public Administration are some of those initiated. *Productivity Impacts of Green Revolution in Cereal Crops in India*, funded by the Foundation for Advanced Studies on International Development, *Achieving Food Security in a Cost Effective Way: Implications of Domestic and External Trade Liberalization* funded by International Food Policy

Research Institute are some that have been completed. *Maharashtra Human Development Action Research Study* funded by UNDP, *Maharashtra Development Report* funded by the Planning Commission, *Research on Indian Agricultural Markets & Policy* funded by the U.S. Department of Agriculture and *Socio-economic and Policy Implications of the Roles of Agriculture in Developing Countries* funded by FAO are some ongoing projects of the year 2003-04.

The association between IGIDR and China Development Institute initiated in the previous year gained further momentum with the Indo-China Economic Forum at Shenzhen, China, November 26-27, 2003. The next meeting of the forum is to be held at IGIDR in 2005.

IGIDR was the venue for a number of conferences, training programmes and seminars. His Excellency the President of India Dr. A. P. J. Abdul Kalam delivered the inaugural address and inaugurated *Energy, Environment and Sustainable Development: A symposium*, July 6-7, 2003. The Institute also hosted the *Sixth Annual Conference on Money and Finance in the Indian Economy* organised during March 25-27, 2004.

These initiatives should enable us to continue with our main areas of research while diversifying into areas like social development, human development and regional aspects.

We hope to move further ahead on the path towards fruitful research and teaching in the arena of development. The *Annual Report 2003-2004* is a summary of our activities through the year. It is intended to facilitate valuable communication with a wider academic community, policy makers and practitioners in the field.



R. Radhakrishna  
Director





# Organization of IGIDR

## Background, Aims and Objectives

The Indira Gandhi Institute of Development Research (IGIDR) is an advanced research institute established by the Reserve Bank of India in 1987, at Mumbai, for the study of national and global issues relating to economic development. The Institute is recognised as a Deemed University under Section 3 of the UGC Act. The primary objectives of the Institute are:

- to promote and conduct research on development from a broad inter-disciplinary perspective
- to serve as a centre for promoting cooperative endeavour and interaction between research scholars and institutions in India and abroad
- to undertake any other project or activity which the Institute may usefully carry out for the furtherance of development and social welfare.

## Board of Management

The present composition of the Board of Management is as follows:

- |   |          |
|---|----------|
| 1. Dr. Y.V. Reddy   | Chairman |
| Governor<br>Reserve Bank of India, Mumbai                     |          |
| 2. Dr. R. Radhakrishna  | Member   |
| Director ,<br>IGIDR, Mumbai                                   |          |
| 3. Dr. Suhas P. Sukhatme                                      | Member   |
| Chairman<br>Atomic Energy Regulatory Board<br>Mumbai          |          |
| 4. Prof. Amaresh Bagchi                                       | Member   |
| National Institute of<br>Public Finance and Policy, New Delhi |          |
| 5. Dr. D.M. Nachane   | Member   |
| Senior Professor, IGIDR                                       |          |
| 6. Dr. R. Nagaraj   | Member   |
| Associate Professor, IGIDR                                    |          |
| 7. Dr. K.L. Krishna   | Member   |
| Senior Consultant<br>ICRIER, New Delhi                        |          |
| 8. Dr. Vikas Chitre   | Member   |
| Director, Gokhale Institute of<br>Politics & Economics, Pune  |          |
| 9. Dr. Rakesh Mohan   | Member   |
| Dy. Governor<br>Reserve Bank of India, Mumbai                 |          |
| 10. Dr. L. K. Deshpande                                       | Member   |
| Economic Consultant, Mumbai                                   |          |

11. Mr. T. V. Subramanian, Secretary  
Registrar, IGIDR, Mumbai

## Past Members of the Board of Management

- Mr. R. N. Malhotra (Chairman)  
From inception to December 1990
- Mr. S. Venkitaramanan (Chairman)  
From December 1990 to December 1992
- Dr. C. Rangarajan  
Member from inception to March 1993  
Chairman from March 1993 to November 1997
- Dr. Bimal Jalan (Chairman)  
From November 1997 to September 2003
- Dr. Kirit Parikh  
From inception to July 2000
- Prof. Sukhamoy Chakravarty  
From inception to August 1990
- Prof. D. T. Lakdawala  
From inception to April 1992
- Prof. V. M. Dandekar  
From March 1993 to July 1995
- Dr. P. K. Iyengar  
From inception to December 1994
- Dr. M. S. Gore  
From inception to January 1996
- Dr. J. K. Ghosh  
From September 1991 to January 1996
- Dr. Kirit S. Yagnik  
From September 1991 to January 1996
- Prof. M. Gadgil  
From March 1993 to July 1994
- Mr. S. S. Tarapore  
From March 1993 to September 1996
- Dr. Ragbendra Jha  
From February 1998 to January 2000
- Dr. K.V. Ramaswamy  
From February 1998 to January 2000
- Dr. Mrinal Dutta Chaudhary  
From September 1991 to January 2002
- Dr. I. G. Patel  
From September 1992 to January 2002
- Dr. Jyoti Parikh  
From January 1996 to September 1998 and  
From February 2000 to January 2002
- Dr. Veena Mishra  
From February 2000 to January 2002
- Dr. M.H. Suryanarayana  
From 30-1-1996 to 29-1-1998 and  
From 1-2-2002 to 31-1-2004
- Dr. Susan Thomas  
From 1-2-2002 to 31-1-2004

# IGIDR at a Glance

Established in	1987
Affiliated to Mumbai University	1990
Granted Deemed University status by the Government of India	1995
Faculty staff strength (as on March 31, 2004)	35
Current number of students including part-time (as on March 31, 2004)	71
Ph.D. awarded to date	42
Ph.D. theses under examination	5
Continuing thesis work (including part-time students) (as on March 31, 2003)	40
P.G. Diploma awarded (from 1990 - 1995 batch)	61
M.Phil. awarded to date	20
M.Phil. thesis under examination	6
No. of M.Sc. students pursuing course work (Batch 2003)	18
No. of M.Phil./Ph.D. students pursuing course work (Batch 2002 & Batch 2003)	23
No. of projects completed to date	68
Ongoing projects	29
Books	46
Project reports	75
Reprints (journals and chapter in books)	574
Discussion papers (later DP has been replaced by WP)	147
Working papers	7

# Personnel

## **Director**

R. Radhakrishna

## **Senior Professor**

Dilip M. Nachane

## **Professor Emeritus**

Kirit S. Parikh

## **Professors**

Ashima Goyal

Shikha Jha

Veena Mishra

Manoj Panda

B. Sudhakara Reddy

Bibhas Saha

Vinod K. Sharma

P.V. Srinivasan

M.H. Suryanarayana

## **Associate Professors**

P.G. Babu

A. Ganesh-Kumar

R. Krishnan

R. Nagaraj

K.V. Ramaswamy

Jayati Sarkar

Subrata Sarkar

Ajay Shah (upto 31/12/03)

Rajendra R Vaidya

## **Assistant Professors**

Kausik Chaudhuri

Srijit Mishra

Vijay Laxmi Pandey

Susan Thomas

Sudhakar Yedla

## **Visiting Fellow, Consultant, etc.**

Barnita Bagchi, Visiting Research Associate (upto 3/2/2004)

Aldas Janaiah, Visiting Fellow

Praveen Kulshreshtha, Visiting Assistant Professor (upto 26/3/2004)

Anitha Ramanna, Visiting Research Associate (upto 11/3/2004)

Shovan Ray, Visiting Fellow/Consultant

Nirmal Sengupta, Visiting Professor

## **Registrar**

T.V. Subramanian

## **Assistant Administrative Officer**

Diana George

## **Chief Librarian**

G.K. Manjunath

## **Assistant Librarian**

S.M. Pujar

## **Chief Accountant**

Satish S. Doshi

## **Systems Analysts**

Lingaraj Panda

K.R.V. Seethapathi Rao

## **Private Secretary**

Patrick Lewis

## **Junior Administrative Officer**

Anita Mallick

## **Junior Accountant**

Ismail Surka

## **Secretaries**

T.S. Ananthi

Jayashree Borkar

Fabina D'Mello

Lavina D'souza

Martha Lobo

T.S. Mahesh Mohan

## **Administrative Assistants**

Nelson D'souza

Sanjay Uthale

Mukesh Verma

## **Accounts Assistants**

N. Gawde

K.S. Mahesh Kumar

## **Telephone Operator**

Pratima Shringarpure

## **Library Assistants**

Sangeetha Halijwale

Vinita Hattangadi

# IGIDR in Focus



Front View of the Guest House



Faculty Lounge:  
Drawing Inspiration from Stephen Hawking



The New Classroom

# Research Activities

IGIDR research focuses on a wide range of areas encompassing the field of development. An overview of some of the work carried out during the year is provided under the following themes: Monetary Policy, Fiscal Policy, Macroeconomics and Applied Econometrics; Finance, Foreign Direct Investment, Industry and International Trade; Poverty and Nutrition; Agriculture, Rural Development and Indigenous or Traditional Knowledge; Economics of Law and Institutions, Governance and Corruption; and Energy, Environment, Public Health and Education.

## **Monetary Policy, Fiscal Policy, Macroeconomics and Applied Econometrics**

Fundamental changes have occurred in the Indian financial system in the wake of the structural reforms launched in 1991. The process of financial transformation exerts significant influences on the empirical definition of money; demand for and supply of money and monetary policy transmission channels. This not only raises issues on the instability of the relationship between monetary aggregates and various aspects of the macro-economy but also brings into question the potency of monetary policy. If financial change is indeed invoking fundamental alternations along these lines, then they would be manifested most significantly in two aspects, viz., monetary policy lags and the strengths of the causal associations between money, output and prices. D.M. Nachane (Have monetary policy lags changed in the post-liberalisation period in India? In V. Pandit and K. Krishnamurty edited *Economic Policy Modelling for India*, Oxford University Press, New Delhi, 2004) explores these and related issues via some innovative spectral techniques, and tests several interesting theoretical hypotheses. The empirical results point to a considerably more challenging role for monetary policy in a liberalised scenario.

The management of the capital account in India's balance of payments has assumed importance in

recent years because of the economy's increasing integration with the global financial system. Systematic studies focussing on the capital account have not been forthcoming and the study by D.M. Nachane with Rajiv Ranjan (Analysis of the Capital Account in India's Balance of Payments, *Economic and Political Weekly*, vol. 39, no. 27, pp. 3031-3044, July 3, 2004) is an attempt in this direction. A moderate sized simultaneous equation model encompassing major constituents of the capital account and other macroeconomic sectors is estimated using annual data over the period 1970-71 to 1998-99. The model is then used to conduct several contrafactual simulations embracing alternative scenarios. The two major factors impinging on the Indian capital account are changes in world income and in non-interest domestic government expenditure. Monetary measures such as CRR or bank rate changes seem to have limited implications for the capital account, as does a proactive policy of real exchange rate targeting.

Subsequent to the implementation of the Basel Accord, considerable interest has been generated in a gamut of issues surrounding bank behaviour, especially, as it impinges on their capitalisation decisions. D.M. Nachane, in his joint work with Saibal Ghosh and Partha Ray (Behaviour of Bank Capital: Issues and Evidence from India, *Economic and Political Weekly*, vol. 39, no. 12, pp. 1291-1298, March 20, 2004), attempts to examine the determinants of bank capitalisation decisions for Indian public sector banks and in particular whether bank-specific factors override macroeconomic considerations in such decisions. Interesting conclusions emerge from this study. Firstly, several bank specific factors, especially the return on bank equity, are relevant for bank capital behaviour. Secondly, banks in India resort to retained earnings as a favoured method of capital augmentation. Finally, bank capitalisation responds positively to increased competition in the credit market.

The New Basel Accord lays great emphasis on risk ratings by external credit assessment institutions (ECAIs), since risk differentiation between counterparties is going to be based on such ratings. An important corollary of this feature is the likely relationship between such credit ratings and the capitalisation decisions of banks. D.M. Nachane jointly with Saibal Ghosh (Credit Rating and Bank Behaviour in India: Possible Implications of the New Basel Accord, *Singapore Economic Review*, vol. 49, no. 1, pp. 37-54, 2004) examines this issue in the context of Indian public sector banks with the aid of a multi-nominal logit model. Among the major conclusions converging from the empirical model are the importance of capital adequacy ratios for determining bank ratings, and the inescapable inference of higher capitalisation requirements for the Indian banking system as a whole, in the wake of the implementation of the New Accord.

Shikha Jha and Stephen Howes (State finances in India: Towards Fiscal Responsibility in Edgardo M. Favaro and Ashok K. Lahiri edited *Fiscal Policies and Sustainable Growth in India*, Oxford University Press, New Delhi, 2004) argue that the prospects for India's much-needed fiscal adjustment would be enhanced by the introduction of legislated fiscal policy rules (FPRs) at the levels of the state and central government. While institutional reforms such as the introduction of FPRs cannot substitute for the policies needed to realize fiscal adjustment, they can help catalyse and complement these reforms. The paper draws on international experience with FPRs in federations and the spectrum between a fully coordinated approach, at one extreme, at which the central government lays down the law for subnational fiscal policy, and a fully autonomous approach, at the other extreme, in which each sub-national entity lays down its own rules. India's best hope lies somewhere between these two extremes, with a

combination of state-level FPRs and coordinated national actions to promote fiscal responsibility. The paper also outlines some of the coordinating actions which the central government could take the lead in to supplement the states' own efforts.

Ashima Goyal (Puzzles in Indian Performance: Deficits without Disasters, in K Parikh and R Radhakrishna edited *India Development Report 2004*, Oxford University Press, forthcoming), explores puzzles in Indian growth performance such as the prolonged period of below potential growth in the late nineties. Uneven behaviour of investment was a major explanation. Risk aversion and adverse expectations prevented investment from rising. The high fiscal deficit is often blamed, but since sufficient domestic and foreign savings were available to compensate for government borrowing, the high fiscal deficit did not crowd out private investment or raise risk and interest rates. A sign of the absence of excess demand was that the fiscal deficit did not lead to a current account deficit. A reduction in real interest rates and a rise in growth is an effective way to reduce government deficits. It was the contrary movements in these two variables that were responsible for rising fiscal deficits in the late nineties. Macro policies need to be designed to lower volatility in key macroeconomic variables and market mechanisms need to be developed to lower the impact of volatility on firms and households. Such policies can stimulate growth, make it easier to undertake deep reform, and in turn reinforce growth, allowing it to reach potential. JEL Code: E63, F36, O11, O16, O53.

Fiscal Deficit (FD) is widely regarded as the kingpin of any stabilization package. FD is targeted for controlling inflation as it entails money financing. It is assumed, in monetarist approach, that money supply and inflation have high association due to the implicit assumption of neutrality of money. The concept of neutrality of money, which is an expression of the

monetarist's version of the Quantity Theory of Money, refers to the hypothesis that changes in the quantity of money affect the nominal, but not the real variables in the macroeconomic system. Kausik Chaudhuri in his joint work with Sunil Ashra and Saumen Chattopadhyay (Deficit, Money and Price: The Indian Experience, *Journal of Policy Modeling*, vol. 26, no. 3, April 2004) examines this for a developing economy, India, by analysing the relationship between money, output and price level. They find the presence of bi-directional causality between money and price level and furthermore that money is non-neutral. It is concluded that money is not exogenous in the Indian context in the long run and there is no systematic relationship between money, FD and/or high-powered money.

The relation between agriculture and industry is a much-debated issue in the discourse on the Indian economy. While a number of linkages can be envisaged, the general idea seems to be one where the agricultural performance is treated as exogenous to the economy, while industrial performance is endogenous. The issue then becomes one of exploring the extent to which industrial performance is affected by the exogenous agricultural output. Kausik Chaudhuri and R. Kavita Rao (Output Fluctuations in Indian Agriculture and Industry: A Reexamination, *Journal of Policy Modeling*, vol. 26, no. 2, pp. 223-237, February 2004) attempt to step back and explore whether agricultural performance in the long-run can be considered truly exogenous, and if not, what determines the performance of the real sectors in the Indian economy.

Tobacco products such as *bidi* and cigarette, both of which are smoked, cater to different kinds of households in India, and analyzing them separately may yield results useful for public policy. Rijo M. John (An Analysis of Household's Tobacco Consumption Decisions: Evidence from India, *IGIDR Working Paper* WP-2004-002)

analyzes the consumption patterns, socio-economic distribution and the household choice of a variety of tobacco products across rural and urban India. Use of a multinomial logit model helps look into choice behaviour of a household in deciding whether and which tobacco products to consume. Household level data from National Sample Survey in India for the year 1999-2000, which has information on 120,309 households, has been used. It suggests that most forms of tobacco consumption are higher among socially disadvantaged and low-income groups in the country. Variables such as education, sex ratio, alcohol and *paan* consumption were found to be significant factors determining tobacco consumption habits of Indian households. The effect of some of the factors on the probability of consumption differs for certain types of tobacco products, increasing some, and decreasing others. Addictive goods like alcohol and *paan* were found to complement tobacco consumption.

### **Finance, Foreign Direct Investment, Industry and International Trade**

Liberalization requires de- and re-regulation, since with internationalization, government controls become ineffective and with the use of new technologies the old self-regulation and governance structures break down. Ashima Goyal (Regulation and De-regulation of the Stock Market in India, presented at the conference on *Regulation, Deregulation and Re-regulation in Globalizing Asia*, National University of Singapore, Public Policy Programme, March 22-24, 2004) examines the functioning of the reformed Indian regulatory structure in the context of the basic principles of regulation, the special regulatory requirements of capital markets, and the features of Indian markets. The regulator's aim was to achieve international, best practices, and encourage market integrity through clear and self-enforcing rules of the game while encouraging the game itself. It contributed to

implementing world-class technology and processes in the markets. Following general principles allowed flexible response to arbitrage and change. Insider groups lost power as the liquidity advantage tipped in favour of automated systems, but there were imperfections in monitoring due to structural defects which are being addressed. Thinness of participation and in depth of securities may be overcome as markets revive with growth. JEL Code: G18

Panel unit root tests show that intranational purchasing power parity (PPP) cannot be rejected across major cities in Australia over the period from 1972:3 to 1999:1. Kausik Chaudhuri and J. Sheen (Purchasing Power Parity across States and Goods within Australia, *Economic Record*, forthcoming) show that the persistence of deviations in response to shocks is low, as measured by the estimated exact half-life between 5 and 10 quarters. This is much lower than results for similar tests done on US cities, and for international PPP tests. The food CPI is largely responsible for the fast convergent results for city CPIs. Intranational PPP was rejected for the floating exchange rate period from 1984 to 1991 when inflation was high and not specifically targeted by the central bank.

Ashima Goyal's (Foreign Investment in India: riding the wave, in H.S. Kehal edited *Foreign Investment in Developing Countries*, Palgrave Macmillan, UK, forthcoming) careful examination of the potential impact of different categories of foreign investments allows implications to be drawn for actions of governments and of investors, which have the potential to increase the amount and maximise welfare from such investment. Conceptual issues are emphasized, illustrated with the Indian experience, and some international comparisons made. In India, the pull factor attracting FDI has been intensifying. FDI has contributed to improvements in industrial processes, qualities

and standards. There is a consensus about FDI's desirability. Regulation changes have taken place at the central and state levels, with the objective of smoothing the entry process. Other inflows have shown more volatility, and their contribution has been less than potential, because macroeconomic policies maintained a large and volatile interest rate differential. As a result, investment fluctuated, and inflows fed a large forex reserves accumulation. A softening of interest rates and strong infrastructure spending has stimulated an industrial revival so that India seems to have succeeded in triggering a virtuous cycle in 2003, which spillovers from foreign inflows help make possible.

R. Nagaraj (Direct Investment in India in the 1990s: Trends and Issues, *Economic and Political Weekly*, vol. 38, no. 17, April 26, 2003) documents the trends in foreign direct investment in India in the 1990s, and compares them with those in China. Noting the data limitations, the study raises some issues on the effects of the recent investments on the domestic economy. Based on the analytical discussion and comparative experience, the study suggests a realistic foreign investment policy.

Since 1980-81, manufacturing sector output has grown at 7 per cent per year, with reforms making little difference to the trend in the 1990s. But the growth decelerated for the last seven years now, after peaking in 1995-96. Why? R. Nagaraj (Industrial Policy and Performance: Which Way Now? *Economic and Political Weekly*, vol. 38, no. 35, August 30, 2003) observes that the reforms have narrowly focused on the policy induced restrictions on supply, ignoring the demand constraint due to the cut in public infrastructure investment since the late 1980s, and indifferent agricultural performance in the 1990s. These have to be squarely addressed to revive industrial growth, and reap the benefits of the investment boom in the organised manufacturing in the last decade.



The focus of K.V. Ramaswamy's (Globalization, Industrial Restructuring and the China Impact: The Case of Indian Machinery and Consumer Electronics Industries, in Moriki Ohara edited *The Growing Importance of China and the Asian Machinery-related Industries: New Business Opportunities and Restructuring of Division of Labour*, Institute of Developing Economies, IDE-JETRO, Tokyo, Japan, September 2003) study was the impact of China on Indian machinery and consumer electronics industry. Analysis was first conducted at the macro level. The study estimated the share of main machinery and electronic products in the exports and imports of India and China. Features of bilateral trade and selected export markets of common interest to India and China received particular attention. Major Chinese machinery products are not found to be competing with Indian machinery products. In fact, machinery products are found to be a significant item of India's total imports from China with a share of 33 per cent. This suggests the use of China as a machinery and component sourcing market by the Indian manufacturing sector. At the micro level, two sets of companies were studied. The first set included representative companies in auto components, electrical machinery and heavy engineering and agricultural machinery. The second set studied a sample of two companies in the consumer electronics industry. The first company is a producer of final product (TVs) and the second a producer of components, namely, Color Picture Tubes (CPT). Several leading companies in the machinery sector were found to have initiated restructuring, business process reengineering and labour rationalization schemes. They were observed to have upgraded their technology through technical collaboration agreements and increased R&D spending. They expect to benefit from the greater emerging demand from China for quality products. Similarly, Indian firms understand that China could be a good source of

quality components at reasonable prices. Such complementary effects of China opening up are likely to become very important for the Indian machinery industry.

Anitha Ramanna (Interest Groups and Patent Reform in India, IGIDR Working Paper WP-2003-006, March 2004) analyses how India's patent reforms represent a shift in India's policy from one of enormous opposition to revising patent laws according to the WTO, to one of compliance with many aspects of TRIPs (Trade Related Intellectual Property Rights) agreement. Industry and civil society had a strong interest in blocking reforms on IPRs (Intellectual Property Rights), and initially played an important role in preventing reforms of India's patent law. India has recently changed its patent regime, led by important industry groups that revised their positions, and new NGOs which promoted reform. The preferences of actors and their changing interests are important factors in the reform process. Perceived benefits from the new regime partly explain the rise of a pro-reform constituency among industry and NGOs. Yet preference formation is complex and depends on interpretation of strategies by various actors. The Indian pharmaceutical case reflects the imperatives, both to forge ahead on patent reform while protecting the generic market, and restrict IPRs. NGOs that emerged to support patent reform also played a role in directing policy towards protecting traditional knowledge. The interests of actors do not always follow predictable paths, and are not fixed. Evaluating the preferences of actors rather than assuming them provides insights into the way policy processes are shaped.

A 1985 estimate shows that the value of medicines based on traditional knowledge sold in OECD countries was US\$ 43 billion. The custodians of the source knowledge did not receive any royalty. An interdisciplinary task

force set up by Govt of India in 2001 studied 762 patents in US Patent office (USPTO) database and found that about 360 patents could be categorized as based on Traditional Knowledge. With forty per cent of the pharmaceutical patents due to expire by 2006, biotech firms are trying to discover and develop new active ingredients from traditional medicine. Over 300 companies worldwide have programs of screening and drug development on traditional systems of medicine. Global market for herbal products is estimated at around US \$ 62 billion, and has been growing at a rate of 10-15 per cent per annum. The medicinal plant related trade in India alone is approximately Rs. 5.5 billion. Increasing commercial importance necessitates intellectual property protection for compensating the custodians of knowledge, both the people and the nation. Nirmal Sengupta (Traditional Knowledge and Intellectual Property Rights, invited paper, Seminar on Intellectual Property Rights, Sponsored by the Delegation of the European Commission to India, Bhutan, Nepal, Sri Lanka and the Maldives, Administrative Staff College of India, Hyderabad, November 17-18, 2003) introduces the new Intellectual Property Acts, Amendments and actions that India has introduced in recent years for accommodating traditional knowledge, and discusses the merits and limitations of these steps.

The term 'trade facilitation' is used for a set of tasks designed to reduce the transaction cost incurred in trade. Consistent with liberalisation and opening up of the economy in the early nineties, India has initiated trade facilitation at various fronts. Task Force on Indirect Taxes (Kelkar Committee) dealt with trade facilitation just as important as tariff reduction. Nirmal Sengupta jointly with Moana Bhagabati (*A Study of Trade Facilitation Measures*, Report submitted to Ministry of Commerce and Industries, Government of India; and Trade Facilitation, in Kirit Parikh and R Radhakrishna edited *India*

*Development Report 2004*, Oxford University Press, forthcoming) produce the first complete studies of trade facilitation in India.

### **Issues in Poverty and Nutrition**

The poverty situation in India today, is markedly different from what prevailed three decades ago. The spatial map and social base of poverty have significantly changed over time, and poverty is getting increasingly concentrated in a few geographical locations and among specific social groups. The poor are now more clearly identified among social groups in India and in specific geographic regions marked by lack of agricultural prosperity and areas of deficient investment in rural infrastructure. However, social exclusion persists in areas of relative prosperity. Poverty being an outcome of multiple deprivations, empowerment of the poor is considered a critical factor in accelerating poverty reduction. Presently, non-governmental organizations (NGOs), activists and donor agencies have a substantial presence in the field. They exert pressure on policy makers to involve the stakeholder in the project cycle of poverty alleviation programmes, activate the panchayats, promote institutions like self-help groups and user groups, and mobilize the poor for collective action. However, the route to poverty reduction differs across states. The experiences have been different in different situations and over time. As editors and contributors of a volume in a handbook series, R. Radhakrishna and Shovan Ray (*Poverty in India*, Oxford University Press, forthcoming) highlight these processes as well as various dimensions of poverty such as chronic poverty and malnutrition among sections of the society. The book describes the important legislative and other initiatives taken by the government for supporting the poor and vulnerable among them and for improving their status. Three broad phases in poverty reduction have been defined; for strengthening the base of the poor, their human development and for

empowerment of the vulnerable groups. Some other issues discussed in the book are trends in the social sector expenditures, credit flows to the poor and outlining the concept, strategies and processes of social mobilisation and empowerment aimed at sustainable poverty alleviation in rural India. In a paper based on the book, R. Radhakrishna, V.M. Rao and Shovan Ray (Beyond Quantification of Poverty: Emerging Issues in Poverty Reduction, *The Indian Journal of Labour Economics*, vol. 47, no. 2, pp. 323-348, April-June 2004) argue the need for a perspective viewing the poor as a part of a wider society with links and relationships affecting the economic conditions and development status of the poor. These links and relationships include poverty generation and poverty sustaining processes and structures besides poverty reduction strategies. The changing poverty scenario is shaped by this broader set of factors.

R. Radhakrishna and Shovan Ray (Poverty in India: Dimensions and Character in Kirit Parikh and R. Radhakrishna edited *India Development Report 2004*, Oxford University Press, forthcoming) suggest that the proportion of population below the poverty line has remained constant till the mid-1970s, but registered a decline thereafter and reached 26 per cent in 1999-01. The poverty reduction since the mid-70's can be attributed to higher economic growth, improvement in real wages and proliferation of poverty alleviation programmes. Most states and all socio-economic groups have experienced poverty reduction between 1993-94 and 1999-2000. However, due to uneven poverty reduction across states and social groups, the poor got concentrated in less developed states and among a few vulnerable social groups. The growing share of less developed states in All India poverty is partly due to sluggish growth and partly due to lack of demographic transition. Urban poverty reduced faster than rural poverty because of faster

economic growth in urban areas, even though inter-quintile urban inequality has been on the rise. Poverty is also the outcome of social exclusion as it is disproportionately high among Scheduled Castes and Tribes. Among social groups, reduction in poverty among the tribals is slower. However, the North-East region of India provides a different perspective - despite large tribal habitations, the incidence and severity of poverty among the tribal groups are remarkably low. India's performance in the reduction of malnutrition is the least impressive. The incidence of child malnutrition is higher than that of poverty, with the highest incidence in the poorest states. But the lowest is not in the richest, but in middle-income states with progressive, social and food security policies. The nutritional outcomes are better in the North-Eastern states.

Combining National Sample Survey consumer expenditure distribution with that of National Family Health Survey, R. Radhakrishna, K. Hanumantha Rao, C. Ravi and B. Sambhi Reddy ('Chronic Poverty and Malnutrition in India in the Nineties', Working Paper 11, Chronic Poverty Research Centre, IIPA; also published in *Economic and Political Weekly*, vol. 39, no. 28, July 12, 2004) estimate chronic poverty, those staying below poverty line for a long time, by taking stunted child in a poor household as a proxy. About 15 per cent of the rural households and 14 per cent of the urban households suffer from chronic poverty. The chronic poor households constitute about 55 per cent of rural poor households and 58 per cent of the urban poor households indicating that about 45 per cent of households periodically move in and out of poverty depending on various types of shocks they are exposed to. Chronic poverty level is high in Bihar (25.3 per cent in rural and 19.3 per cent in urban), Orissa (24.4 per cent in rural and 22.2 per cent in urban), Madhya Pradesh (21.4 per cent in rural and 22.2 per cent in urban) and Uttar Pradesh (19.6 per cent in rural and 19.4

per cent in urban). Rural areas of Assam and West Bengal also have high incidence of chronic poverty. Chronic poverty has become residual in Jammu and Kashmir, Punjab, Haryana, Himachal Pradesh and Kerala. In general, the Northern, Western and Southern states have low to moderate incidence of chronic poverty. Notably, Kerala with lower per capita income could achieve the low incidence achieved by Punjab and what is more, it out performed other Northern and Western states. Eastern region (Bihar, Orissa, West Bengal, Assam) and Central region (Madhya Pradesh and Uttar Pradesh) have higher incidence of chronic poverty. These are also the states with high concentration of Scheduled Castes and Scheduled Tribes. It must be realised that chronic poverty is also a social phenomenon.

R. Radhakrishna and C. Ravi (Measurement of changes in Economic Welfare in India: 1970-2001, *Journal of Quantitative Economics*, forthcoming) provide time series estimates of measures of economic welfare, inequality, decile class specific true cost of living index and poverty measures based on 20 rounds of National Sample Survey for the period 1970-2001. They have estimated piece-wise LES for very poor, moderately poor, non-poor low and non-poor high expenditure groups for rural as well as urban areas. Money metric utility is derived for deciles and social welfare index is constructed by aggregating money metric utility of the deciles. Using social welfare index as well as real per capita consumption, they analyse changes in economic welfare. The welfare index reveals that in the 1990s there had been a slow down in the welfare improvement in rural areas and an acceleration of the welfare improvement in urban areas. The welfare improvements were marked with sizeable year-to-year variations. In the urban areas, with faster urban economic growth, urban poverty declined faster, but urban inequality and rural-urban disparity worsened. All the poverty measures – head count index, poverty gap index

and Foster-Greer-Thorbecke index – draw a similar picture: decline in poverty over the last three decades with fluctuations of poverty during the 1990s, the period for which more or less continuous time series data are available. In terms of direction of change, the trends as well as fluctuations are similar in rural and urban areas, with some difference in magnitude. The rural-urban gap in poverty reduction widened in the 1990s. Analysing welfare effects of commodity prices, the paper shows that an increase in cereal prices would hurt the lowest decile the most and aggravate the inequality. For bottom deciles, non-cereal food price is as important as that of cereals in rural areas, while it is more important than cereals in urban areas. The drop in welfare due to rise in food price is substantially more than that of non-food price. The analysis reveals that if the average inflation rate crosses 6-7 per cent, the inflation rate will be biased against the bottom deciles. This could be attributed to the fact that high inflation rates are generally associated with high rates of cereal inflation.

R. Radhakrishna, S. Indrakant and C. Ravi (Changing Food Preferences, Nutritional Intake, and Nutritional Status in Aditya Bhattacharjee and Sugata Marjit edited *Globalization and the Developing Economies Theory and Evidence*, Centre for Studies in Social Sciences and Manohar, 2004) demonstrate that over the past three decades consumption trends showed weak association between economic growth and food consumption. In the 1980's, despite very satisfactory growth and decline in real cereal price, per capita consumption of cereals, cheap source of food energy, declined. There had been a marginal increase in the per capita real expenditure on food as well as the per capita calorie intake. Changes in consumer taste have brought a shift in consumption patterns from cereals to non-cereal food and non-food items, and from coarse to fine cereals across all income groups. This has substantially weakened the

relationship between income and calorie consumption. In the 1990s, the rise in real food prices further exacerbated the trend; the per capita real expenditure on food as well as cereals declined. In the case of bottom 30 per cent of the population, the per capita expenditure on cereals, which was already deficient, declined in the 1990s and per capita food energy intake levelled off at around 1700 k.cal/day much before reaching the nutritional norm. The increasing diversification of the consumption basket of the poor and rising food prices will pose a major challenge for improving the food security of the poor.

Analysing the trends in malnutrition over the past two decades R. Radhakrishna and C. Ravi (Malnutrition In India: Trends and Determinants, *Economic Political Weekly*, vol. 39, no. 7, February 14, 2004; also reprinted in S. Irudaya Rajan and K.S. James edited, *Demographic Change, Health Inequality and Human Development in India*, Centre for Economic and Social Studies, Hyderabad) show that improvement in nutritional status has not kept pace with the reduction in income poverty. The incidence of child malnutrition is greater than poverty. The current levels of child malnutrition and adult chronic energy deficiency are unacceptably high - about half of the pre-school children suffer from malnutrition and close to 40 per cent of the adults suffer from chronic energy deficiency. What is more disquieting, about one fourth of the children suffer from severe malnutrition and hence are likely to end as functionally impaired persons in their adulthood. Recent estimates show that about 40 per cent of malnourished children in the world are in India, although India accounts for less than 20 per cent of the children in the world. Malnutrition levels are uneven across states, with the highest incidence in the poorest states. Some middle income states such as Kerala and Tamil Nadu with progressive social and food security

policies have comparatively better nutritional achievements than higher income states like Maharashtra and Gujarat. North-Eastern states are comparatively better performing states and some of them have even out-performed Kerala. The risk of child malnutrition decreases with increased household standard of living, mother's nutritional status, mother's education, number of antenatal visits and consumption of leafy vegetables; and increases with household size and birth order. Child malnutrition is particularly high among poor households where mothers have poor nutritional levels. Mother's nutritional level in turn depends on her childhood nutritional status. Concerted efforts are needed to break the vicious circle of mother-child-mother malnutrition among the poor. Improving the incomes of the poor as well as expanding the supply of environmental and health services is a long run solution for the reduction of malnutrition. It has to be complemented in the short run with direct nutrition intervention.

A primary objective of construction of poverty indices is to address issues of intertemporal or intercommunity comparison of extent of poverty. Such comparisons usually involve changes in relative prices. Adjustment in poverty line or nominal income is needed to take into account differences in cost of living. Manoj Panda and Kali Rath (Price Changes and Some Underlying Aspects of Measurement of Poverty, *Journal of Quantitative Economics*, January 2004) deal with effects of price changes on measurement of poverty. Surprisingly, this aspect has not been dealt with in the vast poverty literature. The paper shows that when prices change, some common updating procedures of poverty line may wrongly identify the poor and the non-poor because of the failure to take into account substitution effects on consumers. Moreover, poverty indices, in spite of their axiomatic foundations, might not perform satisfactorily at the aggregation stage. The paper illustrates situations, when prices and nominal

incomes change, a higher nutritional intake or an increase in commodity consumption of the poor can be associated with higher poverty gaps and a higher poverty index of the society. A positive relationship of this kind is quite counter-intuitive in the context of poverty measurement. This is caused by the adjustment of poverty line and/or income of one situation by the prices of the other for the purpose of comparison.

Nearly three-quarters of about 260 million poor in India live in rural areas where agriculture is the main source of livelihood. Manoj Panda (Role of Agriculture in the Poverty Reduction Process in India, *Role of Agriculture*, Project sponsored by the Food and Agricultural Organization, Rome) makes a reassessment of the role of agriculture on the poverty reduction process in India using both cross section and time series data for major states in India. He emphasizes the important role of agriculture in determining changes in magnitude of poverty through channels like income rise, productivity growth, food prices and wage rate. The major findings are: (i) Irrigation is the most critical input for land productivity gains and its effect on poverty reduction is clearly seen through an examination of cross section data across all social groups and in all states. (ii) The poor do benefit from growth by income and employment expansion that accompanies the growth process (say, multiple cropping). However, real wage effect and relative food price effects have been found to be strong and robust in India and their quantitative effects dominate the direct growth effect. (iii) In the year 1999-2000, three fourths of India's poor could be found in the seven states in the Northern, Eastern and Central parts of India where 'green revolution' has touched marginally. In addition, poverty is highly prevalent among the Scheduled Tribes and the Scheduled Castes indicating that they have remained socially excluded for centuries. Regional and social group focus is thus needed in the near future to redesign the poverty reduction strategy in India.

Manoj Panda (Economic Growth and Poverty during 1990s: Did Orissa Benefit from the Reforms? in R.K. Panda edited *Reviving Orissa Economy: Opportunities and Areas of Action*, A.P.H. Publishing Corporation, New Delhi) attempts to examine the performance of the economy of Orissa in the spheres of growth and poverty after initiation of economic reforms in India. He points out that Orissa's economy registered a deceleration during 1990s in contrast to acceleration at the national level. While incidence of poverty fell by about 10 percentage points at the national level, it fell by only 2 percentage points in Orissa. Thus Orissa did not benefit either on growth front or on poverty front after economic reforms. The paper also reveals large regional variations in magnitudes of poverty within Orissa. Examining poverty by social groups, it finds that poverty is highly concentrated among the ST and SC sections of the population who account for about two-third of the poor.

The United Nations adopted the Declaration on the Right to Development in 1986 and subsequently reiterated it in other world summits. The right to development is now seen as an internationally accepted human right. Its recognition as an entitlement upon society implies that the state must take measures to satisfy this right and design its economic development policies in such a way that the various components of the right to development move forward. A. Ganesh-Kumar and Manoj Panda (Right to Development: Some Quantitative Dimensions for India, presented at *Poverty Reduction Strategy as Implementation of the Right to Development*, Centre For Development & Human Rights, New Delhi and IGIDR, Mumbai, November 19, 2003) aim at a preliminary examination of some macro level quantitative dimensions of the right to development in India. They specifically attempt

to quantify the sectoral growth pattern and the associated resource requirements for achieving a specified vector of minimum consumption basket for all sections of the society implied by right to development. Towards this end, the authors develop a prototype operational planning model.

Statistical information on income generation and distribution at the regional level is quite important for economic policy formulation and evaluation. While some progress has been made with regard to estimation of district domestic products in different states, there is scope for generating (i) representative estimates based on direct district-specific information; and (ii) comparable estimates by uniform methods across states. Comparable estimates of domestic products across states are important for regular monitoring of poverty at the regional level and generating reasonable estimates of poverty through poverty mapping. M.H. Suryanarayana (Regional Estimates of Income Generation and Consumption Distribution: Maharashtra, invited paper for the annual seminar by *Indian Association for Research in National Income and Wealth*) discusses methodological issues with reference to representativeness and comparability of estimates of income generation, consumption distribution and incidence of poverty at the regional level, district in particular, in India; and provides an empirical illustration for the state of Maharashtra.

### **Agriculture, Rural Development and Indigenous or Traditional Knowledge**

Shikha Jha and P.V. Srinivasan (Achieving Food Security in a Cost Effective way: Implications of Domestic Deregulation and Reform under Liberalized Trade, *MTID Discussion Paper 67*, Markets, Trade and Institutions Division, International Food Policy Research Institute, Washington D.C., 2004) evaluate the domestic and international trade and marketing policies in

India and analyse the effects of deregulating domestic markets and liberalizing external trade in foodgrains. They show that greater role for private sector in foodgrain marketing leads to budgetary savings of the central government and lower burden of storage. Spatial equilibrium model is used to quantify the benefits obtained from relaxing restrictions on internal movement of foodgrains by the private traders and through reduction in transportation costs. External trade liberalization provides opportunities for reaping greater spatial arbitrage benefits. There is a need, however, to develop the necessary marketing and port infrastructure and also address the issue of managing price risk.

P.V. Srinivasan (Managing price volatility in an open economy environment: The case of edible oils and oilseeds in India, *MTID Discussion Paper 69*, Markets, Trade and Institutions Division, International Food Policy Research Institute, Washington D.C., 2004) examines the impact of alternative price stabilization policies for edible oils and oilseeds in India on farmers growing oilseeds, consumers of edible oils and the processing sector with the help of a multi-market equilibrium dynamic simulation model. Some of the results: higher import tariffs on edible oils lead to more variable domestic prices. This indicates that a fixed level of tariff even at a higher level is not useful in stabilizing oil prices. A system of variable levies, which adjust to international price and domestic supply situation, would be required. Tariff protection on oils mainly benefits the processing sector and the benefits to oilseed growers are relatively smaller. Tariff protection to growers by increasing tariffs on oilseed imports helps the producers of oilseeds, but at the cost of consumers and the processing sector. The distribution of benefits to different agents varies with the different alternative mechanisms used for price stabilization. As the bound rates of tariffs under WTO are fixed quite high for all edible oils with

the exception of soy oil, there is enough room to adjust import duties for price stabilization purposes. The maximum import tariff rate required to stabilise prices within a reasonable price band is as low as 25 per cent.

Vijay Laxmi Pandey and B.K. Singh (Factors Share in Gross Farm Income: An Empirical Investigation in Hazaribag District of Jharkhand State” *Agricultural Economics Research Review*, vol. 16, no. 1, 2003) examine the nature of distributive share in agricultural income of Gola Block. The nature of distributive share has been examined using the production function analysis for four broad categories of factors, viz., land, human labour, bullock labour, and capital. The results show that the size of farm, i.e. land area under cultivation dominates the production strategy and income distribution in all size groups of farms. Relatively high capital share in the gross income on medium and large size farms without affecting the absolute share of labour much indicates the positive feature of technical progress. Further, the planners and policy makers would be required to evolve suitable strategy for augmenting the use of capital inputs on the relatively less progressive small size farms. Since the size of farms accounts for a major part of the farm income distribution, it is responsible for unequal distribution of income among farming communities. Hence, in order to hasten the process of reducing the inequalities in the distribution of farm income, appropriate land reform measures and their implementations are necessary.

Vijay Laxmi Pandey, with assistance from Swarna Lata (Environmental Impact of Improved Technologies: Farm Level Survey and Farmers’ Perception on Zero Tillage, *Roles of Agriculture*, Project sponsored by the Food and Agricultural Organization, Rome, December 2003) looks into zero tillage (ZT) to investigate the environmental impact of improved technologies in two states

of Indo-gangetic Plains of India, one with a very high level of agricultural intensification, i.e. Haryana and other at a low level of agricultural intensification, Bihar. Zero tillage is used to plant the wheat seeds directly into the field after the harvesting of paddy without any land preparation. A zero seed drill is used for this purpose. In the conventional method, the field has to be ploughed 4-6 times after harvesting paddy and before planting wheat. Data show that both intensive and less-intensive agriculture experience an increase in yield of wheat and savings in input use by following zero tillage. But it is observed to be higher by 3 per cent for less-intensive agriculture (Bihar) than the intensive agriculture (Haryana). Further, the net savings in input use is more in less-intensive agriculture (Rs 701/ha more in Bihar). This explicitly shows that there is scope for widespread propagation of zero tillage in the coming years in less intensive agricultural areas also. There is willingness to adopt the zero tillage in all these areas. From the environmental point of view, zero tillage saves emission of green house gases like carbon dioxide and nitrous oxide. The amount of water used for agriculture also reduces.

Aldas Janaiah (The Productivity Impact of Green Revolution in Coarse Cereals in India, Funded by FASID, Japan) analysed the growth performance by various yield regimes and estimated total factor productivity (TFP) growth for the selected coarse cereals, maize, sorghum and pearl millet in India. The time-series and desegregate data required for the study were published sources of Ministry of Agriculture. The TFP was computed using the Tornqvist-Theil index method. The overall findings suggest that GR technologies have contributed considerably to output growth of coarse cereals, although small in absolute terms, over the past three decades. The contribution of technological progress was considerable higher in those regions where MVs were adopted under irrigated/semi-irrigated



conditions. This TFP's contribution could further be seen more visibly if some life-irrigation and policy support are also provided to the coarse cereals.

The focus of Aldas Janaiah's (*Assessing the Poverty Impacts of Public Irrigation Expenditures in Vietnam*, joint project funded by World Bank and Asian Development Bank) study is how various policy interventions in irrigation: rehabilitated infrastructure- An Tranch scheme in Northern region, improved management-Dau Tieng scheme in Central region or combination of both-Song Chu scheme in Southern region of China have had an impact at the micro-level (household level), particularly how they affect the poor. Both qualitative and quantitative assessments were carried out. Findings from the qualitative assessment indicate that the interventions have substantially improved the availability of irrigation water, which in turn reduced production risks, improved farm income, reduced labour cost for pumping of water, and reduced poverty under selected schemes. The quantitative analysis of survey data suggests that the interventions under the selected schemes have significantly improved the availability of irrigation water, which in turn increased rice yield and farm profits; reduced unit cost of production and production uncertainties, improved household income, and reduced rural poverty. A combined effect (Song Chu scheme) is more efficient in terms of additional output generated and on food consumption, but rehabilitation of infrastructure independently (An Tranch scheme) seems to be doing better than the combined effect in poverty alleviation.

Nirmal Sengupta's (*Economic Studies Of Indigenous & Traditional Knowledge*, Indian Economic Association Trust for Research and Development) forthcoming edited volume is a compilation of some economic studies of traditional and indigenous knowledge in India.

The first three articles are studies of communities: indigenous people, marine fisheries and artisans, using three different approaches: ecological, political economic and anthropological. The next four articles on housing, irrigation, arsenic mitigation and homestead gardens show the continued importance of indigenous and traditional knowledge and techniques in meeting basic needs of people. Three articles that address different dimensions of global policies on indigenous medicinal and genetic knowledge. The last four articles deal with some issues in industry and commerce: innovation, production, marketing and export activities of ayurvedic medicine, natural dyes, leather and handicrafts.

### **Economics of Law and Institutions, Governance and Corruption**

Nirmal Sengupta (The New Institutional Economics – Its perimeters and promises, Keynote paper, *Annual Conference of Indian Economic Association*, December 2003) introduces features that are characteristics of NIE studies, 'the key good ideas' associated with the branch, and major criticisms of the NIE. In particular, he addresses the doubt that exists on the relevance of NIE theory in studying major problems of developing countries like India. Author's assessment, supported by some examples, is positive.

Nirmal Sengupta (Common Pool Resources and Indian Legal System, in *Terracotta Reader: A Market Approach to the Environment*, in press; revised version of an unpublished invited paper presented at the *Conference on Law and Economics*, Indian Statistical Institute, New Delhi, January 11-13, 1996) traces the historical evolution of legal and administrative provisions pertaining to common pool resources in India. He starts with colonial land settlement, later inclusion of customary rights, regulations on use and provider role for some, followed by recent user-group participation models and making

development of CPRs as the tasks of the Panchayats. This paper analyses the economic incentives of user participation for CPR management under the complex Indian legal set up.

Water resource development programmes are shaped after passing through many different stages: property right considerations, planning and designing process, project approval, mobilisation of finance, implementation, operations, cost recovery and conflict resolution. The institutional set up at every stage acts for and against specific orientations. All different options may not find level playing field in an institutional set up. In its absence, choices are made not necessarily on the basis of merits and demerits, but often as institutional preferences. Nirmal Sengupta (Institutions Against Change, in Ganesh Shivakoti, Douglas Vermillion, Wai Fung Lam, Elinor Ostrom, Ujjwal Pradhan and Robert Yoder edited *Asian Irrigation in Transition: Responding to Challenges*, Sage Publications in association with International Water Management Institute and Asian Institute of Technology, forthcoming) shows that quite often, the existing institutional structure, property rules and governance systems are not capable of directing development towards technically and economically superior options. The paper identifies the weak links in the institutional system where reforms need to be initiated.

Research on commons is one such area where facts from field have contributed to modification of economic theory and models. Collective action theories in commons grew as a field-based method. Nirmal Sengupta (CPR Institutions: Game Theory Constructs And Empirical Relevance, Seminar on *Conversations (2) between Economists and Anthropologists*, organized by Centre for South Asia Studies, University of California, Berkeley. Goa, August 1-3, 2003) describes the development of game

modeling of collective action in commons, suggesting why some matters were accepted, some rejected, and some others are still awaited. The first section is about the emergence of CPR game theories of commons as a field-based method. The second section lists a few questions raised in the field indicating the need for modifying game model in specific direction. The third and final section introduces certain recent efforts of theorizing in these directions. This is the second dialogue between economists and anthropologists organised after about ten years by the UC, Berkeley, and will be published as a book.

The Jharkhand movement is the oldest of the autonomy movements in India. Recently, after it has resulted in the formation of a separate state by the name, considerable interest has been generated about the course of the movement. Nirmal Sengupta's earlier work on 'Reappraising Tribal Movements' May-June 1988 is one of the significant articles written during the movement. This work is further echoed in his recent works (Jharkhand Movement and Tribal Identity, in R. D. Munda and S. Bosu Mullick edited *Indigenous Peoples Struggle for Autonomy in India*, International Workgroup on Indigenous Affairs Document No. 108, Copenhagen, pp. 333-347, 2003; and Development, Identity, Development of Identity, in Rajiv Balakrishnan edited *Jharkhand Matters: Essays in Ethnicity, Regionalism and Development*, Konark publisher, New Delhi, 2004).

Vinod K Sharma's (*Maharashtra State Development Report*, Planning Commission) edited study reviews the reasons for the state's success and failure on various fronts over the last few decades, covering all the major sectors of economic growth including agriculture, industry and services. The report highlights the performance of the state in terms of growth in employment, availability of infrastructure,

alleviation of poverty, tackling the fiscal situation, various investment schemes and social indicators. It is revealed that the state occupies a significant position in the manufacturing sector and the sectoral composition of its GDP has been following the national trend of services-led growth. The development programmes of the state government have not yielded the desired results due to deficiencies in overall governance. The report reflects the growth potential of the state in the medium term as compared to that of the other regions in the country and the world. It suggests the need for better cohesion among various policy objectives and urgent ameliorative measures for a substantial improvement in the social infrastructure, equity and human development. Further, it recommends the participation of the private sector in infrastructure development and sincere efforts from the government to prevent the widening of rural-urban, regional, gender, tribe, caste, and community disparities. The government should promote the ownership of assets by local communities, improve the efficiency and transparency of its functioning and service delivery and plan resource flows to curb regional and class disparity. An integrated planning approach focusing on sustainable economic growth, community participation and ecological conservation is required for restoring the image of Maharashtra as the most leading state in India. Improved co-ordination of all stakeholders and encouragement of people's participation are required for an economically viable, socially acceptable and environmentally sustainable growth.

Ashima Goyal (Getting Water from Public Private Partnerships, in S Morris edited *India Infrastructure Report 2004, Bringing about value for money in infrastructure*, 3iNetwork and Oxford University Press, New Delhi) explores contractual types of public private partnerships that would deliver maximum value in the Indian

context. Under incomplete contracts, social institutions tailored to the specific context can contribute to effective governance. She first draws out some implications of contract theory, then examines recent international experience with PPP in water supply, and finally draws upon all these to illustrate how services from public utilities, specifically from Mumbai's water supply, can be improved, with cost saving through the reduction of waste. While assets should continue to be in public hands, well-designed service contracts would improve coverage, consumer orientation and low level accountability, which is missing in public provision. Reduce wastage, encourage competition and entrepreneurship; achieve financial viability; and develop a thick network of low-risk credit-customers for banks and financial institutions, the study suggests. This would, however, require support from price reform, independent regulators, and user groups. Citizen groups can use voting power to motivate politicians to shift from direct subsidies and hidden costs to the delivery of quality services. Some specific issues in water supply reform are: easy availability of quantity rationing in public water supply perpetuates low quality and distorted prices, heavy use of non-transparent taxes and fixed charges lowers efficiency and welfare. It follows that re-balancing between fixed and volume charges would contribute to welfare and improve quality. JEL Code: J16

Bibhas Saha and Trivikraman Thampy (Extractive Bribe and Default in Subsidized Credit Programs, *Journal of Economic Behavior and Organization*, forthcoming) present a dynamic model of subsidized credit provision to examine how asymmetric information exacerbates inefficiency caused by corruption. Though designed to empower the underprivileged, the fate of such credit programs largely depends on the efficiency of the credit delivery system. Corruption often erodes this

efficiency. Nevertheless, when a corrupt loan official and a borrower interact with symmetric information, credit terms can be so designed that corruption will affect only the size of the surplus, but not repayment. With private information on the borrower's productivity, this result changes. The corrupt loan official may induce the low productivity borrower to default, mainly because of high revelation costs. The government can improve the repayment rate, but will have to under-provide the first period loan. On the other hand, it can permit default by the low productivity borrower, and maintain a higher credit level. The second option may sometimes be preferred. This inefficient outcome is caused by two factors - informational ratchet effects and countervailing incentives, which are commonly present in many agency relationships.

Jayesh Kumar (Parliamentary Elections and Political Parties, *Journal of the Indian School of Political Economy*, vol. 15, no. 3, pp. 633-646, July-Sept 2003.) finds the probability of the incumbent party's winning the election from the same constituency. The study estimates the probability of winning by ruling party irrespective of whether that party forms a coalition during election or was a member of the last government at the Centre. The study estimates the average probability of winning for all India's General elections from 1971 to 1999 under given electoral system, using a panel data Binary Choice Model.

### **Energy, Environment, Public Health and Education**

Energy efficiency is widely viewed as an important element of economic and environmental policy. How much one will actually benefit from energy efficiency depends on how one approaches the issue. Also, the success in energy efficiency improvements depends on how well various actors help each other, and how well their actions are integrated. B. Sudhakara Reddy jointly with Gaudenz B.

Assenza, Dora Assenza, and Franziska Hasselmann (Fundamentals of Energy Efficiency, in B. Sudhakara Reddy and Gaudenz B. Assenza edited *Energy Efficiency and Climate Change: Conserving Power for a Sustainable Future*, Earth scan Publishers, London, forthcoming 2005; and The Benefits and Drawbacks of Energy Efficiency, in B. Sudhakara Reddy and Gaudenz B. Assenza edited *Energy Efficiency and Climate Change: Conserving Power for a Sustainable Future*, Earth scan Publishers, London, forthcoming 2005) explains the nature and purpose of energy efficiency as well as its relation to various actors of the society and the environment. The studies present a short overview of the current debate on energy efficiency in which the energy efficiency gap and the rebound effect are important issues. In his work, Reddy discusses the methods of assessing the advantages and drawbacks of energy efficient technologies as well as projects. It is a proven fact that in specific situations and well-chosen energy efficiency proposals, benefits significantly outweigh drawbacks. However, it is important to mention the perceived and actual disadvantages and complications. Both these aspects are discussed from the perspective of the governments, business establishments, and households. As the scope of investigation is a global one, and the resulting drawbacks as well as benefits emerge out of a specific situation, this work should be understood as giving directions of thought rather than empirical evidence.

It is important for Energy efficient technologies to attain the status of commercialised technologies to make a significant impact on energy systems. Without commercial status, energy efficient technologies neither gain the customer's confidence, nor benefit from the dynamism and innovation of the private economy. B.Sudhakara Reddy, in his joint work with P. Balachandra (An Approach To Sustainable Diffusion Of Energy Efficient Technologies, in

B. Sudhakara Reddy and Gaudenz B. Assenza edited *Energy Efficiency and Climate Change: Conserving Power for a Sustainable Future*, Earth scan Publishers, London, forthcoming 2005), attempts to design an integrated diffusion process which is commercially viable and involving multiple stakeholders with a proper enabling environment through government policies, transformed markets, and information services. According to the author, the impetus given by such a diffusion process can lead to successful commercialisation of energy efficient technologies.

B. Sudhakara Reddy (Dynamics of Technology Shifts in India's Household Sector – Implications for Clean Development Mechanism, presented at the *Second Asian Energy Conference*, August 25-26, 2003, Hongkong) attempts to analyse the dynamics of energy end-use technology shifts in the household sector in India. The technology shifts are categorised as naturally occurring shifts (with increasing household incomes and availability of energy carriers) and policy induced shifts (by creating favourable environment). Initially, the households' energy usage pattern, types of energy carriers and the technologies in use are analysed using the data from the National Sample Survey (1999-2000). Energy consumption is disaggregated according to end-use activity by income group for rural and urban households. It is observed that large variations in energy use exist across different sections of households – urban/rural, low/high income groups, etc. Further, the work provides a methodological framework for the diffusion of energy efficient technology, and the implications of such diffusions for the Clean Development Mechanism. The study analyses the reasons for the gap between the possible and practical implementation of energy efficient measures, studies the reasons for households not using the cost-effective technologies available to them. It also looks into the benefits of innovation of

energy efficiency and the required policies as well as specific proposals for government intervention to achieve the potential for the clean development mechanism.

Srijit Mishra (Public Health Scenario in India, in Kirit Parikh and R. Radhakrishna edited *India Development Report 2004*, Oxford University Press, forthcoming) evaluates some aspects of the contemporary public health scenario in India. First, with increasing life expectancy, the epidemiological transition points towards greater incidence of non-communicable or lifestyle diseases. This goes hand in hand with a continuing serious problem of communicable and preventable diseases. Second, there is a lot of variation in the public provisioning of health care, a state subject, and the poorer states are hard-pressed. Third, India is an exception across countries, with nearly four-fifths of healthcare expenditure being out-of-pocket. Coupled with the burgeoning growth of unregulated private sector caregivers, this has serious implications. These three issues open up a number of policy questions on access to, utilisation and quality of care, and the most important among them is to address the concerns of the poor and the sick.

Using NSS data on child and prenatal care Srijit Mishra (Access to Knowledge with Physical and Financial Access will Improve Child Survival, *Lancet*, vol. 362, no. 9381, <http://www.thelancet.com/journal/vol362/iss9381/full/llan.362.9381.childsurvival.26716.1>, August 2, 2003) shows rural-urban divide, income-class divide and Bihar's lowest position versus Kerala's highest across states. Ranking states and income-class together shows that Bihar does worse than the lowest decile and Kerala does better than highest decile suggesting that child survival goes beyond economic well-being. Access to knowledge is as relevant as physical and financial access.

Srijit Mishra (Child Survival in Orissa, in SN Misra edited *Indian Economy and Socio-Economic Transformation: Emerging Issues and Problems Essays in Honour of Professor Baidyanath Misra*, Deep and Deep, New Delhi, pp.71-82, 2004) analyses child survival in Orissa through various socio-economic and medico-demographic characteristics using Census 1991 and NFHS (1 and 2) estimates. Census 1991 estimates reveal that relatively lower child survival in Orissa is not necessarily identified with poorer caste groups or districts with greater proportion of poor. However, NFHS-2 provides some explanation for 'poverty-low child survival' linkage through better child survival for increments in standard of living index. Further, both Census and NFHS estimates show that increase in mother's educational level is a robust indicator of improvement in child survival. In addition, NFHS estimates also show that longer birth interval, greater birth size, and antenatal/delivery care improve child survival. Compared across states, Orissa's rank with regard to IMR/U5M is among the lowest, but because of lower live birth rate and lower population, absolute number of child deaths is much lower when compared to BIMARU states. This, however, does not mean that public policy efforts should consider it to be less serious. Rather, it calls for programmes in Orissa to be an integral part of the global concern to improve child survival.

Rijo M. John (Tobacco Consumption Patterns and its Health Implications In India, *Health Policy*, forthcoming) analyses the pattern of tobacco consumption and its health implications in India. Using various rounds of National Sample Survey the paper finds that though there is a reduction in tobacco consumption in the form of *bidi* and cigarette in India as a whole, this decrease is compensated for by an increase of *paan* consumption in rural India. It has also been observed that the consumption of tobacco is more among the poor in India and Rijo argues that the

consequent higher health care spending arising out of tobacco related diseases leaves them economically worse off. Besides the economic gains that tobacco industry is generating, tobacco use also imposes burden, especially on users, in the form of numerous tobacco related diseases and high health care spending. This, coupled with the fact that the investment on health by government is declining over the years, has the potential to trap the poor in a vicious circle of poverty and ill health. Hence government policy needs to be targeted towards an effective control of Tobacco use.

Srijit Mishra (Secluded and Proximate Illiteracy: Comparing Situations, *Social Indicators Research*, forthcoming) uses triplot to portray the three-dimensional concepts – literate, proximate illiterate and secluded illiterate. Pictographic portrayal complemented with a method proposed to calculate distance between situations enhances comparison. Illustration with Indian data explains change over time, rural-urban divide, and social gap.

Srijit Mishra and Udaya Shankar Mishra (Secluded and Proximate Illiterates among Couples: Implications on Health of Women and Children, *Economic and Political Weekly*, vol. 39, no. 7, 745-749, February 14, 2004; reprinted in S. Irudaya Rajan and K.S. James edited, *Demographic Change, Health Inequality and Human Development in India*, Centre for Economic and Social Studies, Hyderabad, pp.487-504, 2004) attempt to analyse linkages between secluded and proximate illiterates in the couple domain with outcomes such as household standard of living and implications on health of women and children. The analysis confirms greater positive externalities on proximate illiterates as against isolated illiterates. Between the two proximate categories, the male proximate illiterates by and large fare better.

# Projects

IGIDR faculty members undertake projects funded by national and international organizations, provided they are consistent with the Institute's objectives. Project work enables

access to and wide dissemination of data, provides an interface between academia and policy makers, and facilitates the growth of a network with other institutions and researchers.

## Externally Funded Research Projects at IGIDR

Project Name	Funding Organization
International Trade, Competitiveness and Finance: The Developing Countries Experience	International Development Research Centre
Regional Collaboration Research on Mitigation of Environmental Emissions from the Urban Transport System	Asian Institute of Technology
Economic Analysis of Rural Pollution and Health Impacts in Uttar Pradesh	Environmental Economic Research Committee
A Review of Literature on UNSEEA Accounting System	United Nations University
Study of Minimum Support Price for Foodgrains	Ministry of Finance
Forecasting Economic Activity using Financial Sector	Ministry of Finance
How important is Land Consolidation	National Bank for Agriculture and Rural Development
State Development Report of Assam	Planning Commission
Managing Price Volatility in an Open Economy Environment: The case of Edible Oils and Oilseeds in India	International Food Policy Research Institute
Achieving Food Security in a Cost Effective Way: Implications of Domestic and External Trade Liberalization	International Food Policy Research Institute
Policies that Influence the IFI Mechanism – Accountability, Transparency and Participation (Technology Management)	Centre for Global Studies
Green House Gas Emissions from Municipal Solid Waste (Young Scientist)	Ministry of Science & Technology
Secondary Market Development for the Indian Debt Market	Asian Development Bank
Socio-Economic & Policy Implication of the Roles of Agriculture Project	Food & Agricultural Organization
Strategies for Promotion of Energy Efficient & Cleaner Technologies in the urban Transport system in selected Asian countries	Asian Institute of Technology
South Asia Poverty Alleviation Programme	United Nations Office for Project Services

<b>Project Name</b>	<b>Funding Organization</b>
Maharashtra Development Report	Planning Commission
Maharashtra Human Development Action Research Study	United Nations Development Programme
The Potential role of the Clean Development Mechanism to Improve Energy Efficiency in South Asia	Global Development Network
Productivity Impacts of Green Revolution in cereal crops in India	Foundation for Advanced Studies on International Development
Research on Indian Agricultural Markets & Policy	United States Department of Agriculture
Activity Pattern Mobility and the Welfare of the Urban Poor (Transportation)	International Bank for Reconstruction & Development
Zero Coupon Yield Curve	National Stock Exchange of India Ltd.
Food & Nutritional Insecurity & Chronic Poverty Efficacy & Effectiveness of Food for Work Programme Element in Sampurna Grameen Rozgar Yojana	Indian Institute of Public Administration
Growing Rural-Urban Disparity	Planning Commission
	National Institute of Rural Development

Details of some ongoing projects are provided below:

**Liberalization of food-processing sector in India: A study using the GTAP Model, Research on Indian Agricultural Markets and Policy**

A. Ganesh-Kumar, Manoj Panda and Mary Burfisher

Agro-processing industries have an important role in the economic development of developing countries – directly as a source of income/employment and indirectly for its backward linkages with agriculture. In the past, the agro-processing sector was highly protected in India. On the trade front, there were high levels of tariff and non-tariff barriers. On the production side also, the sector was largely reserved for small scale firms which prevented the sector from benefiting from technological progress and scale economies and becoming internationally competitive. Further, severe restrictions were also

imposed on the entry of foreign firms into this sector (as in most other sectors of the economy). As a result, the growth of the agro-processing sector in India has not achieved its full potential. Against this background, this ongoing collaborative project between IGIDR and ERS/USDA, Washington D.C., proposes to study the impact of two most important reform measures to this sector, viz. trade and investment reforms. They propose to use the computable general equilibrium (CGE) model framework as it accounts for various inter-sectoral linkages, producer and consumer behaviour, and various government policies. One such CGE model that has been widely used for similar studies in other contexts is the Global Trade Analysis Project (GTAP) modelling framework developed at the Purdue University, USA. A distinctive characteristic of this model compared to national models is that it solves for equilibrium prices and quantities taking into account international trade and capital flows of several countries/regions of the world.



## ***The Potential role of the Clean Development Mechanism to Improve Energy Efficiency in South Asia***

B. Sudhakara Reddy

One of the most important aspects of the climate change protocol signed at Kyoto in 1997 is the development of an emissions trading mechanism. According to this framework, developed countries can invest in greenhouse gas (GHG) reduction projects in other countries and obtain Certified Emission Reduction (CER) credits. This is referred to as the clean development mechanisms (CDM). Since energy production and utilisation contributes to more than half of global emissions, it is important to target energy sector as a GHG reduction strategy. Substituting efficient technologies for inefficient ones and shifting from non-renewable to renewable sources are the ways to provide cost-effective services to consumers and at the same time reduce negative environmental impacts through decreased energy inputs. Using household sector in India, Bangladesh and Nepal as case studies, the present work looks at the prospects of these options in the backdrop of CDM and their implementation based on three criteria: (i) awareness: propagating the economic and environmental incentives to the consumer, the government and the society, (ii) capital constraints: how readily available is the funding; and (iii) institutional mechanism: the difficulties

in the process of implementation. A methodological framework has been developed for the individual technological options in the household sector that estimates energy savings, the rate of return for the consumer and the benefit to the society in terms of reducing emissions.

The project depends on both secondary and primary data sources. The information on pattern of energy carrier consumption has been obtained from the results of National Sample Survey. This data threw light on the pattern of consumption by different sections of the society and the consumption for different end-uses such as cooking, water-heating and lighting. A survey of 2000 households in Mumbai, Bangalore, Delhi and Hyderabad is being completed. Households in Viskhapatnam, Calcutta, Jaipur and Trivandrum will also be surveyed. The household surveys will give insights into the perception of the households on the energy efficiency and renewable energy technologies, the barriers to implementation and the role of CDM. A village-level survey is also planned. In Bangladesh, a survey is on at Dhaka city and in a few villages. Data collection from Kathmandu and some villages in Nepal is also being conducted. The results will be used to identify the barriers (economic, social, environmental and behavioural) and the implementation of CDM projects. The barriers will be prioritised according to the perspectives of the consumer, the government and the society.

# Teaching

IGIDR has a strong teaching programme covering a variety of topics in the fields of economics and development. The P.G. Diploma/Ph.D. programme was initiated in 1990, and in 1995, the Institute earned the recognition of a deemed University. The P.G. Diploma was upgraded to an M.Phil. in 1996-97. M.Sc. in Economics has been initiated from August 2003.

Every year, approximately 35 students are selected for the M.Sc. and M.Phil./Ph.D. programmes on the basis of an aptitude test followed by an interview. Advertisements are provided nationally around January/February. The academic year runs from August to July. The Institute has awarded approximately 42 Ph.D. and 20 M.Phil. degrees as of March 31, 2004.

The M.Sc. and M.Phil./Ph.D. programmes include extensive course work for two years. In addition, M.Phil./Ph.D. scholars have to write a dissertation. The Ph.D. programme is designed to evolve scholars with the capacity to effectively utilise quantitative and interdisciplinary analysis to contribute to the understanding of national and global developmental issues. While a multidisciplinary approach is encouraged, the programme lays emphasis on economics to provide an integral framework within which various development issues can be addressed.

The following courses were offered in 2003-04:

Courses	Instructors
<b><i>Compulsory, Semester 1</i></b>	
Microeconomics I	Bibhas Saha
Macroeconomics I	Rajendra Vaidya
Statistics & Econometrics I	M.H. Suryanarayana
Energy and Environment I	B. Sudhakara Reddy
Mathematics for Economists	Praveen Kulshreshtha
<b><i>Compulsory, Semester 2</i></b>	
Microeconomics II	P. G. Babu
Macroeconomics II	Veena Mishra
Statistics & Econometrics II	Ganesh Kumar
Energy and Environment II	Vijay Laxmi Pandey
Development Economics	K.V. Ramaswamy
<b><i>Optional, Semesters 3 &amp; 4</i></b>	
Economy-wide Models	R. Radhakrishna & Manoj Panda
Special Topics in Microeconomics	Bibhas Saha
Environmental Economics	Sudhakar Yedla
Econometric Applications	Kausik Chaudhuri
Topics in International Macroeconomics	Ashima Goyal
Impact Evaluation of the Development Project:	Aldas Janaiah
Quantitative Techniques and Approaches	
Time Series Analysis I	R. Krishnan
Mathematical Finance	Sandeep Juneja

# Symposium/Conferences

## **Energy, Environment and Sustainable Development: A symposium**

**IGIDR, Mumbai**

**July 6-7, 2003**

The symposium aimed to address the issues through paper presentations, discussions and dialogue. The themes of the symposium ranged from energy efficiency to climate change including economic development with environmental imperatives. The symposium provided a forum for participants from academia, industry, financial institutions, and government agencies to interact and report on research in progress in the fields of sustainable economy, energy and environmental policy. Distinguished academicians, planners and policy makers participated.



On July 6, 2003 at 16:15 hours, His Excellency, The President of India Dr. A. P. J. Abdul Kalam, inaugurated the symposium and delivered the inaugural address. Governor of Maharashtra Shri Mohammed Fazil, Deputy CM of Maharashtra, Shri Chagan Bhujbal, Dr. Bimal Jalan, Dr. Rakesh Mohan, Dr. Radhakrishna, Prof. Jyoti Parikh, Prof. Kirit Parikh and Dr. B. Sudhakara Reddy spoke about the importance of energy and environmental issues which play an important role in economic development.

The two-day symposium had panel discussions on energy security and reforms and special lectures on Technology and Development and Linking of Rivers. There were paper presentations on Energy, Environment and Natural Resource Management. The participants included Sri. N. K. Singh, Member Planning Commission, Shri. T. L .Sankar, ASCI, Hyderabad. Dr. Rakesh Mohan, RBI, Mumbai, Dr. Ashok Desai, Business Standard, Prof. M. G. K. Menon, Former Minister of State for Science and Technology, Dr. R. Mashelkar, Director General, CSIR, New Delhi, Dr. P. K. Iyengar, former Chairman, Atomic Energy Commission, Shri. Suresh Prabhu, Chairman, River linking project, Government of India, and Dr. E .A. S. Sarma, Principal, ASCI, Hyderabad, Dr. U. C. Mishra, BARC, Mumbai and Dr. Vaidyanathan, MIDS, Chennai.

## **Sixth Money and Finance Conference**

**IGIDR, Mumbai**

**March 25-27, 2004**

Dr. Y.V. Reddy, Governor, Reserve Bank of India, inaugurated the conference. Dr. Claudio Borio, Head of Research and Policy Analysis, Bank of International Settlements, Switzerland, delivered the keynote address on “The Elusive Search for Monetary and Financial Stability”.

In his inaugural address Dr. Y.V. Reddy delineated the main considerations of monetary policy making in India and demonstrated how the academic perspective was a valuable input in this process. Dr. Claudio Borio, surveyed from a historical angle, the issues involved in the context of monetary policy that impinged on financial stability

The main topics of the conference were: Micro-Finance and Credit Delivery Systems; Basel II; Monetary Policy Rules in Open Economies; and Restructuring of Indian Banking. About 40 papers

were presented on these themes in six sessions, viz. Monetary Policy, chaired by Dr. Pulapre Balakrishnan, Professor, IIM, Kozhikode; Issues in Corporate Finance, chaired by Dr. Romer Correa, Director, Department of Economics, University of Mumbai; Micro-Finance and Rural Credit chaired by Dr. Bibhas Saha, Associate Professor, IGIDR, Mumbai; Issues in Indian Capital Market, chaired by Dr. Bandi Kamaiah, CAS, Professor, Central University, Hyderabad; Open Economy Macro-Economics, chaired by Dr. Veena Mishra, Professor, IGIDR, Mumbai; and Issues in Indian Banking and Finance chaired by Dr. T.V.S. Rammohan Rao, Professor, IIT Kanpur. In addition, there were two special invited lectures “Quantum Leap in Indian Capital Market During the Last Decade” by Dr. R.H. Patil, Chairman, Clearing Corporation of India Ltd., Mumbai; and “Forecasting Interest Rates in India” by Professor Pami Dua, Delhi School of Economics, Delhi.

The Valedictory Function of the conference was held on March 27, 2004 with Dr. A. Vaidyanathan, Professor Emeritus, Madras Institute of Development Studies, Chennai delivering the valedictory address with Professor Mihir Rakshit, Director, Monetary Research Project, ICRA Ltd., Calcutta in the Chair.

Dr. A. Vaidyanathan surveyed the major problems that confront the Indian economy in the post liberalized scenario and how financial stability was crucial for the successful implementation of the remaining stages of the reform process.

The conference was coordinated by Dr. Dilip Nachane in association with Dr. R. Nagaraj, Dr. Rajendra Vaidya and Dr. Ashima Goyal. Faculty, staff and the students of the IGIDR co-operated wholeheartedly in making the Conference a success. The feedback from participants was extremely encouraging.

### *IGIDR-EPWRF Database Project*

A special feature of the conference was a session on “Data base of the Indian Economy,” chaired by Professor A. Vaidyanathan. The principal discussant was Dr. S.L. Shetty, Director, Economic and Political Weekly Research Foundation (EPWRF).

IGIDR and EPWRF have jointly set up the Indian Economy Database Project for compilation of comprehensive and up-to-date data on the Indian economy and their dissemination to researchers, policy makers and other stakeholders. The EPWRF has, for long, been engaged in constructing statistical database for economic research in India. Given IGIDR’s mandate to promote research by scholars and institutions, the project is meant to help in the creation of consistent and regular data for users in academic institutes as well as government and private organizations. *Annual Survey of Industries 1973-74 to 1997-98* and *Domestic Product of States of India 1960-61 to 2000-01* are among the recent publications from this project. Regular lectures to IGIDR students and an annual seminar on database research on Indian economy are proposed ventures.

### **Indo-China Economic Forum Shenzen, China November 26-27, 2003**

China and India are the leading developing countries in the world and together constitute about a third of the global population. The level of economic development and the structure of national economy of the two countries are quite similar. Since the early 1980s, both the countries have been committed to reducing poverty levels, strengthening science and technology base, opening markets (although India was a late entrant) and making them fast growing economic

entities. In future, China and India will realize the reconstruction of their national building and become strong countries, which will change the world economic pattern in the 21st century given their large and ever growing markets.

To promote economic cooperation between the two countries a new guidance and thinking is essential. There is a need from researchers, policy makers and economists to exert their ability and wisdom, so as to find new modes and eliminate obstacles to establish a bridge for actual cooperation between think tanks, politicians and entrepreneurs of the two countries.

With these broad objectives in mind, the Indira Gandhi Institute of Development Research (IGIDR) and the China Development Institute (CDI), Shenzhen, China, have proposed that the think tanks of both the countries co-sponsor a forum to study the issues of economic cooperation. They intend to invite experts and researchers, government officials, entrepreneurs and organizations from the two countries as well as international organizations, business magnates and experts worldwide. The goal of this forum is not only to provide valuable reference for the economic cooperation between the two countries but also to create a platform for the development of a long-term relationship.

The first conference of the Indo-Chinese Economic Forum was organized at Shenzhen, China, during November 26-28, 2003. Economic complementation and the prospect of cooperation between the two countries were the issues covered. Cooperation in the areas of IT, trade, agriculture, medicine, construction, mechanic, new energy, small industry was discussed. Further discussions included how to extend bilateral-trade under WTO framework, abide by Intellectual Property Right agreement on trade, reduce tariff, reduce protectionism, avoid anti-

dumping tax and improve the production competitiveness in both countries actively.



IGIDR led a group of 17 members (including six faculty members) comprising researchers, entrepreneurs and policy makers who presented papers, chaired sessions and helped bring out the conference proceedings.

Minister of Agriculture, Andhra Pradesh, Sri.V. Sobhanadrewasara Rao, along with Director, IGIDR, Dr. R.Radhakrishna, addressed the inaugural session. Professor Radhakrishna also chaired a session on "The perspective advantage, Complementation and Cooperation between India and China." Dr.B.Sudhakara Reddy chaired a session on "The process of Industrialization and Technology Exchange between India and China."

From IGIDR, Dr. R. Radhakrishna, Dr. P. V. Srinivasan, Dr. Ashima Goyal, Dr. R. Nagaraj and Dr. Aldas Janaiah presented papers. Some sessions were devoted to the industrial cooperation and the group led by IGIDR actively participated. Their itinerary included a visit to software industries. The leading "Shenzhen Economic Daily" sponsored a dinner for the participants and also brought out a special issue on November 27, covering the entire proceedings. The next meeting of the Forum is to be held at IGIDR, Mumbai, in 2005.

# Faculty Activities

## Seminars/Lectures/Workshops

### Kausik Chaudhuri

Attended and served as the principal discussant for a session in the *Sixth Annual Conference on Money and Finance in the Indian Economy*, IGIDR, Mumbai, March 25-27, 2004.

### A. Ganesh-Kumar

Organized seminar on “IGIDR-EPWRF Project on the data base of the Indian Economy” special day long workshop as part of the *Sixth Annual Conference on Money and Finance in the Indian Economy*, IGIDR, Mumbai, March 25-27, 2004.

Organized workshop on *Poverty Reduction Strategy as Implementation of the Right to Development* (jointly with Centre For Development & Human Rights, New Delhi) and presented paper “Right to Development: Some Quantitative Dimensions for India” (with Manoj Panda), IGIDR, Mumbai, November 19, 2003.

Organized inception seminar on *Indian Agricultural Markets and Policy*, IGIDR-ERS/USDA (Economic Research Service/United States Department of Agriculture, Washington, D.C.) collaborative research project, IGIDR, Mumbai, October 9-10, 2003.

Discussant for the paper titled “Poverty and Agriculture” by Manoj Panda, at the *National Workshop on the Roles of Agriculture*, FAO-IGIDR Project meeting, IGIDR, October 6-7, 2003.

### Ashima Goyal

Member coordinating committee and discussant for four papers in the session on Monetary Policy *Sixth Annual Conference on Money and Finance in the Indian Economy*, March 25-27, 2004, IGIDR, Mumbai.

Invited paper on “Regulation of Stock Markets in India” for the conference *Regulation, Deregulation and Re-regulation in Globalizing Asia*, National University of Singapore, Public Policy Programme, March 22-24, 2004.

Discussant for the chapter on “Fiscal Situation and Policies” at workshop on *Maharashtra Development Report*, IGIDR and Planning Commission, IGIDR, Mumbai, February 12-13, 2004.

Panellist at a discussion on “The Current Economic Boom: will it last?” S. P. Jain Institute of Management and Research, Mumbai, January 24, 2004.

Presented a paper “Dictatorship versus Democracy: Macro Policy in China and India” (with A.K. Jha) at *China- India’s Economic Cooperation and Development under WTO Framework*, China Development Institute, Shenzhen, China, November 26-28, 2003.

Invited as discussant for Comments on Thomas Willet, Ekniti Nitithanprapas, Isriya Nitithanprapas, and Sunil Rongala (Claremont Graduate University, California) “The Asian Crises Reexamined” at *Asian Economic Panel Meeting*, Korea Institute for International Economic Policy (KIEP), Seoul, October 9-10, 2003.

Panellist at a discussion on “Have interest rates bottomed out globally?” Corporate Markets Advisory Group, ICICI Bank, August 20, 2003.

Invited address on “Impact of an Appreciating Rupee on the Indian Economy” and participated in a panel discussion at *14<sup>th</sup> National Assembly of the Forex Association of India*, August 16, 2003.

Presented a paper “Getting Water from Public Private Partnerships” at *IIR2004 Writer’s Workshop*, IDFC and 3i Network, Mumbai, June 14-15, 2003, and at a symposium on *Energy, Environment, and Sustainable Development*, IGIDR, Mumbai, July 6-7, 2003.

Commented as an external expert at a presentation on Foreign Exchange Reserves for the DRG, Reserve Bank of India, May 19, 2003.

Commented on the terms of reference at a meeting with the 12th Finance Commission, Mumbai, April 17, 2003.

### **Aldas Janaiah**

Presented a paper “The Role of Political Leadership in Attaining the Green Revolution in Asia: The Indian Experience” at a workshop on *African Green Revolution Initiative*, United Nations Economic Commission for Africa (UNECA), Kampala, Uganda, December 8-12, 2003.

Presented a paper “Agricultural Biotechnology for Sustaining the Green Revolution: Can Indian” Learn any Lessons from the Chinese Experiences?” at *China- India’s Economic Cooperation and Development under WTO Framework*, China Development Institute, Shenzhen, China, November 26-28, 2003.

Delivered lectures on “Assessing the Impacts of Public Investments in Irrigation Projects: Quantitative Techniques” at the workshop-cum-training on *Impact Evaluation Methods*, Asian Development Bank, Hanoi, VietNam, September 25-28, 2003.

Presented a paper “Has Green Revolution Bypassed the Coarse Cereals? The Indian Experience” at the workshop (pre-IAAE Con) on *Green Revolution in Asia and its Transferability to Africa*, FASID (Foundation for Advanced Studies on International Development, Japan), Durban, South Africa, August 14-16, 2003.

Presented a paper “Can Africa Learn Any Lessons from Asia’s Green Revolution Experiences” at the Workshop of the Experts’ Group on *Science & Technology for the Sustainable Development in Africa: Towards Green Revolution*, United Nations Economic Commission for Africa (UNECA), Addis Ababa, June 8-11, 2003.

Presented a paper “The Public Sector Agricultural R&D: Past Impacts and Challenges Ahead” at the workshop on *Agricultural Policies for the 21<sup>st</sup> Century – From Vision to Action*, ANGRAU and IFPRI (USA), Hyderabad, April 15-16, 2003.

### **Shikha Jha**

Commissioned paper “Panchayats – Functions, Responsibilities and Resources” for *National Seminar on Panchayati Raj Finances*, 12<sup>th</sup> Finance Commission of India, National Institute of Rural Development, Hyderabad, January 23, 2004.

Invited paper “Efficient Redistribution through Deregulation of Domestic Grain Markets” (with P.V. Srinivasan) for a conference on *Anti-Poverty and Social Policy in India*, MacArthur Research Network on Inequality and Economic Performance, Neemrana Fort Palace, Alwar, Rajasthan, India, January 2-4, 2004.

Presented a paper “India – Alternative Policy Options for Farm Support Operations” at the inception seminar of *Indian Agricultural Markets and Policy*, IGIDR-ERS/USDA collaborative research project, IGIDR, October 9-10, 2003.

Discussant for “Fiscal Reform: A Perspective from the Financial Market” by Saumitra Chaudhuri at conference on *Issues before the Twelfth Finance Commission*, Delhi, September 29-30, 2003.

Presented a paper “Analysing effects of removal of restrictions on domestic movement of grains” at South Asia Initiative Workshop on *Analysis of Trade Liberalization for Poverty Alleviation*, Council for Agricultural Research Policy, IFPRI, World Bank Institute, Colombo, Sri Lanka, April 21-25, 2003.

### **Srijit Mishra**

Contributed a paper “Necessary and Sufficient Condition for Completely Mixed Strategy Matrix Games” at the 40<sup>th</sup> annual conference of the *Indian Econometric Society*, Institute for Social and Economic Change, Bangalore, February 13-15, 2004.

Organized review workshops for the health and livelihood module and final module workshop for the health module of *Maharashtra Human Development Action Research Study* on September 3, September 25 and December 5 respectively, IGIDR, Mumbai, 2003.

Participated in national workshop and national public consultation on *Right to Healthcare*, Jan Swasthya Abhiyan and CEHAT, Mumbai, September 5-6, 2003.



Participated in “Training Workshop on using Censinfo 2001 software on CD” at Mumbai, July 22-23, 2003 (Censinfo 2001 CD has been given to IGIDR library).

Presented a paper “Secluded and Proximate Illiteracy across Social Groups: Analysis through Triplots” at Centre for Development Studies, Thiruvananthapuram, June 9, 2003 and at Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar June 27, 2003.

Participated in workshop on *Orissa Human Development Report*, UNDP and NCDS, Bhubaneswar, June 23-24, 2003. Subsequently sent written comments on the draft report.

Delivered a lecture “Using Triplots for Analysing Changes in Causes of Death” to Master of Public Health students at Achuta Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, June 12, 2003.

Participated in workshop on *State Budget Analysis—An Advocacy Tool*, CEHAT and NCAS, Mumbai, April 21-23, 2003.

### **Dilip M. Nachane**

Delivered a distinguished lecture “Causality in Economics” at University of Hyderabad, January 12, 2004.

Delivered “Globalisation and Inequality among Nations” as *Eighth Lalit Doshi Memorial Lecture*, St. Xavier’s College, Mumbai, December 23, 2003.

Delivered “Indian Economics in Disarray: Tragedy of a Forsaken Legacy” as *Third Ranade Memorial Oration*, University of Mumbai, September 24, 2003.

### **R. Nagaraj**

Member of the organising committee of the *Sixth Annual Conference on Money and Finance in the Indian Economy*, IGIDR, Mumbai, March 25-27, 2004.

Presented a paper “Industrial Growth in China and India: A Preliminary Comparison” at a conference on *75 years of Development Research*, Economics Department of Cornell University, May 7-9, 2004; at the Centre for Development Studies, Thiruvananthapuram, March 5, 2004 and at *China-India’s Economic Cooperation and Development under WTO Framework*, China Development Institute, Shenzhen, China, November 26-28, 2003.

Delivered a module of 8 lectures on “India’s Industrialization” for the M. Phil. programme, Centre for Development Studies, Thiruvananthapuram, February 29-March 6, 2004.

Discussant for the chapter on “Industrial Growth” in *Maharashtra Development Report*, February 12, 2004.

Participated in a workshop on *Spatial Disparities and Challenges of Development, Food Security and Industrial Clusters*, ICSSR-WIDER, New Delhi, January 31-February 1, 2004.

Presented a paper on “Labour Market Issues in India” (see [http://ctool.gdnet.org/conf\\_docs/Rayaprolu\\_paper.pdf](http://ctool.gdnet.org/conf_docs/Rayaprolu_paper.pdf)), Asian Development Bank, 5<sup>th</sup> Annual Global Development Network Conference on *Understanding Reforms*, New Delhi, January 28-30, 2004,

Participated in a seminar on *Regional Dimensions of Growth, Poverty and Quality of Life*, Indian Association for Research in Income and Wealth, Jaipur, January 16-18, 2004.

Presented a paper at the panel discussion on “Labour Policy of India” at the conference on *Anti-Poverty and Social Policy in India* (see <http://globetrotter.berkeley.edu/macarthur/inequality/papers/NagarajWage.pdf>), MacArthur Research Network on Inequality and Economic Performance, Neemrana Fort Palace, Alwar, Rajasthan, India, January 2-4, 2004 at Neemrana, Alwar, Rajasthan.

Delivered two lectures on (i) Industrial Growth and (ii) FDI in India at a refresher course, Economics Department, Mumbai University, December 2004.

Presented a paper at the panel discussion on “Defining/Developing the Framework for Financing Sustainable Development” at a seminar on *Strategies for Development Financing in India*, Exim Bank of India, Mumbai, December 10-12, 2003.

Delivered three lectures for college teachers’ refresher course organized by Academic Staff College, Osmania University, Hyderabad, October 2003.

Participated in national symposium on *Trade and Globalisation: The Agenda Towards Cancun 2003*, Union Commerce Ministry, UNDP and UNCTAD, Delhi, August 18-19, 2003.

Delivered a lecture on “FDI in India” at Chinai College, Andheri East, April 2003.

### **Manoj Panda**

Presented a paper “Economic Growth and Poverty during 1990s: Did Orissa Benefit from the Reforms?” at a workshop on *Reviving Orissa Economy: Opportunities and Areas of Action*, Utkal University, Bhubaneswar, January 2004.

Discussant of a paper “Impact of Trade Reforms on the Indian Informal Economy: A Macro Analysis with CGE Methodology” at a workshop organised by NCAER, New Delhi, January 2004.

Presented a paper “Role of Agriculture in the Poverty Reduction Process in India” at a seminar organized by FAO at India International Centre, New Delhi, November 2003.

Presented a paper “Right to Development: Some Quantitative Dimensions for India” (with A. Ganesh-Kumar), *Poverty Reduction Strategy as Implementation of the Right to Development*, IGIDR and CDHR, IGIDR, Mumbai, November 19, 2003.

Presented a paper “Poverty and Agriculture” at the *National Workshop on the Roles of Agriculture*, FAO-IGIDR Project meeting, IGIDR, October 6-7, 2003.

Presented a paper “WTO Agreement on Agriculture: India’s Experience and Concerns” (with A. Ganesh-Kumar) at the Economic Research Service of the USDA, Washington, August 2003.

### **Vijay Lakshmi Pandey**

Presented a paper “Sustaining productivity through Resource Conservation Technologies in the rice wheat farming system of Indo-Gangetic Plains of India” at *Open Science Meeting on Human Dimensions of Global Environmental Change Research*, Montreal, Canada, October 17-19, 2003.

Presented a paper “Impact of economic reforms on rural poverty of India.” at *25<sup>th</sup> International Conference of Agricultural Economists*, Durban, South Africa, August 16-22, 2003.

Delivered an invited lecture for “International Course on Advances in Fish Culture and Fisheries” organized by Wageningen University and Research Centre, Netherlands, at CIFE, Versova, Andheri (E), Mumbai.

### **R. Radhakrishna**

Chaired the inaugural and valedictory sessions of the *17<sup>th</sup> Annual Conference of the Indian Agricultural Marketing Society*, Hyderabad, February 5-7, 2004.

Initiated discussions on ‘Improving the Food Security of the Poor’ and participated in other discussions at the seminar on *Right to Food*, Food and Agricultural Organisation/Centre for Social Development, Delhi, January 8, 2004.

Discussant for “Food Security in Bangladesh in the Context of Evolving Food Policy and Markets” at the CESS-LPEM-IFPRI workshop on *Agribusiness: From Parastatals to Private Trade – Why, When and How?* International Food Policy Research Institute, New Delhi, December 15-16, 2003.

Participated in the inaugural session and also presented a paper on “Food Security in India” at the international conference on *China-India’s Economic Cooperation and Development under WTO Framework*, China Development Institute, Shenzhen, China, November 26-28, 2003.

Participated and was a panellist for the session on “Lessons Learnt, Future Directions and Synthesis” in the international conference on *The Dragon and the Elephant: Agricultural and Rural Development and Reform Experiences in China and India*, International Food Policy Research Institute (IFPRI) and the Chinese Academy of Agricultural Sciences, Beijing, November 10-11, 2003.

Presented a paper “Emerging Nutritional Trends in India: Their Implications” at international seminar on *Public Health in India: Colonial and Post-colonial Experience*, Institute of Development Studies, Kolkata (IDSK), October 15-16, 2003 and delivered lecture on “Teaching of Development Economics” at Institute of Development Studies, Kolkata, October 17, 2003.

Presented the project report on “Chronic Poverty, Food Insecurity and Malnutrition in the Nineties” (jointly with K. Hanumantha Rao, C. Ravi and B. Sambhi Reddy) in the seminar on *Chronic Poverty and Development Policy in India*, Indian Institute of Public Administration and the Centre for Chronic Poverty, University of Manchester, held at IIPA, Delhi, October 3-5, 2003.

Chaired a session and presented a paper “Improving Food Security of the Poor” at a seminar on *India-Egypt and their contributions to Development Policies and Thought*, Centre Ecole de Paris, Cairo and Centre for Human Sciences, New Delhi, at Cairo, October 2003.

Chaired a session and presented a paper “Emerging Nutrition Trends in India: Their Implications” (jointly with C. Ravi) at a seminar on NFHS-II, Centre for Economic and Social Studies, Hyderabad, September 16-18, 2003.

Chaired a session on “Economic Reforms” at the inception workshop of SHARP, Indo-Canadian Shastri Institute, New Delhi.

Participated in the Policy Analysis and Advisory Network for South Asia (PAANSA) meeting, International Food Policy Research Institute (IFPRI), Delhi, August 3-5, 2003.

Participated in the meeting on *Growing Rural-Urban Disparity*, NIRD, June 9-10, 2003.

Participated and chaired a session on *Perspectives of Advantage Complementation* and served as a Member of the World Bank Mission on National Emergency Employment Program in Afghanistan, May 5-11, 2003. Submitted to the World Bank, Washington DC, the Technical Report on *Social Protection Issues*.

Participated in the *Social Protection Forum* of the World Bank, Colombo, April 1-4, 2003.

### **K.V. Ramaswamy**

Delivered two Lectures for UGC Refresher Programme at the Department of Economics, Mumbai University, Kalina, Mumbai, February 2004.

Delivered two lectures on *Global Production Networks and Trade Policy in India* for the Post Graduate students of NITIE, Mumbai, December 2003.

### **Anitha Ramanna**

Delivered lecture on “Intellectual Property and Agriculture: India’s Law on Breeders’ and Farmers’ Rights” at the College of Biotechnology University of Saskatchewan, Canada October 21, 2003 and at the German Institute for Economic Research, Berlin, Germany, October 31, 2003.

Presented a paper “Global Political Economy of TRIPs Negotiations” at International Conference on *Moving Forward From Cancun: The Global Governance of Trade, Environment and Sustainable Development*, CAT +E (Concerted Action on trade and environment) Ecologic, Berlin, Germany, October 30-31, 2003. This conference is part of the international research project CAT+E funded by the 5<sup>th</sup> Framework Programme of the European Commission - DG Research in co-operation with the Task Force for Global Issues of the German Federal Foreign Office.

Presented a paper “Intellectual Property Rights, Agriculture and Rural Communities” at the *Fifth International Symposium on the Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities*, Institute for Agricultural Rural and Environmental Health, University of Saskatchewan, Saskatoon, Canada, October 19-23, 2003.

Delivered lecture on “India’s Plant Variety and Farmer’s Rights Legislation” presented at the Gokhale Institute of Politics and Economics, May 12, 2003.

Delivered two guest lectures on “Intellectual Property Rights” at the Central Institute of Fisheries Education for course on International Trade and WTO, Andheri (W), Mumbai, May 6, 2003.

### **Shovan Ray**

Participated in workshop on *Human Development*, Tata Institute of Social Sciences (TISS) and UNDP, TISS, Mumbai, March 8, 2004.

Organized inception workshop on livelihood module (June 3, 2003) and review workshops for the modules of education (August 16, 2003) and health (September 3, 2003) and final module workshops for education (December 4, 2003), health (December 5, 2003) and livelihood (January 23, 2004), tour of Jalna villages (January 16-19, 2004) and tour of Yavatmal villages (February 2-4, 2004) as part of *Maharashtra Human Development Action Research Study*, IGIDR, Mumbai.

Participated in Indian Society of Labour Economics Conference and chaired a technical session, Jadavpur University, Kolkata, December 15-17, 2003.

Group Discussion on Culture Module for FAO Roles of Agriculture project with Prof. Dipankar Gupta of Jawaharlal Nehru University (JNU), December 9, 2003.

Participated in workshop on “Poverty Reduction Strategy as Implementation of the Right to Development” jointly with the Centre for Development of Human Rights (CDHR), New Delhi, November 19, 2003.

Organized Visit of FAO Evaluation Mission for Roles of Agriculture study at IGIDR, November 3-5, 2003.

Organized seminar on FAO Roles of Agriculture project workshop at India International Centre, New Delhi. Presented Modules 1 and 5 and National Synthesis report and chaired the session, November 6, 2003.

Presented a paper “National Synthesis for India for the Role of Agriculture Project” at the FAO International conference on the *Roles of Agriculture in Developing Countries*, Rome, Italy, October 20-22, 2003.

Presented a paper “The Role of Agriculture in Poverty Reduction: India” at the 25<sup>th</sup> *Conference of the International Association of Agricultural Economists*, Durban, South Africa, August 16-22, 2003.

Survey for FAO Roles of Agriculture Project Module 5 in Delhi, July 21-25, 2003.

Participated in symposium of *Energy, Environment and Sustainable Development* inaugurated by President of India, IGIDR, July 6-7, 2003.

Participated in workshop on *Orissa Human Development Report Study*, UNDP and NCDS, Bhubaneswar, June 23-24, 2003.

Invited as resource person for *Orissa Human Development Report Study*, NCDS, Bhubaneswar, May 14, 2003

Presentation on Pro-Poor Globalisation, UNDP, New Delhi, April 9, 2003.

## **B. Sudhakara Reddy**

Delivered a lecture “Environment and Development” on the occasion of the World Environment Day at the Rashtriya Chemicals and Fertilisers Ltd., Mumbai, June 5, 2004.

Presented a paper “Beyond the State-Centric diffusion of Renewable energy technologies” at the *African Energy Week*, 2004 Congress and Exhibitions, Abuja, Nigeria, March 22-26, 2004.

Delivered two lectures “Commercialisation of Renewable energy Technologies” to the participants of International Training Programme on *Renewable Energy in Local, National and Global Context with Socio-economic Perspectives*, New Delhi, February 24-March 5, 2004.

Delivered five lectures on “Environmental Economics” to the MA (Economics) and Research students of the Department of Economics, Andhra University, Visakhapatnam, February 17-23, 2004.

Chaired a session “The Process Of Industrialization and Technology Exchanging Between India and China”, Indo-China Economic Forum, Shenzhen, China, November 26-27, 2003.

Participated in the workshop “The methodological issues in developing CDM projects”, The Probase Expert Workshop On CDM, Groningen, November 6-7, 2003.

Presented a paper “Natural Resource Management through Peoples participation” IFSSO Conference, Jakarta, October 3-5, 2003.

Presented a paper “Dynamics of Technology Shifts in India’s Household Sector – Implications for Clean Development Mechanism”, Second Asian Energy Conference, August 25-26, 2003, Hongkong.

Presented a paper “The Potential Role of the Clean Development Mechanism to Improve Energy Efficiency in South Asia” at SANEI (South Asia Network of Economic research Institutes), Colombo, Sri Lanka, August 15-17, 2003.

Organising Secretary, *Energy, Environment and Sustainable Development*, inaugurated by His excellency Dr.APJ Kalam, President of India, during July 6-7, 2003.

### **Jayati Sarkar**

Discussant for the paper titled “Public Sector Units: Restructuring and Reforms” by K. Narayanan at the workshop on *Maharashtra Development Report*, IGIDR, March 7, 2003.

### **Nirmal Sengupta**

Chaired Session II and discussant of paper “Handlooms and Handicrafts” by R. K. Jadhav at workshop on *Maharashtra Development Report*, IGIDR, February 12-13, 2004.

Delivered keynote address “The New Institutional Economics – Its perimeters and promises” at the 86<sup>th</sup> *Annual Conference of Indian Economic Association*, Shivaji University, Kolhapur, December 29-31, 2003.

Panel presentation “Biodiversity: Indigenous knowledge/Traditional Knowledge Systems and IPR” and session coordinator for “Coastal and Marine Ecosystems” at 3<sup>rd</sup> *Biennial Conference of Indian Society for Ecological Economics (INSEE)*, IIM, Kolkata, December 18-20, 2003.

Presented a paper “Water: Development Alternatives” as part of a panel presentation, was a resource person at *Research and Training Workshop*, South Asian Network for Development of Environmental Economics (SANDEE), Asian Institute of Technology (AIT), Bangkok, November 18-22, 2003.

Invited paper “Traditional Knowledge and Intellectual Property Rights” for seminar on *Intellectual Property Rights*, Delegation of the European Commission to India, Bhutan, Nepal, Sri Lanka and the Maldives, Administrative Staff College of India, Hyderabad, November 17-18, 2003.

Resource person for seminar on *Conservation Of Water*, Earthcare Foundation in collaboration with Commonwealth Forestry Association, India Habitat Centre, New Delhi, October 17, 2003.

Presented a paper “CPR Institutions: Game Theory Constructs And Empirical Relevance” at *Conversations (2) between Economists and Anthropologists*, Centre for South Asia Studies, University of California, Berkeley, Goa, August 1-3, 2003.

Presented a paper “Trade Facilitation from WTO Perspective” at the Expert Group Meeting, Department of Commerce, Ministry of Commerce and Industries, New Delhi, July 7, 2003.

Discussant in a brain storming workshop on *Developing Activity Guide on Water for National Children's Science Congress 2004-5*, National Council for Science and Technology Communication Network, IIM, Kolkata, May 8 –11, 2003.

Delivered a lecture “Climate Change and Interlinking of Rivers” at the symposium on “Whose Rivers Anyway” at the *World Social Forum*, Mumbai, January 18, 2004.

### **Vinod K. Sharma**

Organized workshop on *Maharashtra Development Report*, Planning Commission, Government of India, IGIDR, February 12-13, 2004.

Participated on invitation in the seminar on “Environmental Solutions from the UK” organised by the British Council, Mumbai, February 3, 2004.

Presented a paper “State Of EPDs In India: Some Observations” at *International Conference And Workshops On Environmental Product Information*, Nordic Council Of Ministers, Unep, Ged-Net, Swedish Industry Association (Sinf), Nutek And Unep-Setac-Lci, Stockholm, Sweden, September 29-30, 2003.

Chaired a session on “Gender Issues” and participated at a workshop on *Shastri Applied Research Projects on three thrust areas namely, Economic Reforms, Social and Health and Environmental Management*, Indo-Canadian Shastri Institute, New Delhi, September 1-5, 2003.

Presented a paper “Review of Life Cycle Assessment Activities in India” at the *2<sup>nd</sup> International ISIE Conference on Industrial Ecology for Sustainable Future*, University of Michigan, Ann Arbor, MI, USA, June 29-July 02, 2003.

Member, Organizing Committee, Symposium on *Energy, Environment and Sustainable Development* inaugurated by the President of India and a panel member for the thematic workshop on “Environmental Impacts of Development and Ecosystem Management” for Ministry of Environment and Forests and World Bank aided (EMCaB) project, IGIDR, July 5-7, 2003.

### **P.V. Srinivasan**

Invited paper “Efficient Redistribution through Deregulation of Domestic Grain Markets” (with Shikha Jha) for a conference on *Anti-Poverty and Social Policy in India*, MacArthur Research Network on Inequality and Economic Performance, Neemrana Fort Palace, Alwar, Rajasthan, India, January 2-4, 2004.



Presented a paper “Rule based trading under the WTO: Implications for domestic food policy” at the *China-India’s Economic Cooperation and Development under WTO Framework*, China Development Institute, Shenzhen, China, November 26-28, 2003.

Presented a paper “Agriculture and Food security in India” at the FAO International conference on the *Roles of Agriculture in Developing Countries*, Rome, Italy, October 20-22, 2003.

Presented a paper “Managing Price volatility under Trade Liberalization” at the South Asia Initiative Workshop on *Analysis of Trade Liberalization for Poverty Alleviation*, Council for Agricultural Research Policy, IFPRI, World Bank Institute, Colombo, Sri Lanka, April 21-25, 2003.

### **M.H. Suryanarayana**

Presented a paper “Poverty and Human Development Monitoring System in Karnataka: Indicators, Rationale and Approach” at a consultation workshop on “Poverty Monitoring for Andhra Pradesh” at the Centre for Economic and Social Studies, Hyderabad, February 2004.

### **Rajendra Vaidya**

Delivered 10 lectures as part of a Seminar Course in Corporate Finance at Narsee Monjee Institute of Management Studies, Mumbai, January-February 2004.

Delivered three lectures on “Economic Reforms in India” at Jamnalal Bajaj Institute of Management Studies, Mumbai, September 9-11, 2003.

Taught a course on Managerial economics at XLRI, Jamshedpur, June-July 2003.

### **Sudhakar Yedla**

Attended the Annual Review Workshop on “Strategies to promote energy efficient technologies in urban transportation” under *Asian Regional Research Project for Energy and Climate (ARRPEEC-II)*, Bangkok, September 24-26, 2003.

Attended the International conference on the *Roles of Agriculture in Developing Countries*, Rome, Italy, October 20-22, 2003.

## **Refereeing, Memberships, Awards, & Other Activities**

### **P.G. Babu**

Referee/reviewer for *Journal of Quantitative Economics*, *Sadhana: Journal of Indian Academy of Sciences* and *SIAM Journal of Control and Optimization*.

Membership of Committees in IGIDR: Canteen, Executive, Infrastructure, Library and Masters program.

## **Kaushik Chaudhuri**

Referee/reviewer for *Indian Economic Review*, *Journal of Banking and Finance*, *Journal of Development Economics*, *Journal of Emerging Market Finance*, *Journal of International Money and Finance*, *Journal of Money, Credit and Banking* and *Journal of Quantitative Economics*.

Membership of Committees in IGIDR: Computer and RP/WP.

## **A. Ganesh-Kumar**

Refereed the paper “Markets, Regulatory Institutions, Competitiveness and Reforms” by Saugata Bhattacharya and Urjit R. Patel for *Global Development Network (GDN)*.

Reviewed the report titled *Manpower Planning and Training Infrastructure: A Case for Indian Apparel Sector* prepared by the Textiles Committee, Ministry of Textiles, Government of India, Mumbai.

Member, Advisory Committee for the *IGIDR-EPWRF Project on the database of the Indian Economy*.

Member, IGIDR Admissions Committee-2003 and partly responsible for setting the entrance test question paper, Analytical/Verbal.

## **Ashima Goyal**

Referee/reviewer for *Asian Economic Papers*, *Decision*, *Indian Economic Review*, *Journal of Quantitative Economics*, *Maharashtra Development Report*, Palgrave Publishers, Sage Publishers and *Sixth Money and Finance Conference*.

Membership of Committees in IGIDR: Entrance Exam, Foreign Travel, Library and Macro Comprehensive Exam.

Selected by the Indian selection committee in October 2003 for the Fulbright Senior Research Fellowship, 2004-05.

Interviews on aspects of the current economic scene given to *Business Today*, *MEDC Economic Digest*, *Outlook*, *Outlook Money Magazine*, *Project Monitor* and *Sahara Samay*.

## **Aldas Janaiah**

Referee/reviewer for *Agricultural Economics* (2003 onwards) and *Agricultural Economics Research Review*.

Member, Ad hoc Experts Group on Science & Technology of the United Nations Economic Commission for Africa (UNECA), June 2003, onwards.

International Team Leader, the World Bank-Asian Development Bank Joint Project *Assessing the Poverty Impacts of Public Irrigation Expenditures in Viet Nam*.

External examiner for PhD theses evaluation, (a) Banaras Hindu University (Varanasi), and (b) Madurai Kamaraj University (TN).

### **Shikha Jha**

Conducted viva-voce for Ms. Anjani L. Sarma for defence of her Ph.D. thesis *Behavioural Responses of Imperfectly Competitive Firms to Tax Changes*, University of Mumbai, March 21, 2003.

### **Dilip M. Nachane**

Elected Member, Academy of Sciences, New York, USA.

Managing Editor, Journal of Quantitative Economics (since April 2000).

Chairman, Research Advisory Committee, Indian Institute of Banking & Finance (since 2002).

Member, Editorial Board, Indian Economic Journal (since 1992).

Member, Executive Council, Indian Econometric Society (since 1999).

Member, Indian Economic Association Research Trust (since 1995).

Member, Research Advisory Committee, Clearing Corporation of India Ltd. (since Jan. 2004)

Member, Advisory Committee, Narsee Monjee Institute of Management Studies (since 2003)

### **R. Nagaraj**

Referee/reviewer for *Indian Journal of Labour Economics*, and *Economic and Political Weekly*; also refereed a paper for IGIDR-FAO project.

Member of the social audit group of CEHAT, an NGO working on health related issues.

### **Vijay Laxmi Pandey**

Referee/Reviewer for *World Development*.

Membership of Committees in IGIDR: Academic Council, RA allotment and Welfare.

## **R. Radhakrishna**

Member, Academic Council, International Institute for Population Sciences, Mumbai.

Corresponding Editor, *Journal of Asian Economics*.

Member, SHARP Programme Advisory Committee (Economics) Shastri Indo-Canada Institute, New Delhi.

President, Indian Society of Agricultural Marketing.

Member, Andhra Pradesh State Research Board, Government of Andhra Pradesh.

Founder Member, Centre for Economic & Social Studies, Hyderabad.

Member, National Selection Committee for VKRV Prizes in Social Science Research.

Member, Working Group for Revision of Index Numbers of Wholesale Prices in India (Base: 1993-94=100).

Member, Expert Committee on the International Comparison Programme of the United Nation Statistical Commission, constituted by the Government of India, with reference year 2004.

## **Anitha Ramanna**

Referee/Reviewer for *Journal of Intellectual Property Rights* and CAPRI Working Paper Series.

## **Shovan Ray**

Member, Advisory Committee for the *IGIDR-EPWRF Project on the database of the Indian Economy*.

## **B. Sudhakara Reddy**

Refereed “Encouraging Reforms in the Indian Electricity Sector” for *Utilities Policy*.

Refereed “Barriers to energy conservation in Indian industries” for *Energy Policy*.

Refereed “Fuel Demand Elasticities for Energy and Environmental Policies: Indian Sample Survey Evidence” for *Energy – The International Journal*.

Membership of Committees in IGIDR: Faculty Selection, Foreign Travel, Library and Welfare.

Member, International Organising Committee, *8<sup>th</sup> Arab Solar Energy Conference and Regional World Renewable Energy Congress*, March 8-10, 2004, Bahrain, Kingdom of Bahrain.

External thesis examination: Ph.D by J Sacrates, Madras University.

Executive committee member, Indian Society for Ecological Economics.

### **Jayati Sarkar**

Referee/reviewer for *Emerging Market Finance and Trade*.

External Thesis Examination: M.Phil thesis, JNU.

### **Nirmal Sengupta**

Refereed/reviewed one article for *Environment and Development Economics*, Cambridge University Press and two articles for *Water International*, Journal of the International Water Resources Association.

Reviewed one proposal for SANDEE (South Asian Network for Development of Environmental Economics).

Commented on two chapters of *Maharashtra Development Report*, IGIDR.

Member, Executive Council: Indian Society for Ecological Economics.

Member, Expert Committee on Trade facilitation: Union Ministry of Commerce & Industries.

Member, External Advisory Committee, *Revista de Economía Institucional*, Bogota.

Member, Governing Council, Madras Institute of Development Studies, Chennai.

### **Vinod K. Sharma**

Peer Reviewer, Centre for Indoor Air Research, Maryland, USA.

Associate Editor, *Journal of Global Environment Engineering*, Japan Society of Civil Engineers, Tokyo, Japan.

Member, Editorial Board, *International Journal of Life Cycle Assessment*, Ecomed Publishers, Landsberg, Germany.

Member, Editorial Advisory Board, *Environmental Monitoring and Assessment*, Kluwer Academic Publishers, Dordrecht, The Netherlands.

Chairman EEIU, India Chapter (Eco-Ethics International Union, Germany).

Member, Air & Waste Management Association, USA.

Member, Association of Environmental and Resource Economists, USA.

Member, Indo-French Technical Association, India.

Member, Institution of Engineers, India.

Member, Indian Society of Desert Technology, India.

Member, Indian Aerosol Science & Technology Association, India.

Member, SHARP Programme Advisory Committee (Environmental Management), Shastri Indo-Canadian Institute under Canada International Development Agency, 2003.

Member, International Life Cycle Panel, the highest authority of UNEP/SETAC Life Cycle Initiative.

Dean of Academic Programmes, IGIDR

Membership of Committees in IGIDR: Convenor and member Research/Teaching Assistant allocation, member, Executive committee and member of interview panel for selection of Ph.D./M.Phil./M.Sc. students at IGIDR, July 2003.

Worked as Convener, Students' Welfare and Grievances Redressal Cell, IGIDR.

# Research Publications

## Books

Bagchi, Barnita, *Pliable Pupils and Sufficient Self-Directors: Narratives of Female Education by Five British Women Writers, 1778-1814*, Tulika Books, New Delhi, 2004.

Nachane, Dilip M. jointly with Romar Correa, G. Ananthapadmanabhan and K. Shanmugam (eds.), *Econometric Models: Theory and Applications*, Allied Publishers Private Ltd., 2004.

Nagaraj, R., *Aspects of Indian Economic Growth and Reforms, 1980-2000: Selected Essays*, Academic Press, forthcoming.

Parikh, Kirit and Radhakrishna, R. (eds.), *India Development Report 2004*, Oxford University Press, forthcoming.

Radhakrishna, R. and Ray, Shovan (eds.), *Poverty in India*, Handbook Series, Oxford University Press, forthcoming.

Reddy, B. Sudhakara jointly with Gaudenz B. Assenza (eds.), *Energy Efficiency and Climate Change: Conserving Power for a Sustainable Future*, Earth scan Publishers, London, forthcoming 2005.

Sengupta, Nirmal (eds.), *Economic Studies of Indigenous & Traditional Knowledge*, Indian Economic Association Trust for Research and Development, being processed for publication.

Sengupta, Nirmal jointly with Jayanta Bandhyopadhyay and Upendra Dhar (eds.) *Proceedings of the Third Biennial Conference of the Indian Society for Ecological Economics*, work in progress.

Sharma, Vinod Kumar (ed.), *Maharashtra State Development Report*, Planning Commission, Government of India, New Delhi, forthcoming.

Sharma, Vinod Kumar, *Handbook of Environment*, Bookwell Publishers, Delhi, 2004.

Vaidya, Rajendra jointly with Subir Gokarn and Anindya Sen (eds.), *The Structure of Indian Industry*, Oxford University Press, New Delhi, 2004.

## Articles and Reprint, Preprint Papers

### P.G. Babu

“The Clean Development Mechanism: Issues and Options” (jointly with Kavikumar and Bibhas Saha) in M. Toman, U. Chakravorty and S. Gupta edited *India and Global Climate Change: Perspectives on Economics and Policy from a Developing Country*, Resources for the Future, Washington D.C., 2003.

## **Barnita Bagchi**

“Instruction a Torment? Jane Austen’s Early Writing and Conflicting Versions of Female Education in Romantic-Era ‘Conservative’ British Women’s Novels” *Romanticism on the Net*, <http://www.ron.umontreal.ca>, forthcoming.

“Gender, History, and the Recovery of Knowledge through Information and Communication Technologies: Reconfiguring the Future of Our Past” in Amiya Kumar Bagchi, Dipankar Sinha, and Barnita Bagchi edited *Information and Information Communication Technology through the Ages*, Manohar, New Delhi, forthcoming 2004.

“Rokeya Sakhawat Hossain” (translation) in M. Bhowmik and S. Akhtar edited *Zenana Mehfil: Writings by Early Bengali Muslim Writers, 1904-1938*, Stree, Kolkata, forthcoming 2004.

“Dialectic” (translation of “Dwandha” by Selina Hossain) in J. Bagchi and S. Das Gupta edited *Gender and Partition in Eastern India*, vol. 2, Stree, Kolkata, forthcoming 2004.

“The Worship of Women” (translation of a work by Rokeya Sakhawat Hossain) in Malini Bhattacharya and Abhijit Sen edited *Talking of Power*, Stree, Kolkata, 2003.

“No Truths, Only Ways of Seeing? A Note on Sir Gawain and the Green Knight” *Journal of the Department of English, Calcutta University*, vol. 20, no. 2, 2003.

“Inside Tarini Bhavan: Rokeya Sakhawat Hossain’s Padmarag and the Richness of South Asian Feminism in Furthering Unsectarian, Gender-Just Human Development” *Urdhva Mula: Journal of Sophia College Centre for Women’s Studies*, vol.2, no. 2, 2003.

“Cheery Children, Growing Girls, and Developing Young Adults: On Reading, Growing, and Hopscotching Across Categories” IGIDR WP-2003-05.

“Carrying Over: Analysing Female Utopias and Narratives of Female Education from 17th-Century France to 18th-Century Britain and 20th Century India” IGIDR WP-2003-03.

## **Ashima Goyal**

“Foreign Investment in India: Riding the Wave” in H.S. Kehal edited *Foreign Investment in Developing Countries*, Palgrave Macmillan, UK, forthcoming.

“Puzzles in Indian Performance: Deficits Without Disasters” in Kirit Parikh and R. Radhakrishna edited *India Development Report 2004*, Oxford University Press, forthcoming.

“The Impact of Structure and Openness on the Causal Ordering of Interest, Inflation and Exchange Rates” *Journal of Quantitative Economics*, forthcoming.



“Agriculture and Industry: Enhancing Mutual Gains” *Decision*, vol. 130, no. 2, July-December 2003.

“Getting Water from Public Private Partnerships” in S Morris edited *India Infrastructure Report 2004: Bringing About Value for Money in Infrastructure*, 3iNetwork and Oxford University Press, New Delhi, 2004.

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### **Aldas Janaiah**

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“Hybrid Rice Cultivation in the Philippines: Early Farm Level Experiences” (jointly with Cheryll B. Casiwan, Sergio R. Francisco, Mahabub Hossain, Josephine Narciso, Ellaine Cabrera and Flordeliza C. Hidalgo) *Economic and Political Weekly*, vol. 38, no. 25, June 21, 2003.

“Hybrid Rice in Tamil Nadu: Evaluation of Farmers’ Experiences” (jointly with C. Ramasamy, K.N. Selvaraj and Mahabub Hossain) *Economic and Political Weekly*, vol. 38, no. 25, June 21, 2003.

“Hybrid Rice in Andhra Pradesh: Findings of a Survey” *Economic and Political Weekly*, vol. 38, no. 25, June 21, 2003.

“Hybrid Rice in Bangladesh: Farm-Level Performance” (jointly with Mahabub Hossain and Muzzam Husain) *Economic and Political Weekly*, vol. 38, no. 25, June 21, 2003.

“Vietnam Experience with Hybrid Rice” (jointly with Mahabub Hossain and Tran Thi Ut) *Economic and Political Weekly*, vol. 38, no. 25, June 21, 2003.

“Profitability of Hybrid Rice Cultivation: Evidences from Karnataka” (jointly with P.G. Chengappa and M.V. Srinivasa Gowda) *Economic and Political Weekly*, vol. 38, no. 25, June 21, 2003.

“The Seed Delivery System in Andhra Pradesh: Institutional and Policy Issues” *The Indian Journal of Agricultural Marketing*, vol. 17, no. 2, 2003.

### **Shikha Jha**

“Achieving Food Security in a Cost Effective Way: Implications of Domestic Deregulation and Reform under Liberalized Trade” (jointly with P.V. Srinivasan) *MTID Discussion Paper 67*, Markets, Trade and Institutions Division, International Food Policy Research Institute, Washington D.C., 2004.

“State Finances in India: Towards Fiscal Responsibility” (jointly with Stephen Howes) in Edgardo M. Favaro and Ashok K. Lahiri edited *Fiscal Policies and Sustainable Growth in India*, Oxford University Press, New Delhi, 2004.

### **Praveen Kulshreshtha**

“Rationing by Waiting, Opportunity Costs of Waiting and Bribery” *Indian Economic Review*, vol. 38, no. 1, January-June 2003.

### **Srijit Mishra**

“Secluded and Proximate Illiteracy: Comparing Situations” *Social Indicators Research*, forthcoming.

“Public Health Scenario in India” in Kirit Parikh and R Radhakrishna edited *India Development Report: 2004*, Oxford University Press, forthcoming.

“Secluded and Proximate Illiterates among Couples: Implications on Health of Women and Children” (jointly with Udaya Shankar Mishra) *Economic and Political Weekly*, vol. 39, no. 7, February 16, 2004. Also reprinted in S. Irudaya Rajan and K.S. James edited *Demographic Change, Health Inequality and Human Development in India*, Centre for Economic and Social Studies, Hyderabad, 2004.

“Child Survival in Orissa” in SN Misra edited *Indian Economy and Socio-Economic Transformation: Emerging Issues and Problems (Essays in Honour of Professor Baidyanath Misra)*, Deep and Deep, New Delhi, 2004.

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### **Dilip M. Nachane**

“Have Monetary Policy Lags Changed in The Post-liberalisation Period in India?” in V.Pandit and K.Krishnamurty edited *Economic Policy Modelling for India*, Oxford University Press, New Delhi, 2004.

“Analysis of the Capital Account in India’s Balance of Payments” (jointly with Rajiv Ranjan,) *Economic and Political Weekly*, vol. 39, no. 27, July 3, 2004.

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“Credit Rating and Bank Behaviour in India: Possible Implications of the New Basel Accord” (jointly with Saibal Ghosh) *Singapore Economic Review*, vol. 49, no. 1, 2004.

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### **R. Nagaraj**

“Industrial Labour Market: Wages and Employment since 1950” in *Scribner’s Encyclopaedia of India*, forthcoming.

“Industrial Policy and Performance: Which Way Now?” *Economic and Political Weekly*, vol. 38, no. 5, August 30-September 5, 2003.

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### **Manoj Panda**

“Economic Growth and Poverty during 1990s: Did Orissa Benefit from the Reforms?” in R.K. Panda edited *Reviving Orissa Economy: Opportunities and Areas of Action*” A.P.H. Publishing Corporation, New Delhi, 2004.

“Price Changes and Some Underlying Aspects of Measurement of Poverty” (jointly with Kali Rath) *Journal of Quantitative Economics*, vol. 20, no. 1, January 2004.

### **Vijay Laxmi Pandey**

“Factors share in gross farm income: an empirical investigation in Hazaribag district of Jharkhand State” (jointly with B.K. Singh) *Agricultural Economics Research Review*, vol. 16, no. 1, 2003.

### **R. Radhakrishna**

“Poverty in India: Dimensions and Character”(jointly with Shovan Ray) in Kirit Parikh and R. Radhakrishna edited *India Development Report 2004*, Oxford University Press, forthcoming.

“Measurement of Changes in Economic Welfare in India, 1970-2001” (jointly with C. Ravi) *Journal of Quantitative Economics*, forthcoming.

“Agricultural Growth, Employment and Food Security: An Overview” revised paper (jointly with K. Venkata Reddy) *India Rural Development Report*, National Institute of Rural Development, forthcoming.

“Changing Food Preferences, Nutrition Intake and Nutritional Status, Emerging Perspectives and Issues” (jointly with S. Indrakant and C. Ravi) in Aditya Bhattacharjee and Sugata Marjit edited *Globalization and the Developing Economies*, Manohar, 2004.

“Food Security and Nutrition: Vision 2020” (jointly with K. Venkat Reddy) *India Vision 2020*, Background papers, Planning Commission, Government of India and Academic Foundation, New Delhi, 2004.

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“Beyond Quantification of Poverty: Emerging Issues in Poverty Reduction” (jointly with V.M. Rao and Shovan Ray) *The Indian Journal of Labour Economics*, vol. 47, no. 2, April-June 2004.

“Chronic Poverty and Malnutrition” (jointly with K. Hanumantha Rao, C. Ravi and B. Sambhi Reddy), Working Paper No.11, Chronic Poverty Research Centre, IIPA.

### **Anitha Ramanna**

“India’s Patent Policy and Political Economy of Development” in Kirit Parikh and R. Radhakrishna edited *India Development Report 2004*, Oxford University Press, forthcoming.

“Rights and Access to Plant Genetic Resources under India’s New Law” (jointly with Melinda Smale) *Development Policy Review*, forthcoming.

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### **K.V. Ramaswamy**

“Globalization and Industrial Labour Markets in South Asia: Some Aspects of Adjustment in a Less Integrated Region” *The Indian Journal of Labour Economics*, vol. 46, no. 2, April-June 2003.

### **Shovan Ray**

“Poverty in India: Dimensions and Character” (jointly with R. Radhakrishna) in Kirit Parikh and R. Radhakrishna edited *India Development Report 2004*, Oxford University Press, forthcoming.

“Beyond Quantification of Poverty: Emerging Issues in Poverty Reduction” (jointly with R. Radhakrishna and V.M. Rao) *The Indian Journal of Labour Economics*, vol. 47, no. 2, April-June 2004.

### **B. Sudhakara Reddy**

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“The Benefits and Drawbacks of Energy Efficiency” (jointly with Gaudenz B. Assenza, Dora Assenza, and Franziska Hasselmann) in B. Sudhakara Reddy and Gaudenz B. Assenza edited *Energy Efficiency and Climate Change: Conserving Power for a Sustainable Future*, Earth scan Publishers, London, forthcoming 2005.

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### **Bibhas Saha**

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## **Jayati Sarkar**

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“Corporate Governance Reforms and Corporate Sector Development in India” (jointly with Subrata Sarkar) in Darryl Reed and Sanjoy Mukherjee edited *Corporate Governance, Economic Reforms and Development: The Indian Experience*, Oxford University Press, New Delhi, 2004.

“Liberalization, Corporate Ownership and Performance: The Indian Experience” (jointly with Subrata Sarkar) in Ananya Mukherjee edited *Corporate Capitalism in South Asia* (as part of International Political Economy Series with Timothy M. Shaw as editor), Palgrave Macmillan, UK, 2003.

## **Subrata Sarkar**

“Corporate Governance Reforms and Corporate Sector Development in India” (jointly with Jayati Sarkar) in Darryl Reed and Sanjoy Mukherjee edited *Corporate Governance, Economic Reforms and Development: The Indian Experience*, Oxford University Press, New Delhi, 2004.

“The Tobacco Industry” (jointly with Anindya Sen and Ajit Ranade), in Subir Gokarn, Anindya Sen and Rajendra Vaidya edited *The Structure of Indian Industry*, Oxford University Press, New Delhi, 2004.

“Deregulation, Ownership and Efficiency in India Banking” (jointly with Subal Kumbhakar) *Arthaniti*, vol. 2, nos. 1-2, 2003.

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“Deregulation, Ownership and Productivity Growth - Evidence from Indian Banks” (jointly with Subal Kumbhakar) *Journal of Money Credit and Banking*, vol. 35, no. 3, 2003.

## **Nirmal Sengupta**

“Trade Facilitation” (jointly with Moana Bhagabati) in Kirit Parikh and R. Radhakrishna edited *India Development Report 2004*, Oxford University Press, forthcoming.

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“Salinization and the Importance of Rainwater Harvesting”, in Kanchan Chopra, C. H. Hanumantha Rao and Ramprasad Sengupta edited *Water: Resources, Sustainable Livelihoods and Eco-System Services* Concept, New Delhi, October 2003.

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### **Vinod Kumar Sharma**

‘State of Infrastructure in Maharashtra’ prepared as input for chapter on “Infrastructure Development” in Vinod Kumar Sharma edited *Maharashtra State Development Report*, Planning Commission, Government of India, New Delhi, forthcoming.

‘Urbanisation Scenario in Maharashtra’ prepared as input for chapter on “Urbanisation” in Vinod Kumar Sharma edited *Maharashtra State Development Report*, Planning Commission, Government of India, New Delhi, forthcoming.

“State of Environmental Product Declarations (EPDs) in India” (jointly with Yamini S. Kurani) *International Journal of LCA*, vol. 9, no.1, 2004.

“Review of Life Cycle Assessment Activities in India” (jointly with Yamini S. Kurani) *Proceedings of 2<sup>nd</sup> International ISIE Conference on Industrial Ecology for Sustainable Future*, University of Michigan, Ann Arbor, MI, USA, 2003.

## **P.V. Srinivasan**

“Managing Price Volatility in An Open Economy Environment: The Case of Edible Oils and Oilseeds in India” *MTID Discussion paper 69*, Markets, Trade and Institutions Division, International Food Policy Research Institute, Washington D.C. 2004.

“Achieving Food Security in a Cost Effective Way: Implications of Domestic Deregulation and Reform under Liberalized Trade” (jointly with Shikha Jha), *MTID Discussion Paper 67*, Markets, Trade and Institutions Division, International Food Policy Research Institute, Washington D.C., 2004.

## **Rajendra Vaidya**

“The Automobile Components Industry” (jointly with Subir Gokarn) in Subir Gokarn, Anindya Sen and Rajendra Vaidya edited *The Structure of Indian Industry*, Oxford University Press, New Delhi, 2004.

“Financial Liberalization in India and the Bank Lending Channel of Monetary Transmission” (jointly with Abhaysingh Chavan) *South Asia Economic Journal*, vol. 4, no. 2, 2003.

## **Project Reports**

Bagchi, Barnita, “Synthesis Report for the Education Module” as part of *Maharashtra Human Development Action Research Study*, UNDP (with Planning Commission, Government of India and State Planning Board, Government of Maharashtra as stakeholders), IGIDR, Mumbai, March 2004.

Jha, Shikha, “Alternative Policy Options for Farm Support Operations” as part of *Indian Agricultural Markets and Policy*, IGIDR-USDA/ERS (United States Department of Agriculture, Economic Research Service) collaborative research program, first draft, 2004.

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Radhakrishna, R. and Ray, Shovan, *South Asia Poverty Alleviation Programme* (jointly with V.M. Rao, G. Parthasarthy, P. Durgaprasad, K. Hanumantha Rao, S.M. Dev, Shaikh Galab, Alakh Sharma, Manoranjan Mohanty, D. Rajasekhar, S. L. Shetty, Anup Karan) UNOPS, Nepal, 2003.

Ray, Shovan, Pandey, Vijay Laxmi, Yedla, Sudhakar, Panda, Manoj, Srinivasan, P.V., *Socio-economic & Policy Implications of the Roles of Agriculture* (jointly with Raj Gupta, Amitabh Kundu, Dipankar Gupta), Food & Agriculture Organisation, Rome, 2004.



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Srinivasan, P.V., “Impact of Trade Liberalization on India’s Oilseeds/ Edible Oils Sector” IGIDR-USDA/ERS (United States Department of Agriculture, Economic Research Service) collaborative research program on *Indian Agricultural Markets and Policy*, first draft, 2004.

Srinivasan, P.V., “Market Reforms and Coping with Price Volatility in an Open Economy Environment: The Case of Edible Oils in India” IGIDR-IFPRI (International Food Policy Research Institute) collaborative research project, 2003.

Srinivasan, P.V., “National and Household level Food Security in India” as part of *Socio-economic & Policy Implications of the Roles of Agriculture*, Food and Agricultural Organization, Rome, 2003.

## **Book Reviews**

Bagchi, Barnita, Review of *Across the Nightingale Floor* by Lian Hearn, Macmillan, London, 2002, *The Book Review*, vol. 27, no. 11, November 2003.

Bagchi, Barnita, Review of *Storylines: Conversations with Women Writers* edited by Ammu Joseph, Vasanth Kannabiran, Ritu Menon, Gouri Salvi and Volga, Women’s WORLD India and Asmita Resource Centre for Women, New Delhi, 2003, *The Book Review*, vol. 27, no. 9, p.38, September 2003.

Ganesh-Kumar, A., Review of *Marketing the Unorganised Sector: Issues, Perspectives and Strategies* (2<sup>nd</sup> Edition) by Kamal Taori, Concept Publishing Company, New Delhi, 2003, *Indian Social Science Review*, forthcoming.

Jha, Shikha, Review of *Revenue Incentives at The Third Tier* by Indira Rajaraman, NIPFP Discussion Paper Series, February 2004.

Ramanna, Anitha, “To Controversial Technology” Review of *Seeds of Contention: World Hunger and the Global Controversy over GM Crops* by Per Pinstrup-Anderson and Ebbe Schioler, 2000, *Economic and Political Weekly*, vol. 39, May 15-21, 2004.

## **Others**

Goyal, Ashima, “Woo Technology by Outsourcing” *The Economic Times*, March 16, 2004.

Goyal, Ashima, “Instilling Business Sense into Babus” *The Economic Times*, January 20, 2004.

Goyal, Ashima, “Monetary Policy for Sustained Growth” *The Economic Times*, November 17, 2003.

Goyal, Ashima, “Can do after Cancun” *The Economic Times*, October 14, 2003.

- Goyal, Ashima, "Arbitrage and the Interest Rate Spectrum" *The Economic Times*, August 12, 2003.
- Goyal, Ashima, "Rupee must Travel a Two-way Street" *The Economic Times*, July 15, 2003.
- Goyal, Ashima, "New Agenda for Finance Panel" *The Economic Times*, June 17, 2003.
- Goyal, Ashima, "What are our Optimal Foreign Exchange Reserves?" *The Economic Times*, May 6, 2003.
- Janaiah, Aldas, Brought out a special issue with compilation of various case studies on hybrid rice adoption in *Economic and Political Weekly*, vol. 38, no. 25, June 21, 2003.
- Mishra, Srijit, Two Forums, Many Contrasts, *The Hindu Business Line*, <http://www.thehindubusinessline.com/2004/02/26/stories/2004022600050800.htm>, February 26, 2004.
- Mishra, Srijit, A Water Purifier and the War against Iraq, *The Hindu Business Line*, <http://www.blonnet.com/2003/04/08/stories/2003040800060800.htm>, April 8, 2003.
- Nagaraj, R., "Is there an Economic Boom in Offing?" *The Hindu*, November 2003.
- Nagaraj, R., "There's Nothing To Take Credit For" *Financial Express*, February 2004.
- Yedla, Sudhakar (ed.) "Issues in Urban Environmental Management" a special issue of *International Journal of Environment and Pollution*, Interscience Publishers, 2003.

# Student Activities

## Publications/Working Papers

Dhariwal, Richa, "Tourist Arrivals in India- How Important are Domestic Disorders" *Tourism Economics*, forthcoming.

John, Rijo M., "An Analysis of Household's Tobacco Consumption Decisions: Evidence from India" IGIDR Working Paper No. WP-2004-002.

John, Rijo M., "Tobacco Consumption Patterns And Its Health Implications In India" *Health Policy*, forthcoming.

Kumar, Jayesh, "Parliamentary Elections and Political Parties" *Journal of the Indian School of Political Economy*, vol. 15, no. 3, pp. 633-646, July-Sept 2003.

Narayanan, G. Badri (with V.K. Sharma), "India's Approach to International Environmental Issues" in an edited book to be published by John-Wiley and Sons, forthcoming.

Narayanan, G. Badri "Pollution Control by the Natural Dyes" in Nirmal Sengupta edited *Economic Studies Of Indigenous & Traditional Knowledge*, Indian Economic Association Trust for Research and Development, forthcoming.

Narayanan, G. Badri, "Analysis of Long-run Environmental Impacts of Adoption of Natural Dyes in the Indian Textile Industry" SSRN Electronic Library, December, 2003.

Narayanan, G. Badri, "Analysis of Interaction between Technology, Profits, Welfare and Profit effects of Mergers with Freer Trade" SSRN Electronic Library, December 2003.

## Other Activities

### Richa Dhariwal

Presented a paper "Tourist Arrivals in India- How important are domestic disorders" at *COSMAR*, Department of Management Studies, Indian Institute of Sciences, September 20-21, 2003.

### Kartik Hari

Participated and was volunteer for the *Sixth Annual Conference on Money and Finance in the Indian Economy*, IGIDR, Mumbai, March 25-27, 2004.

### **Chandra Kiran B.K.**

Presented a paper “The Theory of the Current Account and the Developing World: An Exploratory Empirical Analysis” at the *Sixth Annual Conference on Money and Finance in the Indian Economy*, IGIDR, Mumbai, March 25-27, 2004.

Contributed a paper “Sustainable Rural Lending: A simple model-based approach to default mitigation” (with Ashutosh Kumar) for the national seminar on *Contemporary Challenges to Agricultural and Rural Development*, University of Agricultural Sciences, Dharwad, Karnataka, January 8-10, 2004.

Presented a paper “On the Effect of Policy Lags in the Implementation of Pollution Mitigation Measures” at the national conference on *Advances In Environmental Science and Engineering*, IIT, Mumbai, December 8-9, 2003.

### **Ashutosh Kumar**

Presented a paper “Reducing Default Rate in Rural Credit: How Effective is Enhanced Supervision Approach for Formal Financial Institutions?” ([http://www.igidr.ac.in/~money/mfc\\_06/ashutosh.doc](http://www.igidr.ac.in/~money/mfc_06/ashutosh.doc)) at the *Sixth Annual Conference on Money and Finance in the Indian Economy*, IGIDR, Mumbai, March 25-27, 2004.

Contributed a paper “Sustainable Rural Lending: A simple model-based approach to default mitigation” (with Chandra Kiran BK) for the national seminar on *Contemporary Challenges to Agricultural and Rural Development*, University of Agricultural Sciences, Dharwad, Karnataka, January 8-10, 2004.

Contributed a paper “Formal Financial Institutions and Rural Credit provisioning in India: a micro-economic model to default mitigation” for the *86<sup>th</sup> Annual Conference of Indian Economic Association*, Shivaji University, Kolhapur, December 29-31, 2003.

Presented a paper “Formal Financial Institutions and Rural Credit provisioning in India: a micro-economic model to default mitigation” at the *International Conference on Issues in Developing Economics*, University of Bardwan, West Bengal, December 15-16, 2003.

### **Jayesh Kumar**

Presented a paper “Corporate Governance and Dividends Payout in India” at the *Sixth Annual Conference on Money and Finance in the Indian Economy*, IGIDR, Mumbai, March 25-27, 2004.

Presented and received outstanding award for a paper “Does Ownership Structure Influence Firm Value? Evidence from India” at the *7th Capital Markets Conference of Indian Institute of Capital Market*, UTI Institute of Capital Markets, IICM, Navi Mumbai, December 18-19, 2003. Also presented the paper at the Regional Research Network Meeting of Global Corporate Governance Forum held in conjunction with *Fifth Annual Conference on Financial Market Development in Emerging and Transition Economies*, Indian School of Business, Hyderabad, India, December 12-16, 2003.

Presented a paper “Shareholding Pattern and Firm Performance” at the *6th International Conference of the Association of Asia-Pacific Operational Research Societies*, Hotel Grand Inter-Continental, New Delhi, December 8-11, 2003.

Reviewer for Annual Meeting 2004 of Association of International Business.

Member, Editorial Review Board, *Academy of Accounting and Financial Studies Journal*, since February 2004.

### **Nitin Kumar**

Participated and was volunteer for the *Sixth Annual Conference on Money and Finance in the Indian Economy*, IGIDR, Mumbai, March 25-27, 2004.

Contributed a paper “Net Profits in the Domestic Electronics Industry from 1991 to 2001: A Comparative Analysis of the New and the Old Companies” at the *40th Annual Indian Econometric Society Conference*, ISEC, Bangalore, February 13-15, 2004.

### **Santosh Kumar**

Presented a paper “Determinants of Liquidity in Open Electronic Limit Order Book Market” at *Sixth Annual Conference on Money and Finance in the Indian Economy*, IGIDR, Mumbai, March 25-27, 2004.

Presented a paper “Liquidity: Persistence and Forecast in Open Electronic Limit Order Book Market” at *Eighth Annual Conference on Finance and Accounting*, Faculty of Management, Tel-Aviv University, Israel, December 28-29, 2003.

Presented and received outstanding award for a paper “Determinants of Liquidity in Open Electronic Limit Order Book Market” at the *7th Capital Markets Conference of Indian Institute of Capital Market*, UTI Institute of Capital Markets, IICM, Navi Mumbai, December 18-19, 2003.

### **G. Badri Narayanan**

Contributed a paper “Determinants of Employment in the Indian Textile Industry” for presentation at *2nd Oxmetric conference*, City College, London, April 2004.

Participated in a seminar on “Perspectives on Development in Maharashtra” at Mumbai University, April 2004.

Contributed a paper “A Policy-oriented Analysis of adoption of Natural Dyes in Indian Textile Industry” for the *National Symposium on Environment*, North Eastern Hill University, Shillong and for the *National Symposium on Sustainable Development*, IIRM, Jaipur, March 2004.

Presented a paper “Inflation-openness Relationship: A Dynamic Panel Analysis of Developing Countries” and was a volunteer for the *Sixth Annual Conference on Money and Finance in the Indian Economy*, IGIDR, Mumbai, March 25-27, 2004.

Participated and was volunteer for the workshop on *Maharashtra Development Report*, Planning Commission, Government of India, IGIDR, February 12-13, 2004.

Participated in a workshop “Environmental Solutions from UK” at Mumbai, January 2004.

Presented a paper “Determinants of Employment in the Indian Textile Industry” at the *40th Annual Indian Econometric Society Conference*, ISEC, Bangalore, February 13-15, 2004.

Presented a paper “Analysis of Long-run Environmental Impacts of Adoption of Natural Dyes in the Indian Textile Industry” at the national conference on *Advances In Environmental Science And Engineering*, IIT, Mumbai, December 8-9, 2003.

### **Rupayan Pal**

Participated in the *Sixth Annual Conference on Money and Finance in the Indian Economy*, IGIDR, Mumbai, March 25-27, 2004.

Presented a paper “Limit Wages in a Monopoly Union Model” (co-author Bibhas Saha) at the *Third Annual Conference on Models and Methods in Economics at Indian Statistical Institute*, Kolkata, January 15-17, 2004 and at the Department of Economics, University of Kalyani, January 19, 2004.

Participated and completed the training workshop on *Law and Economics*, IGIDR, Mumbai, March 10-28, 2003.

### **Ayan Kumar Pujari**

Presented a paper “Regional Variations in Indian Agriculture: A SUR-Panel Analysis” at the *40th Annual Indian Econometric Society Conference*, ISEC, Bangalore, February 13-15, 2004.

# Student Research Topics

Sr. No.	Name of Student	Thesis Topic	Supervisor/ Guide	Committee Members
<b>1990-91 (Ph.D.)</b>				
1.	Deb Chattopadhyay	Economic Operation of the Power System in India	Jyoti Parikh	Kankar Bhattacharya
2.	Piyush Tiwari	Economics of Urban Housing Markets in India	Jyoti Parikh	Kirit S Parikh
3.	Saumen Majumdar	Energy & Economics Linkages: Imports, Investments, Efficiency and Pricing Issues	Jyoti Parikh	Kirit S Parikh
<b>1991-92 (Ph.D.)</b>				
4.	Mukesh Anand	Shadow Prices for India: A Guide to Policy Reforms	PV Srinivasan	Raghendra Jha Shikha Jha
5.	Rajendra Rane	Risk, Returns, Anomalies and Efficiency of the Indian Stock Market: A Study of Cross-Sectional and Calendar Effects in the Bombay Stock Exchange (1964-95)	Kirit Parikh Subir Gokarn	Rajendra Vaidya PV Srinivasan
6.	Mridul Sagar	Some Issues Relating to Exchange Rate Policy in India: 1991-1998	Raghendra Jha	Ashima Goyal
7.	Sudhir Sharma	Soil Nutrient Availability and Sustainability of Agriculture in Punjab	Kirit S Parikh	JP Painuly Mahendra Dev
8.	N Satyanarayana Murthy	Energy, Environment and Economic Development: A Case Study of India	Jyoti Parikh Kirit S Parikh	Manoj Panda
<b>1992-93 (Ph.D.)</b>				
9.	Anoop Singh	Inter-fuel Substitution and Some Aspects of Industrial Energy Demand	Kirit S Parikh Jyoti Parikh	Shikha Jha Subrata Sarkar
10.	Brinda Viswanathan	Some Econometric Issues in Consumer Behaviour Analysis	MH Suryanarayana	Kirit Parikh Subrata Sarkar R. Krishnan
11.	Gangadhar Darbha	Role of Capital Markets Imperfections in Monetary Transmission Mechanism: Some Indian Evidence	Kirit Parikh	Veena Mishra A Ganesh Kumar
12.	Pradheepa Neelakantan	Incentives and Information in Organisations	Anindya Sen	Bibhas Saha Shikha Jha
13.	Raghavendra Rao	Policy Modelling of the Oil and Gas Sector in India	Jyoti Parikh	Kirit S Parikh Kankar Bhattacharya
14.	Subhajit Bhattacharya	Industrial and Trade Policies in International Strategic Environment	Anindya Sen	Bibhas Saha Subrata Sarkar
15.	Sameer Rege	Applied General Equilibrium Analysis of India's Tax and Trade Policy	Kirit S Parikh	PV Srinivasan Shikha Jha

Sr. No.	Name of Student	Thesis Topic	Supervisor/ Guide	Committee Members
16.	Saibal Ghosh	Union, Bargaining and Strikes	Anindya Sen Bibhas Saha	Subrata Sarkar
17.	Sudipta Dutta Ray	Employment, Turnover and Wages: A Study of the Organised Labour Market in India	Veena Mishra Subrata Sarkar	Bibhas Saha
18.	Sudipa Majumdar	Entry Deregulation Labour Union Response and Allocative Inefficiency: A Study of the Airline Industry in India	Subrata Sarkar Bibhas Saha	Sougata Poddar
19.	K Santha Kavi Kumar	Modelling and Analysis of Climate Change Impacts on Indian Agriculture	Jyoti Parikh	Kirit Parikh A. Ganesh-Kumar
20.	Saumya Shankar B.	The Effect of Exchange Rate Uncertainty on India's Export: An Econometric Investigation	Veena Mishra	R. Krishnan Subrata Sarkar
21.	Anamitra Saha	Determinants of Adoption of HYV Rice in West Bengal	Madhura Swaminathan	S. Mahendra Dev Subrata Sarkar Ramachandran
<b>1993-94 (Ph.D.)</b>				
22.	B.A.N. Sharma	Modelling Frameworks for Electric Generation and Transmission Expansion Planning	Jyoti Parikh Kankar Bhattacharya	Kirit Parikh R. Ramanathan
23.	Vinish Kathuria	Technology Transfer, Productivity Spillover and Technical Change – A Study of the Indian Manufacturing Industry	Subir Gokarn Subrata Sarkar	K.V. Ramaswamy
24.	Nibedita Das	Optimal Regulatory Policy: Applications to the Indian Telecommunications Sector	Raghendra Jha P.G. Babu	Ajit Mishra
25.	Shridhar Dash	Indian Asset Markets and their Interlinkages: An Empirical Analysis	Ashima Goyal	Ajay Shah Susan Thomas
26.	Tushar Waghmare	Market Microstructure and Performance: A Study of Indian Stock Market	Subir Gokarn	Rajendra V. Subrata Sarkar Ajay Shah
27.	Jayatu Sen C	The Indian Credit Rating Industry: An Evaluation	Subrata Sarkar Veena Mishra	Ajay Shah
28.	Vikas Rawal	Irrigation Development in West Bengal: 1977-78 to 1995-96	V.K. Ramachandran	Madhura S. Mahendra Dev
<b>1994-95 (Ph.D.)</b>				
29.	Santanu Gupta	Essays in Fiscal Federalism and Fiscal Expenditures	Raghendra Jha	P.G. Babu Jayati Sarkar
30.	Rajeev Ahuja	Essays on Insurance Markets	Ajit Ranade	Kirit Parikh Bibhas Saha



<b>Sr. No.</b>	<b>Name of Student</b>	<b>Thesis Topic</b>	<b>Supervisor/ Guide</b>	<b>Committee Members</b>
31.	Saumitra Bhaduri	Patterns and Determinants of Capital Structure: A Study of the Indian Corporate Sector	Subir Gokarn Subrata Sarkar	B. Guha-Khasnobis Jayati Sarkar
32.	Puneet Chitkara	Estimation of Performance Benchmarks, Inefficiency Measurement and Pricing of Power	Raghbendra Jha Kankar B.	Subrata Sarkar Ramanathan
33.	G.S. Haripriya	Environmental Accounting, Carbon Sequestration Potential and Policies for Carbon Mitigation in India	Jyoti Parikh V.K. Sharma	Kirit Parikh B. Sudhakara Reddy
34.	Sagar Koparkar	Bank, Credit, Asset Securitisation and Financing Infrastructure: A Case Study of India	Raghbendra Jha Ajit Ranade	Jayati Sarkar
35.	Vardhana Saple	Diversification, Merger and Their Effect on Firm Performance: A study of the Indian Corporate Sector	Subir Gokarn Rajendra V.	Anindya Sen Subrata Sarkar
36.	Mudit K	The Indian Coal Sector: Demand, Investment Productivity and Beneficiation Issues	Jyoti Parikh Anjana Das	Kirit Parikh
37.	Barnali Nag	Structural and Efficiency Indicators of Carbon Emission from Commercial Energy Use: A Sectoral Study for India	Jyoti Parikh V.K. Sharma	Kirit Parikh
38.	Kiran Karande	A Study of Castorseed Futures Markets in India	Susan Thomas Ajay Shah	Ajit Ranade
<b>1995-96 (Ph.D.)</b>				
39.	Manas Paul	Indian Real Exchange Rate Behaviour and Durable Goods Market Under Exchange Rate Uncertainty	Raghbendra Jha	Ashima Goyal
<b>1995-96 (M.Phil.)</b>				
40.	Dinabandhu Bag	The Economics of Pesticides Application in Agriculture and Environmental Damage	Jyoti Parikh A. Ganesh Kumar	
<b>1996-97 (Ph.D.)</b>				
41.	Chiranjib Gupta	Trade Environmental Policy Differences and Relocation of 'Dirty' Industries	Kirit S. Parikh Basudeb-Guha K	Manoj Panda
42.	Mita Chaudhary	Empirical Essays on Development Financial Institutions and Firm Financing in India	Subrata Sarkar	Jayati Sarkar R. Nagaraj
43.	Ibotombi S. Longjam	The Structure of Financial Savings in the Indian Household Sector	Raghbendra Jha	Ashima Goyal R. Ramanathan
44.	Mandira Sarma	Essays on Value-at-Risk	Susan Thomas Ajay Shah	Rajeeva L Karandikar
45.	Deba Prasad Rath	Endogenous Issues in the Money Supply Process of India	Raghbendra Jha	Ashima Goyal

Sr. No.	Name of Student	Thesis Topic	Supervisor/ Guide	Committee Members
46.	Jesim Pais	Production Units and the Workforce in the Urban Informal Sector: A Case Study from Mumbai	Madhura S. V.K. Ramachandran	Bibhas Saha
<b>1996-97 (M.Phil.)</b>				
47.	Deba Prasad Rath	Alternative Approaches to Money Supply Process: Theory and Evidence	Raghbendra Jha	
48.	Partha S. Chatterjee	R & D and Market Incompleteness	P.G. Babu	
49.	Nivedita Goswami	Industrial Determinants of Ownership: A Case Study of the Indian Corporate Sector	Jayati Sarkar	
50.	Soma Dey	Renegotiation and Incomplete Contracts: Efficiency Issues	P.G. Babu	
51.	Yashajit Saha	Employment, Wages and Productivity in Indian Public Sector	Jayati Sarkar	
52.	Ravi Prakash S.	Measuring Impact of Classification of Bombay Stock Exchange Group A Stocks	Ajay Shah Susan Thomas	
<b>1997-98 (Ph.D.)</b>				
53.	Rajib Das	Causes and Consequences of 1995-96 Liquidity Crunch in India	Veena Mishra	Subrata Sarkar R.Krishnan
54.	Kakali Kanjilal	Term Structure of Interest Rates: Some Macroeconomic Issues	Raghbendra Jha Ashima Goyal	Hiranyan M
55.	Bikram De	Essays on Business Groups	Jayati Sarkar P. G. Babu	Subrata Sarkar
56.	Sanjay K. Singh	Productivity & Efficiency in State Transport Undertakings in India: Determinants and Implications for Pricing	Raghbendra Jha	Ashima Goyal R.Ramanathan
57.	Abuzar Syed Moonis	Some Issues in Estimation of Beta	Ajay Shah Susan Thomas	Kausik Chaudhuri Jayati Sarkar
58.	Saurabh Ghosh	An Empirical Evaluation of IPOs: Pricing and Performance Evidence from the Indian New Issue Market	Subrata Sarkar	Jayati Sarkar Rajendra Vaidya
<b>1997-98 (M.Phil.)</b>				
59.	Syed Abuzar Moonis	Time Variations in BETA: Evidence From the Indian Stock Market	Ajay Shah Susan Thomas	
60.	Manasi Panshikar	Currency Crises and Contagion	Raghbendra Jha Subrata Sarkar	
61.	Kshitija Donde	Anticipated Money, Unanticipated Money and Real Effect: A Test of the Barro Proposition in the Indian Context	Raghbendra Jha	
62.	Sajal Ghosh	Three Studies on Indian Energy Sector	Kirit S. Parikh	

Sr. No.	Name of Student	Thesis Topic	Supervisor/ Guide	Committee Members
63.	Suhas Saha	Two Essays on Application of Supermodularity in Economics	P.G. Babu	
64.	Phanindra Goyari	Crop Cropping Pattern Changes in the North-Eastern Region of India, 1980-81 to 1994-94	A. Ganesh Kumar Madhura S.	
65.	Dipika Das	Openness and its Association with Productivity Growth in Indian Manufacturing	Kirit S. Parikh Basudeb Guha-Khasnobis	
66.	Ishita Gupta	Issues in Public Finance and Political Economy	Veena Mishra	Subrata Sarkar Bibhas Saha
67.	Jayan Jose Thomas	State Policy, Industrial Structure and Industrialisation: The Case of Kerala	V.K. Ramachandran Bibhas Saha	Madhura S.
68.	Haimanti Biswas	Analysis of Indoor Air Pollution in Rural Northern India: Patterns, Impacts and Preventive Measures	Jyoti Parikh	Kirit Parikh Subrata Sarkar
69.	Tirthankar C.P.	High Frequency Data in Finance: Issues and Applications in the Indian Context	Ajay Shah	Susan Thomas Subrata Sarkar
70.	Arvind K. Jha	Capital Mobility in Developing Countries	Ashima Goyal	Subrata Sarkar
<b>1998-99 (M.Phil.)</b>				
71.	Pallavi Chavan	Some Features of Rural Credit in India with Special Reference to Tamil Nadu: A Study of the Period after Bank Nationalisation	V.K. Ramachandran Madhura S.	
72.	Ganesh Anipindi	Two Essays on the Political Economy of Internal Armed Conflicts	P.G. Babu	
73.	Subhra Baran Saha	Causes and Consequences of Private Tutorials: Analysis and Policy Prescription	Bibhas Saha P.G. Babu	
74.	Sucharita Sinha	Female Work Participation in Rural India: A Case Study of Rural West Bengal, 1961-1991	V.K. Ramachandran Madhura S.	
75.	Bijan Jyoti Borah	Taxation of Electronic Commerce	Shikha Jha	
76.	Anurag Sharma	Revenue and Expenditure Nexus in Indian Public Finance	Raghbendra Jha Ashima Goyal	
<b>1999-2000 (Ph.D.)</b>				
77.	Sarika Kansal	Economic Analysis of Solid Waste Management Policy Alternatives and Instruments for Improved SWM in Mumbai	Kirit S. Parikh Jyoti Parikh	Sudhakar Yedla
78.	Sangeetha	Policy Reforms and Public Sector Enterprise Performance: The Indian Experience	Jayati Sarkar	Subrata Sarkar Rajendra Vaidya

<b>Sr. No.</b>	<b>Name of Student</b>	<b>Thesis Topic</b>	<b>Supervisor/ Guide</b>	<b>Committee Members</b>
79.	Subarna Samanta	Essays on Political Economy	P.G. Babu Bibhas Saha	Kausik Chaudhuri
80.	Santosh Kumar	Some Issues related to Open Electronic Limit Order Book Market	Ajay Shah Susan Thomas	V. Ravi Anshuman
81.	Rudra Sensarma	Deregulation, Productivity & Efficiency in Indian Banking	Subrata Sarkar Bibhas Saha	Jayati Sarkar
<b>1999-2000 (M.Phil.)</b>				
82.	Abhaysingh Chavan	Is there a Credit Channel for Monetary Policy in India in the Post Liberalisation Period?	Rajendra Vaidya	
83.	Sumana Chatterjee	Print Media and Quality of Governance: An Empirical Investigation of Indian States	Kausik Chaudhuri	
84.	Trivikraman Thampy	Corruption and Delay in the Provision of Subsidized Credit	Bibhas Saha	
85.	Kompal Sinha	Fiscal Interplay of Federal and Subnational Governments: Evidence and Strategies; Incentives and Impacts from India	Shikha Jha	Kausik Chaudhuri
<b>2000-2001(Ph.D.)</b>				
86.	Arijit Ghosh	Essays on CEO Compensation	Subrata Sarkar Jayati Sarkar	Bibhas Saha
87.	Ekta Selarka	Essays on Corporate Governance	Subrata Sarkar	Jayati Sarkar Sumon Bhaumik
88.	Sohini Mitra	Issues on Micro-Finance	Bibhas Saha Kausik Chaudhuri	
<b>2000-2001 (M.Phil.)</b>				
89.	Padmini Dasgupta	Labour Market Segmentation and Child Labour	Bibhas Saha	
90.	Sourabh Bikas Paul	Public Sector Job Reservation in India: A Search Theoretic Model	P.G. Babu	
91.	Pragya Shankar	Determinants of Foreign Collaboration Modes in Emerging Economies: Some Perspective from India	Jayati Sarkar	
92.	Sabyasachi Ray	Exploiting High-Frequency Data for the Estimation of Covariance Matrices	Susan Thomas Ajay Shah	
93.	Sindhu E. Menon	Cauvery River Conflict: An Analytical Narrative	P.G. Bau Jayati Sarkar	
<b>2001-2002 (Ph.D.)</b>				
94.	Rupayan Pal	Essays on Labour Contracts and Asymmetric Information	Bibhas Saha	Kausik Chaudhuri Subrata Sarkar

<b>Sr. No.</b>	<b>Name of Student</b>	<b>Thesis Topic</b>	<b>Supervisor/ Guide</b>	<b>Committee Members</b>
95.	Binay K. Ray	Technology Management in Indian Industry Problems, Prospects and Policies	B. Sudhakara Reddy	P. Balachandra A. Ganesh-Kumar
96.	Rijo M. John	Tobacco Regulations: Policy Options for India	Kirit S. Parikh A. Ganesh-Kumar	Joy De Beyer
97.	Alok Kumar	Trading Volume: Empirical Analysis of Indian Stock Markets	Kausik Chaudhuri Dilip M. Nachane	
98.	Rohit Mutatkar	Redistribution with Growth: Evidence for Social Groups in Maharashtra	Manoj Panda R. Radhakrishna	
99.	Ayan K. Pujari	Some Issues in Indian Agriculture	Kirit S. Parikh Kausik Chaudhuri	
100.	Saurabh Nath	Issues in Indian Foreign Exchange Market: A Market Microstructure Analysis	Ashima Goyal	Bibhas Saha Mridul Saggarr
101.	Nitin Kumar	Some Issues related to a Tax Collection	Kirit S. Parikh Bibhas Saha	
102.	Anuj Arora	VaR (Value at Risk) for Fixed Income	Susan Thomas Kirit S. Parikh	Ajay Shah
<b>2001-2002 (M.Phil.)</b>				
103.	Muneera Pookunju	Impacts of Foreign Direct Investment Flows in Maharashtra	M.H. Suryanarayana	
104.	Arun N. Sudheer	Government Expenditure and Economic Activity	Veena Mishra	
105.	Sonalee Suchismita	Foreign Reserves of India	Veena Mishra	
106.	Surajit Das	Productivity Growth in Indian Manufacturing: A New Look	Kausik Chaudhuri Manoj Panda	
107.	Jayesh Kumar	Corporate Firm Performance and Ownership Structure	Kausik Chaudhuri	
108.	Vinay Ramani	Privatization and Foreign Investment	Bibhas Saha	
109.	Nalin Tiwari	Capital Regulations and Bank Behaviour	Veena Mishra	
110.	Ishita Chatterjee	Incentive Contracts under Imperfect Information	Bibhas Saha	
111.	Richa Dhariwal	An Empirical Analysis of Indian Tourism Sector	Kausik Chaudhuri	
112.	M. Narasimha Rao	Urbanisation in India	B. Sudhakara Reddy	
113.	Anirban Acharya	Endogeneity of Political Regimes	Jayati Sarkar	
114.	Susmita Roy	Determinants of School Choice: Evidence from Two North-Indian States	Kausik Chaudhuri	
115.	Anand Pandey	Application of Life Cycles Assessment for Sustainability in India	Vinod K. Sharma	

# Students Batch 2003-04

## **M.Phil./Ph.D. Students (2<sup>nd</sup> Year)**

1. Ankita Agarwal
2. Jibonayan Ray Chaudhuri
3. Mary Cherical
4. Dwijendra Dwivedy
5. Chandra Kiran B.K.
6. Ashutosh Kumar
7. Pravin Kumar
8. G. Badri Narayanan
9. Jayashree Saha
10. Achintya Swaroop T
11. Vinod

## **M.Phil./Ph.D. Students (1<sup>st</sup> Year)**

1. Ranojoy Basu
2. Parantap Chatterjee
3. Tirthankar Choudhuri
4. Debanjali Dasgupta
5. Subhrajyoti Ghatak
6. Karthik Hari
7. G. Chidambaran Iyer
8. Amitabh Jha
9. Deepak Khatri
10. Manu
11. Nagendra Kumar Sajja
12. Vijay N. Yadav

## **M.Sc. Students (1<sup>st</sup> Year)**

1. Abhishek Anand
2. Pallavi Baral
3. Kavita Dwivedi
4. Pallavi Goyal
5. Naveen Kumar
6. Saurav Kumar
7. Rakesh Mookim
8. Gayatri Narayanan
9. Shivashish Nath
10. Ashutosh Nawani
11. Shailendra Pathak
12. Samarath Rajnaya
13. M.S. Prabhu Ram
14. Aditi Ravindranath
15. Mohan Rao Ronanki
16. Divyashri Sagar
17. Ratnesh Srivastava
18. Abinav Thakur

# Visitors at IGIDR

Academicians, policy-makers and practitioners in diverse fields broadly relating to development visited IGIDR during the year. Seminars by outside experts based within India and internationally, provide an

important forum for exchange of views and interaction on subjects of mutual interest. A table listing the topics of their presentations is provided below:

<b>Date</b>	<b>Name of Visitor</b>	<b>Title of Seminar</b>
9.4.2003	Dr. Paul Rayar, Arcilla Research, Netherlands	Resource Utilisation for Building and Construction.
17.4.2003	Dr. Meenakshi Rajiv, Institute for Social and Economic Change, Bangalore	Money and markets in a general equilibrium framework
25.4.2003	Dr. Y.V. Reddy, Executive Director, IMF	International Monetary Fund - Certain Emerging Issues
30.4.2003	Dr. Arjun Sengupta, Chairman, Centre for Development and Human Rights	Discussion in the area of Poverty and related issues.
12.5.2003	Dr. Sarbajit Sengupta, Professor, Vishwabharati University	Delegating Recruitment under Asymmetric Information
26.5.2003	Dr. Prabal Roy Chowdhury, Jawaharlal Nehru University	A Model of Grameen Bank
20.6.2003	Dr. Sriparna Bandopadhyay, BITS, Pilani	Semidefinite Linear Complementarity Problem
20.6.2003	Dr. Geetanjali Panda, Dept. of Mathematics, BITS, Pilani	Fractional Programming
20.6.2003	Dr. Praveen Kulshreshtha, IIM, Ahmedabad,	A Model of Rationing by Waiting in the Presence of Bribery
30.6.2003	Prof. Alok Bhargava, Dept. of Economics, University of Houston	Coliforms in Water and Haemoglobin Concentration are Predictors of Gastrointestinal Morbidity of Bangladeshi Children aged 1 - 10 years
21.7.2003	Professor M.R. Saluja, IDF, New Delhi	A Social Accounting Matrix for India
18.8.2003	Dr. (Mrs.) Girija Rajaram, Research Scientist and Science Communicator	Antarctica, The Giant Deep-Freeze, and its Socio-Economic Relevance to India
26.8.2003	Professor Stephen Gelb, Executive Director, the EDGE Institute, South Africa	The WTO and the Pharma Sector
8.9.2003	Professor Nelson Perera, Senior Lecturer & Director of Graduate Studies, School of Economics and Information Systems, University of Wollongong, Australia	Macroeconometric Modelling in Sri Lanka: Review of Models and Challenges in the Future
18.9.2003	Dr. Sanjeevan Kapshe, Professorial Fellow, Railway Staff College, Vadodara	Real Options Approach to Appraisal of Infrastructure Projects

<b>Date</b>	<b>Name of Visitor</b>	<b>Title of Seminar</b>
22.9.2003	Miss Piya Mahtaney, Sr. Feature Writer, Economic Times	Liberalisation and Economic Reform : Some facets of the South-East Economic experience and lessons for India
3.10.2003	Professor Jenik Radon, University of Hamburg, Germany	Contractual Hybris—the Application of Anglo-American Legal Methods/Pressures to Developing Nations – are there Ethics?
10.10.2003	Dr. Edwin Young, Economic Research Service, U.S. Dept. of Agriculture	Potential Market Impacts of US Farm Policy: Current and Future
10.10.2003	Dr. Mary Burfisher, Economic Research Service, U.S. Dept. of Agriculture	The U.S. experience on the impacts of Decoupled Payments.
10.10.2003	Dr. John Wainio, Economic Research Service, U.S. Dept. of Agriculture	Market Access Proposals: Addressing the Concerns of Developing Countries
3.11.2003	Dr. Csaba Csaki, Senior Adviser (Strategy and Policy) Rural Development Department, The World Bank.	Rethinking Rural Development – the new World Bank Rural Development Strategy
12.12.2003	Dr. Anoop Singh, IIT Kanpur	Emerging Competitive Scenario in Indian Power Sector.
15.12.2003	Dr. Mukul Majumdar, Cornell University,	Closing the Window
8.1.2004	Dr. Ricardo Hausman, Kennedy School of Government, Harvard University.	Currency Denomination of Debt and Financial Fragility
19.1.2004	Dr. Indraneel Dasgupta, University of Nottingham	Arranged Marriage, Dowry and Female Literacy in a Transitional Economy
21.1.2004	Dr. Nirmal Chandra, IIM, Calcutta	WTO's Patent Regime: Issues from the Perspective of both Industrial and Developing Economies
22.1.2004	Dr. Nirmal Chandra, IIM, Calcutta,	Fiscal Policies, Foreign Direct Investment and Growth.
27.1.2004	Dr Wing Thye Woo, University of California at Davis	The Travails of Current Macroeconomic and Exchange Rate Management in China: The Complications of Switching to a New Growth Engine



# Library and Information Services

The library of the Institute is rapidly building up to be one of the leading professional research and reference libraries in the country. All bibliographic details of books, journals and CD-ROM databases are accessible through the campus-wide Ethernet network. The library has over 70,000 printed documents and it subscribes to over 490 national and international journals.

Some of the important CD-ROM databases subscribed by the library include:

- Econlit
- EPW Annual Survey of Industries
- Global Finance Development
- International Financial Statistics
- Social Science Citation Index, 1997
- World Development Indicators

It has established contacts with over 100 national and international organizations for exchange of the Institute's publications and inter-library loan arrangement. The Library also has an account with BLDS under GDNET program to meet its inter-library loan requirements.

The Library's homepage provides links to various websites, which are of importance to economists. Access to electronic journals, union catalogue of periodicals, Library catalogue, journal holdings, current journals, etc have also been provided from this homepage. The recent inclusion on

**Indian Economy** provides links to various Internet resources related to this topic.



The Library has developed an online **Union catalogue** of journal holdings, the data for which comes from 14 major business and economics libraries of the country. The catalogue has provided a platform for sharing resources among libraries.

The Library has given due consideration to the most modern approach in the field of librarianship. The Electronic Library is about to bloom with an initial collection of 1000 documents and is accessible through the campus network. The aim of this **Electronic Library** is to collect articles, discussion/working papers, books, etc. which are available in the public domain. It also intends to have in its collection all the theses submitted to the Institute.

# Computer Services

## Introduction

The computer facilities at IGIDR include state-of-the-art technology Computer Centres, E-Class / Lecture room with the latest Video conferencing facility and complete multimedia setup in the Seminar halls and Conference Hall. The Computer Centres are equipped with a variety of Hardware and networking equipment, Software and Help Desk facilities. The whole office campus and residence complexes are networked by Ethernet based LAN using fiber optic and Thick Ethernet backbone. The Institute has a 1(One) MBPS Internet leased line connection.

## Hardware

The computer Centre is equipped with high-end Compaq Alpha servers with RAID implementation, CISCO switches and routers for campus wide network connectivity, Sun Ultrasparc servers, and Intel Pentium based multimedia workstations. The Centre also has a FISC CDNET server to provide CDROM based databases and applications to all the researchers and academicians. The Centre is also equipped with a Digitizer for GIS applications.



All the faculty and staff offices are provided with Intel Pentium based PCs and HP Deskjet printers. Additionally, each Office/Research block, Library and the Computer

Centre are provided with common high-speed Network HP Laser printers. The Centre also provides total backup solutions for the users' data through various backup devices viz., DAT, CD RECORDER, OPTICAL DISK and CATRIDGE TAPE. Color HP Scanner and Digital Video Cameras have been provided to assist the users in creating multimedia presentations.

## Operating Systems and Software.

The Alpha servers are powered by Compaq Tru64 Unix, Sun Ultrasparc servers are with Solaris 2.6 OS and the workstations are loaded with various flavors of Linux viz., SuSe, RedHat, etc. The Windows machines are loaded with Win2000/NT/98. OS. The computerised library system uses SCO Unix and the application software running is LIBSYS (A library management System).

For its researchers and students, the Centre provides all standard econometrics and statistical packages like SAS, GAUSS, TSP, STATA, MICROFIT, LIMDEP, DEA, SHAZAM, GAMS, MATHEMATICA, VISUAL FORTRAN, LISREL, Expert Choice 2000, etc., and office automation packages like STAROFFICE, MSOFFICE, LATEX under Unix/Linux and Windows environments. GIS Software like SPANs and MAPINFO are available to carry out GIS related projects

In addition to the above software the Institute subscribes to corporate databases like PROWESS, INDIA TRADE by CMIE, CLINE OLE by Capital Market, and National and International Database like ASI, WBI, IFS, ECONLIT, SCSI, FAO, GDE etc.

## Other Activities.

The Computer Centre conducts various training and orientation seminar/lectures on several computer related topics, software, databases and on new IT technologies implemented at the Institute to enhance and upgrade the computer skills of the user community of IGIDR.

# Faculty and Areas of Interest

## Director

**R. Radhakrishna**, Ph.D. (Economics) Gokhale Institute of Politics and Economics, University of Pune.

## Senior Professor

**Dilip M. Nachane**, Ph.D. (Economics), Bombay University, Mumbai.

## Professor Emeritus

**Kirit S. Parikh**, Sc.D. (Civil Engg.), M.S. (Economics and Engg), MIT, USA.

## Professors

**Ashima Goyal**, Ph.D. (Economics), University of Mumbai.

**Shikha Jha**, Ph.D. (Economics), Indian Statistical Institute, New Delhi.

**Veena Mishra**, Ph.D. (Economics), University of Western Ontario, Canada.

**Manoj Panda**, Ph.D. (Economics), Indian Statistical Institute, New Delhi.

**B. Sudhakara Reddy**, Ph.D. (Energy Management), Indian Institute of Science, Bangalore.

**Bibhas Saha**, Ph.D. (Economics), University of Southern California, USA.

**Vinod K. Sharma**, Ph.D. (Environment Science and Engineering), Indian Institute of Technology, Mumbai.

**P.V. Srinivasan**, Ph.D. (Economics), Indian Statistical Institute, New Delhi.

**M.H. Suryanarayana**, Ph.D. (Economics), Indian Statistical Institute, Kolkata.

## Associate Professors

**P.G. Babu**, Ph.D. (Economics), Indian Institute of Science, Bangalore.

**A. Ganesh-Kumar**, Ph.D. (Economics), Indian Statistical Institute, Bangalore.

**R. Krishnan**, Ph.D. (Economics), University of Mumbai.

**R. Nagaraj**, Ph.D. (Economics), Centre for Development Studies, Thiruvananthapuram.

**K.V. Ramaswamy**, Ph.D. (Economics), University of Delhi.

**Jayati Sarkar**, Ph.D. (Economics), University of Southern California, USA.

*Consumer Demand, Food Security and Poverty Alleviation.*

*Econometrics, Monetary Economics, International Trade and Finance.*

*Development Policy, Policies and Planning Models, Technology Policy, Environmental Policy and Agricultural Policy.*

*Institutional Macroeconomics, Development and Finance, Theory and Applications.*

*Public Economics, Agricultural Economics and Development Economics.*

*Macroeconomics, Monetary Economics, International Trade and Finance.*

*Applied General Equilibrium, Environmental Economics, Issues in Poverty and Human Development.*

*Energy Systems, Policy and Planning, Demand Side Management, Forestry, Agriculture and Transport Systems, Natural Resource Management, Energy Efficiency.*

*Microeconomics, Industrial Organisation, Labour Economics.*

*Local, Regional and Global Environmental Issues.*

*Public Economics, Food Policy, Economics of Poverty and Inequality.*

*Consumer Demand Analysis and Development Economics.*

*Economics of Information, Non-cooperative Game Theory, Environmental Economics.*

*Agricultural Economics, Applied General Equilibrium Modelling, Econometrics, International Trade Competitiveness and Finance.*

*Time Series Methods, Econometrics.*

*Development Economics, Industrial Economics.*

*Small-scale Industry, Technological Change and Productivity Growth, Development Economics.*

*Institutional and Economic Development, Public Policy Analysis, Industry Studies.*

**Subrata Sarkar**, Ph.D. (Economics), University of Southern California, USA.

**Ajay Shah** (upto 31/12/2003), Ph.D. (Economics), University of Southern California, USA.

**Rajendra R. Vaidya**, Ph.D. (Economics), University of Poona.

**Assistant Professors**

**Kausik Chaudhuri**, Ph.D. (Economics), State University of New York at Albany.

**Srijit Mishra**, Ph.D. (Economics) Centre for Development Studies (Thiruvananthapuram).

**Vijay Laxmi Pandey**, Ph.D. (Agricultural Economics), G.B.Pant University of Agriculture & Technology.

**Susan Thomas**, Ph.D. (Economics), University of Southern California, USA.

**Sudhakar Yedla**, Ph.D. (Environmental Engineering), Indian Institute of Technology, Kharagpur.

**Visiting Professor, Fellow, Consultant, etc**

**Barnita Bagchi**, Visiting Research Associate (upto 3/2/2004), Ph.D. (English & Women's Studies), University of Cambridge.

**Aldas Janaiah**, Visiting Fellow, Ph.D. (Agricultural Economics), Banaras Hindu University, Banaras.

**Praveen Kulshreshtha**, Visiting Assistant Professor (upto 26/3/04), Ph.D. (Economics), Cornell University, USA.

**Anitha Ramanna**, Visiting Research Associate (upto 11/3/2004), Ph.D. (International Studies), Jawaharlal Nehru University, New Delhi.

**Shovan Ray**, Visiting Fellow/Consultant, Ph.D.(Economics), University of Cambridge.

**Nirmal Sengupta**, Visiting Professor, Ph.D., Indian Statistical Institute, Calcutta & Delhi.

*Econometrics, Empirical Industrial Organisation.*

*Financial Economics, Econometrics.*

*Industrial Economics, Macroeconomics and Corporate Finance.*

*International Economics, Development Economics, Political Economy, Applied Econometrics. Development Studies, Health Economics.*

*Agricultural Economics, Rural Development Studies, Environmental Economics. Applied Econometrics, Finance.*

*Environmental Technology, Economics of Environmental Degradation, Waste Management Policies, Urban Transportation.*

*Gender Studies, Education, Social Capital, Literature and Development.*

*Agricultural Economics, Impact Assessment Studies, Research Priority Setting in Agriculture.*

*Industrial Economics, Applied Microeconomics Theory, Game Theory and Econometrics.*

*International Political Economy, Intellectual Property Rights, WTO and India.*

*Poverty, Human Development and Social Sector Issues.*

*New Institutional Economics, Law and Economics, Ecological Economics, Water Resource Management.*

# Campus Life



Begin/end your day with a cool dip

Fun and frolic in the park



Students in a picnic mood



*Indira Gandhi Institute of Development Research*

# Financial Statement

Details of the Income and Expenditure during the year 2003-2004 are indicated below:

<b>Income</b>		<b>Rs. In Lakh</b>	
a)	Contribution from Reserve Bank of India	634.79	
b)	Fees received from students	5.90	
c)	Income from Projects and Consultancies	49.81	
d)	Interest on bank deposits	2.24	
e)	Miscellaneous receipts	<u>19.76</u>	<u>712.50</u>
<b>Expenditure</b>			
a)	Revenue Expenditure		
i)	Salary and maintenance expenditure	486.47	
ii)	Library Books and Journals	<u>111.99</u>	598.46
b)	Capital Expenditure		
i)	Computer System	10.18	
ii)	Furniture/Office Equipments (net)	<u>103.86</u>	<u>114.04</u>
	Total of (a) and (b)		<u>712.50</u>





## Indira Gandhi Institute of Development Research

(A Deemed University rated A++ by NAAC)

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