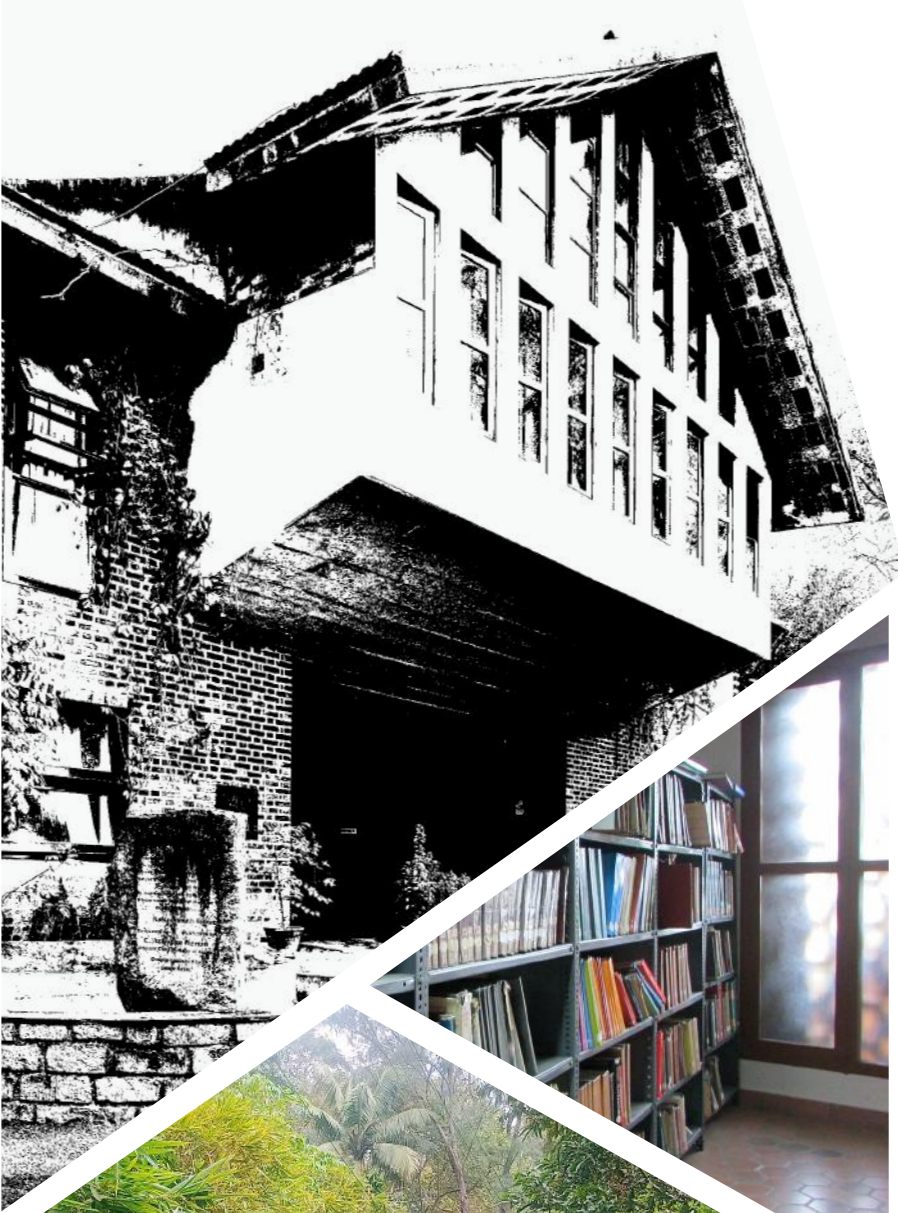


**ANNUAL
REPORT
2022 - 23**



CENTRE FOR DEVELOPMENT STUDIES
THIRUVANANTHAPURAM, KERALA
(Under the aegis of Govt. of Kerala and ICSSR, Govt. of India)



12th Dr. P K Gopalakrishnan Memorial Lecture: Professor Sonia Bhalotra, University of Warwick, Coventry, UK on 16th September, 2022.



Professor Kunal Sen, Director, UNU-WIDER, Helsinki, Finland delivering The 13th B.G.Kumar Memorial Lecture on 21st November, 2022.



Norwegian Training Programme on “State and Civil Society in Development and Environmental Governance in India”, 30th Aug. to 3rd Sept., 2022.



Prof. Santishree Dhulipudi Pandit, Vice Chancellor, JNU addressing the CDS community on 30th August 2022.



Online Discussion on ‘WTO Agreement on Fisheries Subsidies’ held on 16th July, 2022.



Governing Body Meeting of CDS held on 30th August 2022.



Professor Madhura Swaminathan, Indian Statistical Institute, Bangalore with the participants of ICSSR Sponsored Invited Lecture Series on ‘Challenges and Issues in Indian Agriculture’ held during May 9 - 11, 2022



Mr. Nikas Scheidt, Karlsruhe Institute of Technology, Germany delivering a Seminar on 14th September, 2022

CENTRE FOR DEVELOPMENT STUDIES

ANNUAL REPORT
2022 - 23



Centre for Development Studies

(Under the aegis of Govt. of Kerala and Indian Council of Social Science Research)

Prasanth Nagar, Ulloor, Thiruvananthapuram- 695011, Kerala, India

Tel: 91-471- 2774200, Website: www.cds.edu

GOVERNING BODY

(As on 31 March 2023)

Prof. Sudipto Mundle Senior Advisor, National Council of Applied Economic Research & Visiting Faculty, Indian School of Public Policy, New Delhi	Chairman
Prof. Sunil Mani Director, CDS, Thiruvananthapuram	Convenor
Prof. V. P. Mahadevan Pillai Vice Chancellor, University of Kerala, Thiruvananthapuram	Member
Prof. Santishree Dhulipudi Pandit Vice-Chancellor, Jawaharlal Nehru University, New Delhi.	"
Shri. Biswanath Sinha IAS Addl.Chief Secretary, Dept. of Planning & Economic Affairs, Govt. of Kerala, Member Secretary, Kerala State Planning Board	"
Prof. Virendra Kumar Malhotra Member Secretary, Indian Council of Social Science Research, New Delhi	"
Prof. Chiranjib Sen Visiting Professor, Azim Premji University & Institute of Public Policy, National Law School of India University	"
Prof. Ramesh Chand Member, National Institution for Transforming India (NITI) Aayog	"
Prof. Ram Singh Dept. of Economics, Delhi School of Economics, University of Delhi	"
Prof. Satish Chandra Garkoti Professor of School of Environmental Science & Rector II, Jawaharlal Nehru University, New Delhi	"
Prof. Gabriel Simon Thattil Professor & Director, Internal Quality Assurance Cell (IQAC) Department of Commerce, University of Kerala, Trivandrum	"
Prof. Praveena Kodoth Professor, CDS, Thiruvananthapuram	"
Prof. J. Devika Professor, CDS, Thiruvananthapuram	"
Prof. P. Sivanandan Honorary Fellow, CDS, Thiruvananthapuram	"
Prof. Amit Bhaduri Honorary Fellow, CDS, Thiruvananthapuram	"

Layout and Design: Ajikumar A R

Printed at St. Joseph Press, Thiruvananthapuram

The Centre gratefully acknowledges support received from:



Government of Kerala



Niti Aayog

नीति आयोग
National Institution for Transforming India

NITI Aayog, Govt. of India

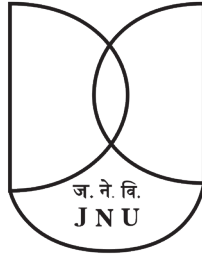


ICSSR, Govt. of India



ज्ञान-विज्ञान विमुक्तये

UGC



JNU



University of Kerala



RBI



Kerala State Planning Board

Kerala State Planning Board



Ministry of Commerce and Industry
Government of India

Ministry of Commerce and Industry, Govt. of India

Several other Central and State Government agencies and institutions have supported the Centre's academic and research activities.

We are grateful to them.

HONORARY FELLOWS

(As on 31 March 2023)

Zachariah K.C.*	Former Senior Demographer, The World Bank, Washington D.C.
Amit Bhaduri	Emeritus Professor, Jawaharlal Nehru University, New Delhi
Mathew E.T.	Former Professor and Head, Department of Economics, University of Kerala
Jayachandran T.N.	Former Vice Chancellor, Calicut University, Kerala
Oommen M.A.	Former Professor and Head, Department of Economics, University of Calicut, Kerala
Damodaran A.D.**	Former Director, Regional Research Laboratory, Thiruvananthapuram
Rao G.N.	Former Fellow, CDS
Thomas Isaac T.M.	Former Fellow, CDS
Mridul Eapen	Former Fellow, CDS
Kannan K.P.	Former Director and Fellow, CDS
P. Sivanandan	Former Fellow, CDS

* Passed away on 18 January 2023

** Passed away on 13 January 2023

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1

OVERVIEW

The Centre for Development Studies (CDS) Thiruvananthapuram, Kerala was conceived as a premier social science institution to promote research and teaching in applied economics and development studies. The impetus for its setting up came from two sources. At the national level, in 1969, the Government of India established the Indian Council of Social Science Research (ICSSR) to review and promote social science research in the country. This was primarily sought to be achieved through setting up 'Centres of Excellence' in a context where the university system was found lacking. At the regional level, the then Government of Kerala headed by Shri C. Achutha Menon decided to actively support research in development issues with a view to provide the necessary intellectual inputs for Kerala's development initiatives. Shri Menon invited Professor K.N. Raj, a renowned economist with the Delhi School of Economics, to help establish an institution that could fulfill this objective. Professor Raj accepted the invitation and took the initiative to set up the CDS as an autonomous institution with funding from both the ICSSR and the Government of Kerala.

CDS was registered as a Society in September 1970 under the Travancore-Cochin Literary, Scientific and Charitable Societies Act. Since its inception, the Centre has undertaken a series of innovations beginning with the use

of low cost building construction techniques. CDS was fortunate to have Laurie Baker, a radically innovative architect, visualise and design its campus and buildings in a distinctive but cost-effective manner. The architectural splendour of the CDS campus is the result of this vision and effort of Laurie Baker. Other innovative beginnings include launching an inter-disciplinary M.Phil Programme affiliated to Jawaharlal Nehru University (JNU), New Delhi and a Ph.D programme affiliated to both JNU and University of Kerala, capacity building through training programmes in varied areas of development studies including decentralization, demography, gender and development, human resources, and social security, and acting as consultants to the government in development planning. Another major milestone for CDS in recent years is the launch of its MA programme in Applied Economics in 2012. The introduction of the MA programme marked a paradigm shift in CDS' academic profile. The SAARC Scholarship available for MA students, launched in 2016-17 provides five scholarships to students from SAARC countries that enroll in the MA programme. This is made possible by the generous funding of the State government which enables the MA programme to go international.

While the teaching programmes of the Centre have attracted students of diverse backgrounds from across the country, the training programmes have drawn participants from all over the world. The research activities of the Centre have thrown up new insights on development issues at the regional, national and international levels. The intellectual ambience of openness to ideas and plurality of perspectives that evolved over the years have contributed to defining the intellectual tradition of CDS.

Recognizing the value of the research carried out at the Centre, the state and central governments, and varied other bodies, national and international, including ICSSR, Planning Commission, Reserve Bank of India, United Nations Fund for Population Activities and other U.N. Agencies and the Government of Netherlands offered liberal financial assistance. Such assistance was accepted after ensuring that the Centre's academic autonomy is retained intact, coupled with the visionary leadership of the founders and a matching dedicated service put in by all segments of the staff and students helped the Centre to create and maintain a world-class infrastructure in terms of buildings, library, and computer facilities, and to find its own niche, in the world of development studies.

The main activities of the Centre are research, teaching and training. Right from the beginning, a strong all-India character in terms of both faculty and student composition was seen, as well as being very much internationalized, attracting a large number of distinguished academic visitors from abroad in addition to several tie-ups with international institutions, national institutions and institutions at the state level. Presently, CDS has tie-ups with eleven international institutions, nine national institutions and three institutions at the state level.

During a span of 50 years, CDS has crossed several milestones. During the 1970s, although a large part of academic research conducted at CDS was devoted to issues pertaining to the national economy, it was natural that CDS researchers devoted significant attention to issues pertaining to the economy and society of Kerala, given CDS's location. The widely acclaimed Kerala model of development was an outcome of academic research conducted at CDS during this time. Over the past decades, CDS has diversified its research into a large number of areas. Some of the topics that received significant attention in the 1970s and 1980s are no longer in vogue, while new areas of research concern have emerged in the field of development studies. It is also worth mentioning that the Centre received prestigious endowment funds from different government agencies to set up dedicated research units in recent years to focus on specific areas like local government, migration and plantation development. Needless to mention, CDS has been attracting sponsored project research funding from several national and international organizations for researching various dimensions of development.

The Centre started with a very small team of five Fellows in 1970. Presently the CDS has a regular faculty strength of 20. Further, it has 18 Visiting Professors/Fellows from across the country and abroad and 25 Administrative Staff.

The state-of-the-art CDS library is one of the largest social science libraries in India with over 1,50,000 titles in economics and related disciplines and subscribing to about 400 professional print journals and around 3500 e-journals. The IT wing of the Centre provides technical support to the faculty, students, library and Administration. The K N Raj Library is fully computerized using the open source software "Koha" and for

the users convenience the library catalogue [OPAC] is available online at the link: <https://cdslibopac.informaticsglobal.com/> Searches can be made by author, title, subject, class number, publisher or words in title and boolean search. CDS Information Repository (Digital Library) is installed to capture / preserve digital content and make them accessible to scholars and faculty. It can be accessed here <http://14.139.171.199:8080/xmlui/community-list>.

Outreach by the CDS comprises activities other than research and training programmes. It is now almost an annual feature that the Centre conducts a brief training programme for college teachers, the Teaching Innovations Programme in Economics (TIPE). The programme aims to equip college teachers with pedagogic skills and the ability to incorporate new developments into their courses, and to assist them in putting together course material.

CDS is also judged as the best among the 24 ICSSR research institutes in the country on the basis of its research publications during the 2011-2020 period.

Personnel

With a view to attract and retain faculty at CDS, seed money for research support to the tune of 4 lakhs per faculty member for a cycle of five years is being followed. This year several faculty members availed of this facility. A reservation policy for faculty recruitments at CDS is in place at all the three cadres of teaching positions, namely Assistant Professor, Associate Professor and Professor. This year Dr. Beena P.L. was promoted to the post of Professor under the Career Advancement Scheme proposed by ICSSR with effect from 1st November 2020. Seven staff members were also promoted with effect from 01.04.2022.

Professor K J Joseph, Professor of the Centre was relieved from the service of the Centre with effect from July 18, 2022 (Voluntary retirement from the Centre). Dr. Tirtha Chatterjee was relieved from her duties as Assistant Professor of CDS at the close of the day on 4th of August 2022 (Resignation).

Academic Programmes

The two programmes - MA in Applied Economics, PhD in Economics - are the two pillars of the Centre's academic activities. The MA and PhD degrees are awarded by Jawaharlal Nehru University (JNU). To bring about more international exposure to research students, the PhD Internship Abroad (PIA) programme launched and it enables PhD scholars to spend time in research work at an institute of repute in any part of the world. In 2014 CDS introduced an Integrated MPhil/PhD programme along the lines of the regulations of Jawaharlal Nehru University. Following the New Education Policy 2020, CDS has decided to discontinue the MPhil programme. 12 candidates were admitted in 2018 for the Integrated MPhil/PhD programme. As on 31st March 2023, all the 12 students submitted their MPhil dissertations. One student discontinued from the PhD Programme and the other 11 students got provisional admission to the PhD Programme.

In the year 2022-23, 8 scholars were admitted for the Ph.D Programme and 24 students for the MA programme. The total number of students pursuing their doctoral research during the year was 43. Six scholars were awarded with Ph.D degree. Research Affiliation has been granted to 2 scholars during the year.

To bring about more international exposure to research students, the PhD Internship Abroad (PIA) Programme launched in 2016-17 enables PhD scholars to spend time

in research work at an institute of repute in any part of the world. Two PhD Scholars, Mr. Binod Kumar Behera and Mr. Basit Abdullah were selected for this programme during the year.

The MA programme is now into the tenth batch. For the academic session 2022-23, 583 candidates applied for admission of which 11 opted Guwahati, 17 opted Hyderabad, 131 opted Kolkata, 89 opted Kozhikode, 176 opted New Delhi, 46 opted Pune and 113 opted Thiruvananthapuram as their centre for Entrance Test. A total of 377 Candidates appeared for the entrance test and finally 24 students were selected to joined the programme.

The SAARC scholarship for MA students, launched in 2016-17 provides five scholarships to students from SAARC countries that enrol in the MA programme. The SAARC Scholarship is made possible by the generous funding of the State government which enables the MA programme to go international. One application was received for MA Applied Economics Programme this year. The Committee interviewed the candidate and selected Mr. Sonu Chaudhary from Nepal for admission. Later he discontinued from the programme.

Research

Research at the Centre extends beyond pure academic research and focuses on policy oriented research that acts as important academic input for informed policy making. This has been a part of CDS's mission right from its inception and this component of research often accounts for a significant share of faculty's research time. Many of these policy research outputs may not necessarily take the form of academic publications. The Centre published 3 Books (one is forthcoming), 36 research papers

and articles in Journals, 8 Working Papers and 3 Monographs and 2 Policy Papers in 2022-23.

By agreement among the faculty, the research output of the Centre is presented here under the rubrics, Culture and Development; Decentralisation and Governance; Gender and Development; Human Development, Health and Education; Industry and Trade; Innovation and Technology; Labour, Employment and Social Security; Macroeconomic Performance; Migration; Agriculture and Plantation Crops; Politics and Development and Other Studies. The studies are listed individually with abstracts in Chapter II.

Research Projects / Sponsored Studies

The CDS faculty remained actively engaged in conducting sponsored research projects during 2022-23.

One policy brief on 'Make in Kerala' was submitted to the Minister for Finance, Government of Kerala and on the basis of which a policy has been initiated and announced in the budget for Kerala for the year 2023-24.

Two projects under the theme *Decentralisation and Governance* were completed this year. The study '*Disciplinary vs. Neoliberal Governmentality? Understanding Agency in the Pallichal Panchayat*' funded by RULSG, CDS was an attempt to make sense of politics and agency of the residents of the Pallichal panchayat who have been sharply polarized, at least since 2014, around the issue of intensifying granite mining in the sprawling hill adjoining the panchayat, Mookkunnimala. It was published in the RULSG series volume on Ecological Challenges and Local Self-Government Responses No. 4 entitled '*Cronyism, Development, and Citizenship: A Study of the*

Effects of Quarrying in the Pallichal Panchayat, Thiruvananthapuram (pp. 67-109). Another study, *Democratic Decentralisation in Kerala: A Critique of Recent Experience* proposes to analyse the course correction introduced in the decentralisation experiment during the 13th five year plan period, focussing mainly on the endeavour to save the people's planning process from the threat of bureaucratic capture. This analysis is important because the state is now preparing to launch a new five year plan (Fourteenth Plan).

An ongoing study under the theme *Gender and Development*, on '*Child care and educated women's labour market behaviour: Evidence from Kerala*' funded by JPAL seeks to explore the potential for increase in women's employment through an intervention that provides acceptable child care at affordable cost. Affordable good quality child care may have wider benefits as it could provide children with valued social and learning skills. A study planned for the year, '*Precarious Work, Women and the Pandemic: Understanding the Sociology of Covid-induced Livelihood Vulnerabilities*' aims to bring out the impact of the Covid-19 pandemic and the lockdown measures on employment and livelihoods of low-income women workers employed in the informal service sector. Also to understand how the pandemic impacts the relations between the low-income women workers and their employers. More specifically, to understand how the worker's pre-existing material conditions, their social and spatial realities influenced the negotiations between the employers and the workers during the pandemic.

Under the theme *Human Development, Health and Education*, two projects are ongoing. A study '*Intergenerational Mobility and Collective Articulation of Rights: A Case study of Mala Araya Tribal Community in Kerala*'

explore the intergenerational mobility of settled-agriculturist tribal groups Mala Araya, the factors that led Mala Araya's intergenerational upward mobility, if any, and how far the community is able to sustain the mobility at present. By analyzing their developmental experiences this study aims to gather inferences, if any, for the policy formulations for the other socially-backward groups in the state. Another study '*Information and communication technology and female employment in India*' shows that the main drivers of low female participation in the workforce in India are external factors such as cultural norms, household responsibility, socio-economic factors, crime rates and stigma attached to working outside homes and it is conceivable that ICT adoption may act as an effective instrument in boosting female labour force participation by lowering these barriers that are beyond her control. The ICT adoption could directly increase labour market participation and quality of work through timely availability of important information, lower job search efforts and costs.

Eight Projects were completed under the theme *Industry and Trade*. The study '*Make in Kerala: Towards identifying a set of industrial products that are suitable for local manufacturing*' funded by Kerala Migration Research Unit, Govt. of Kerala aims to identify a set of products which Kerala is currently importing from the rest of India and the world and which, given its importance for domestic consumption, can be manufactured within the state. The study accomplishes this by analysing Kerala's trade with the rest of India and the world using the newly available E-Way bills data. The report was submitted to the Minister for Finance, Government of Kerala and on the basis of which a policy has been initiated and announced in the budget for Kerala for the 2023-24. Another study '*Impact of policy on Mobile manufacturing in India*' summarize the mobile manufacturing

paths taken by four countries – South Korea, Taiwan, China, and Vietnam – and infer few policy lessons that may be useful for India's journey. The local procurement is not a given, investment in indigenous standards & technologies by the government, and focus of local mobile firms on downstream activities may help India in its aim of becoming a major mobile manufacturing destination. A study '*Liberalisation, Resource Allocation and Aggregate Productivity Growth: A Study of Indian Manufacturing Industry*' sponsored by ICSSR examines the impact of liberalised policy regime introduced since 1991 on the productivity growth of Indian manufacturing industry. The study focuses on the role of resource allocation from less productive to more productive firms as well as from non-exporting to exporting firms in industry level productivity growth. Another study '*Make in Kerala*' funded by Research Programme on International Migration from Kerala, CDS shows that The Make in Kerala initiative is not rhetoric but an essential and logical step to industrialize a late-industrializing state such as ours. As argued, if taken to its logical conclusion, the project can bring down the state's trade deficit and provide its educated youth with an opportunity to get employed in their own state.

Under the theme '*Innovation and Technology*' six projects were completed. The study '*Diffusion of digital payments in India, 2011-12 through 2020-21: Role of its sectoral system of innovation*' shows that the rate of growth of digital payments have actually declined during the decade despite the fact two of the three building blocks of the sectoral system have been strengthened. Also, public policies from both the monetary and fiscal authorities do not appear to have had any effect on the third building block, namely the demand for digital transactions. This study was published in Asian Journal of Technology Innovation. A study '*Diffusion of Digital payments in India: A tale of two*

technologies' compare the diffusion/usage of two digital technologies - card payments and Unified Payments Interface (UPI) from India - using the functions of innovation systems approach and the microeconomic literature on technology adoption. Another study '*Innovation performance of two high-technologies industries from India, A comparative analysis of India's Pharmaceutical industry vis-a-vis computer software services industry*' assess how the two industries have negotiated the challenges imposed by changes in international governance rules affecting intellectual property rights. This is accomplished by evaluating the innovative performance of the two industries. The analysis would distil out some industry policy priorities to improve their respective innovative performance.

A completed study '*Child care and Educated Women's Labour Market Behaviour: Evidence from Kerala*' under the theme '*Labour, Employment and Social Security*' seek to develop a proposal to initiate a good quality and affordable child care intervention with the potential to increase women's labour market participation. To have a better understanding of the extent and nature of the constraint posed by child care responsibilities to women's work participation conducted primary research in a rural and urban ward in the Ernakulam district in Kerala. The studies '*Labour and Employment in the Tea Sector*', '*Labour and employment in the coffee sector*' etc. looks into the employment and working conditions of workers in the tea sector and coffee sector respectively. Another completed study was '*Wage Productivity decoupling in India*'. Comparing between regular and casual wage growth models, it can be seen that as the wage gap between regular wage workers and casual wage workers widen the demand for casual wage workers increases while that of regular wage workers decline. Conversely as the wage gap declines, it is the growth of wages of regular workers that increases

in comparison to the casual wage workers. This indicated that the segmented nature of the labour market is probably diluting. An ongoing study *'Return Migration and Economic Reintegration in Kerala'* sponsored by Kerala in the World Economy unit at CDS, instituted by Government of Kerala, examines the trends, patterns and nature of return migrants to Kerala. It further looks into the factors that determine the participation in the local labour market after they return. In the end a review of return migrant policies is attempted to open policy choices for the local economy. New research plan initiated *'Intergroup inequality in the labour market'* would look into the question of labour market inequality including mobility questions.

Six studies were completed under the research theme *'Macroeconomic Performance'*. The study *'Modern services led growth and development in a structuralist dual economy: long run implications of skilled labor constraint'* examines the role of expansion of skilled labor force for modern services led growth and development in economies with low average educational attainment. The study *'Natural disasters and economic dynamics: Evidence from the Kerala floods'* published as CDS Working paper series No.508. Another study *'Long-term Trends in Revenue Mobilisation of the Indian States in the Context of Indirect Tax Reforms'* sponsored by the ICSSR would look into whether there is any significant deviation in the movement of own tax revenues by the states in view of the implementation of GST since 2017. An ongoing study, *'Demand-led growth, education and wage inequality'* propose a simple three-class model of growth and distribution in the post Keynesian/neo-Kaleckian tradition consisting of capitalists, educated workers and uneducated workers. A new Research Project, *'Inflation in India: The role of imported and Domestic Factors'* able to account for the trajectory of inflation in India after 2016 in terms of an alternative explanation of

inflation, namely the structuralist.

A completed study *'Evidence Generation on Child Migration: A State Level Study of Tamil Nadu and Kerala'* sponsored by UNICEF seeks to generate evidence of the extent and character of child migrants and the nature and extent of their deprivations in order to make a strong case for a definitive policy to address the deprivations and disenfranchisement of child migrants. The study conducted in Tamil Nadu and Kerala, the primary survey of the kind that would allow estimation of the child migrant population, their characteristics and the barriers child migrants and / or their families face in accessing basic public provisions related to nutritional and food security, health and education. Another study *'The prospects and impact of migration at the local level through a village census'* sponsored by Kerala in the World Economy Programme of CDS examines migration and its economic and social impact in the context of Kadakkavoor village in Trivandrum district. Further, two ongoing projects include *'When Labour and Capital Go to Work: International Mobility of Labour and Capital and Global Accumulation'* sponsored by NORKA, Government of Kerala and a study on *'Sample survey on migration and the social and economic impacts of COVID in Kadakavoor village (second phase)'* which is sponsored by Research Unit on International Migration from Kerala.

The study *'Coffee sector in India: A study of few selected issues'* sponsored by NRPPD, CDS to be published as chapter in the NRPPD Compendium on Plantation Crops and other research project *'Risk and Vulnerability of Cotton Farmers in Vidarbha'* sponsored by ICSSR brought out a book *'Accidental Gamblers: Risk and Vulnerability in Vidarbha Cotton'*. Both the studies were completed under the research theme *'Agriculture and Plantation Crops'* this year. An ongoing

project '*Performance of Rubber Producer Societies in Rubber*', sponsored by NRPPD is being conducted through a primary survey across Kerala. The survey covers two primary stakeholders, the growers and the RPS functionaries. The focus of the study would be to identify what are the factors that has led to the slowdown of the RPS activities. Further, it would also suggest possibility of revival of the RPSs. Another study '*Performance of Farmer Producer Organisations in Coffee*', would try to understand type of FPOs, their legal structure and administrative structure - profit or non-profit organisations, membership criteria, stakeholders etc., ways to achieve international standards - organic farming, sustainable farming, fair trade practices etc. An ongoing study '*Feasibility of e-auction in rubber*' sponsored by NRPPD explores the viability of e-auctioning in Natural Rubber (NR) in view of the National Rubber Policy of India 2019.

Three studies under the research theme '*Politics and Development*' were completed. The study '*Bargaining with Goliath: Knowledge Society and Vulnerable Communities, Lessons from Kerala*' tries to address a few hypothetical questions such as how the marginalized sections like adivasis in the state, who are unable to acquire their special socio-economic rights from the state, will bargain with the capital at a time when state itself is conceding to the capital? When the state power is being privatized how far these communities will be able to bargain with the new power structures? In this scenario, how far Kerala's vision on the knowledge economy will be inclusive for Adivasis? etc.

Another study '*Carceral Feminism and the Punitive State in Kerala State, India*' is about the mutation of feminism in Kerala, India and its engagement with the state in the new millennium. It ends with some thoughts on retrieving feminist politics and dismantling

hierarchies in the interest of anti-patriarchal struggles.

Completed studies, *Interference of Abortion Law on the Relationship between Economic Development and Fertility Rate of Women, The History of Regimes of Childhood in Kerala: A Preliminary Account, Monetary Transmission Mechanism in Asymmetric Framework: Evidence from India, Risk and Return Spillover: Does liquidity of Stock Market Play a Role? Evidence from the US, the UK and India, Does Economic Status Matter in the relationship among Democracy, Macroeconomics and Happiness? A Panel Data Analysis, What Determines Child Immunisation? A Study of Socio-Economic Factors in East Sikkim, State Heterogeneity, Redistributive Policy and Pro-Poor Growth: Evidence from India with a special reference to Education, External Shocks and Indian Economy, Macroeconomic growth and role of Economic policy Uncertainty: the case of India* are classified under the theme Other Studies.

The RBI unit at the Centre has completed two major studies. '*Innovation performance of two high-technologies industries from India, A comparative analysis of India's Pharmaceutical industry vis-a-vis computer software services industry*' is the first one. The study focused on eight distinctive features of India's patent regime focusing essentially on the post TRIPS phase, the rationale for selecting the two industries for in-depth examination, analyses the cases of the pharmaceutical and computer software services industries etc. Another completed study '*Make in Kerala, Towards identification of products that are amenable for domestic manufacturing*', is precisely what is envisaged in the new policy of 'Make in Kerala' announced in the budget for 2023-24, where a sum of Rs 1000 crores has been allocated. According to this policy, an attempt has been made to understand the products for which Kerala depends on the rest of India. An ongoing

project during 2022-23, *Automation and Employment, Analysis of the employment implications of multipurpose industrial robots and AI in Asian manufacturing* analyses the employment implications of two Industry 4.0 technologies that are predicted to have significant labour market implications. The study will consider the employment implications of robotics and AI. A new initiative *'Green Technology Innovations in India, An analysis of its sectoral system of innovation'* proposed to survey and evaluate the generation and diffusion of innovations in green energy sources (read as solar and wind) and EVs in the country.

The RULSG unit of CDS conducted a webinar on *'Building Back Better: How and For Whom? Everyday Politics of Post-Disaster Recovery in Puthenvelikkara'*, Seminar on "State of Kerala's state finances" in association with Kerala Sasthra Sahithya Parishad, and a Panel discussion on draft policy advocacy note: *Rehabilitation of Displaced Coastal People in the Thiruvananthapuram District* etc. The Unit published an advocacy note on *'Empowering Forest-Fringe Panchayats: A Policy Reflection on the Solution to the Shrinking Human-Wildlife Interface in Kerala'* and 3 CDS Monograph series under Ecological Challenges and Local Government Responses.

A searchable database on international migration is being created under the *Research Programme on International Migration from Kerala*. This database will contain data (only summary tables) from CDS's five Kerala Migration Surveys from 1998 through 2018. Completed studies on *'Socio-Economic Impact of Migration at the local level: Report of the Kadakavoor Village census study'*, *'Make in Kerala'* and *'Return migration, Unemployment and the potential for labour collectives'*. A workshop on "Methods and Approaches to Research on Migration Issues" and an Annual Conference on "Kerala and the World Economy" were also conducted

during this year.

National Research Programme on Plantation Development (NRPPD) at the Centre undertakes policy-oriented research and on all aspects of India's plantation sector. The NRPPD has initiated the publication of a major compendium on plantation crops covering four plantation crops namely Tea, Coffee, Spices and Natural Rubber. Three Policy Briefs and a Working Paper (series No 509) have been published during this year.

Outreach

As part of its effort to disseminate research activities, the Centre conducts a number of conferences, seminars, and workshops. Open seminars and webinars are given by faculty and researchers from other institutions and from within the country as well as abroad. The Centre has organized 46 conferences/Seminars (Forty-four at the national level and 2 Training Programme/Workshop at the International Level) during the year 2022-23. This year 20 open seminars/webinars were conducted. In addition to this, 6 seminars were given by the faculty and students. CDS also organised seven lectures under the Azadi Ka Amrut Mahotsav (AKAM) Lecture Series and several national seminars, conferences and workshops and academic discussions with distinguished speakers from India and abroad including 3 Short-term training Programmes. Four annual Public lectures were also organised.

12th P K Gopalakrishnan Memorial Lecture on 'Job Displacement, Unemployment Benefits and Domestic Violence' was delivered by Professor Sonia Bhalotra, Department of Economics, University of Warwick, Coventry, UK (16th Sept, 2022).

13th B.G.Kumar Lecture 'Is India a Land of Opportunity?' was delivered by Professor Kunal Sen, Director of UNU-WIDER and Professor of Development Economics in the Global Development Institute at The University of Manchester. (21st Nov, 2022)

11th Foundation Day Lecture on 'The Digital Revolution and how the Nature of the Global Economy is likely to Change' was delivered by Professor Kaushik Basu, Professor of Economics and Carl Marks Professor of International Studies, Cornell University, USA (11th Jan, 2023)

3rd K. N. Raj Memorial Lecture on "Indian Commercial Banking at Crossroads" by Prof. Partha Ray, Director, National Institute of Bank Management, Pune (10th Feb, 2023).

The Centre's faculty and students have been invited to speak at conferences/seminars/workshops/ roundtables etc., both in India and abroad. Many of the faculty have served as members of committees, task force, and advisory bodies at the national and international level.

The short-term Norwegian Training Programme held for students from the Department of International Development at the Norwegian University of Life Sciences (NULS) was held on 30th Aug to 3rd Sept., 2022. This year the topic was "State and Civil Society in Development and Environmental Governance in India".

The ICSSR Sponsored Workshop on Information Communication Technologies and Economics was held during 7th to 18th Nov., 2022. A total of 15 participants selected from different parts of India attended the programme.

A Workshop on Methods and Approaches to Research on Migration was held from 16th to 20th Jan, 2023. The workshop was

supported by the Research Programme on International Migration from Kerala at the Centre for Development Studies and the Ministry of Statistics and Programme Implementation, Government of India. A total of 25 participants attended the Programme.

The CDS conducted its 'Teaching Innovations Programme for College Teachers in Economics (TIPE)' during 20th Feb to March 3rd, 2023. A total of 17 participants attended the programme.

The Centre's outreach activities extend beyond conferences, workshops, training etc. The CDS library has always been kept open for researchers, college lecturers, students and members of the public. CDS faculty members have been informally interacting with them to provide their academic and intellectual inputs. An opportunity to institutionalise this had emerged in 2010. The then Finance Minister of Kerala Dr. Thomas Isaac, a distinguished Alumni who was a faculty and is presently Honorary Fellow of the Centre, had made available in his budget the sum of Rs. 1 crore to constitute a K.N. Raj Endowment at the Centre. The income from this generous grant is to be used mainly for lecturers and others in Kerala to use the academic resources of the Centre for research and for putting together teaching material. Hence, a training programme, Teaching Innovations Programme for College Teachers in Economics (TIPE), for teachers working in universities and colleges in Kerala was organised during February this year. The Centre also provided research affiliations to researchers from the USA for a period of study at the Centre.

The Centre began the Azadi Ka Amrut Mahotsav (AKAM) series of public lectures in January 2022. Eminent scholars have been invited, who have done research on lesser

known personalities who have contributed to India's understanding of freedom and well-being, or those who have provided novel interpretations of the ideas of better-known figures. This year 7 lectures have been delivered.

The category of scholars known as 'Visiting Professors/ Fellows' initiated in 2017-18 is continuing this year. Appointments to this category are based on invitation only and represent eminent scholarship in a range of topics that are of importance to Centre's increasing teaching and research responsibilities.

Infrastructure Development

A major portion of the roads in the campus have been retarred. Repainting and floor tiling of computer centre, renovating H14 quarter including rewiring, floor tiling, repainting etc., part preventive maintenance in the HT substation, repainting and rectification works of all LT panels in the library and Generator set have been done during the year. Purchase of 6 nos. of new water purifiers with RO, replacing the old plumbing lines behind the guest house building, new water supply line to canteen and guest house from West hostel area were also undertaken. Routine maintenance work related to the day-to-day activities and renewal of AMC's was also carried out. A nurturing calendar which was initiated in 2019 ensures that the campus maintains a safe and clean environment throughout the year by systematically following the calendar schedule.

Finances

During the year, the Government of Kerala and the Indian Council of Social Science Research have provided Grant-in-Aid to the Centre, whose support is gratefully acknowledged. The Government of Kerala provided a total Grant-in-Aid of Rs.594.27 lakh and the Indian Council of Social Science Research Rs. 389.00 lakh. The Centre earned a total income of Rs.107.68 lakh as rent from residences and guest house, tuition fee, interest from banks, fee from teaching and training programmes and faculty and overhead costs received from sponsored research programmes. During the year, income from the CDS Endowment Fund and Research Endowments amounted to Rs.368.10 lakh and Rs.180.56 lakh, respectively. The Centre's policy has been to manage its activities and operations at the minimum cost possible without compromising on essential needs and the quality of its output. The Investment Committee aimed to achieve best possible growth of the Centre's funds by investment in high-yielding and risk-free investments. The Annual Accounts are presented in Chapter X.

The Centre gratefully acknowledges support received from the State Planning Board, Government of Kerala, Indian Council of Social Science Research, NITI Aayog, Reserve Bank of India, Ministry of Commerce and Industry, Jawaharlal Nehru University, University of Kerala and the University Grants Commission.

Several other Central and State Government agencies and institutions have supported the Centre's academic and research activities. We remain extremely grateful to them.

2

RESEARCH

This chapter provides a brief description of the studies that were done and are in progress during the year 2022-23. As in the previous year, they are grouped into broad thematic groups. However, given the inter-linkages between various themes, it is difficult to avoid some overlapping.

- Culture and Development
- Decentralisation and Governance
- Gender and Development
- Human Development, Health and Education
- Industry and Trade
- Innovation and Technology
- Labour, Employment and Social Security
- Macroeconomic Performance
- Migration
- Agriculture and Plantation Crops
- Politics and Development
- Other Studies

CULTURE AND DEVELOPMENT

Studies under this theme have largely been historical. They explore the cultural and ideological bases of development in Kerala and the shifts in culture and ideology that shape particular development outcomes. The history of the shaping of public consent for state-sponsored artificial birth-control, the discursive dimensions of community assertion in development, the sub-nationalist ideology bolstered by developmentalism forming the basis of post-independence Kerala, and the discursive

dimensions of gender and development have been actively explored at CDS. These studies have mostly relied on archival research and importantly, textual analysis, as their principal methods. Essentially, they represent interdisciplinary research at CDS which has appeared in a whole range of internationally and nationally renowned research journals across the social sciences and humanities. They examine the intertwining of development, politics, culture, and social institutions in Kerala

that significantly shape the people's well-being. Other studies include those on the cultural and historical aspects of women's mobility into politics and paid work. Recent studies include those of the impacts of extraneous cultural flows that shaped Kerala's specific historical experience of socio-political change in the twentieth century facilitated by mobility across colonial and post-colonial geographies.

During the reporting year no studies were carried out under this research theme.

DECENTRALISATION AND GOVERNANCE

Completed Studies

1. Disciplinary vs. Neoliberal Governmentality? Understanding Agency in the Pallichal Panchayat

J. Devika

Sponsor: RULSG grant research, CDS

This essay is an attempt to make sense of politics and agency of the residents of the Pallichal panchayat who have been sharply polarized, at least since 2014, around the issue of intensifying granite mining in the sprawling hill adjoining the panchayat, the Mookkunnimala (MM from now). That year, a group of concerned residents of the panchayat formed the Mookkunnimala Samrakshana Samiti (MSS), a civil social organization whose membership cut across political, caste, and community boundaries, and which involved a large number of women in public protests. The formation of the MSS was an oppositional-civil social response against the tightening spatial domination of quarry capital on public spaces in Pallichal, including public roads, and the panchayat itself. As the resource plunder on the hill accelerated, so did the grip of quarry capital on the panchayat, which, during the heydays

of the People's Planning Campaign, was considered a place of relatively successful experimentation with local bottom-up development. This essay consists of three substantial sections followed by a conclusion. The section that follows has to do with the history of spatial change and resource ownership or access in the areas on and around the MM since the nineteenth century, reconstructed mostly from the interviews and triangulated with other sources as far as possible. The subsequent sections examine the nature of the agency of the MSS activists and the residents on or around the MM who have actively supported predatory quarrying there, respectively. The conclusion pulls together the arguments, reflects on the broader question of policy, regarding changing the institutional framework of Kerala's panchayati raj to address questions of socio-economic justice, as well as the question of Partha Chatterjean 'political society' in times of neoliberal governance.

Status: Published in the RULSG series volume on Ecological Challenges and Local Self-Government Responses. *Cronyism, Development, and Citizenship: A Study of the Effects of Quarrying in the Pallichal Panchayat, Thiruvananthapuram*, with Mohanakumar S and Archana Ravi, No. 4, Ecological Challenges and Local Self-Government Responses, RULSG, CDS, Thiruvananthapuram: 2022, pp. 67-109

2. Democratic Decentralisation in Kerala: A Critique of Recent Experience

K.N.Harilal

The People's Campaign for Participatory Planning in Kerala, which is celebrating its silver jubilee this year, is now widely recognised as the most enduring as well as one of the most successful experiments of its kind in the world. The highly trumpeted participatory governance experiments

in different parts of the world, including the famous Participatory Budgeting (PB) of Brazil in Porto Allegra, have either been weakened or discontinued. Scholars identify multiple reasons for the success of the Kerala experiment, including the legacy of the larger democratic movement in the state, which the people's campaign had sought to take forward. In our opinion too the single most important reason for the success of the people's planning in the state, which we wish to highlight here, has been the commitment to pursue democracy as an end in itself, notwithstanding its obvious instrumental values. The people's plan, no doubt had several other important goals, such as development of local infrastructure, enhancing efficiency in service delivery, improving local production and distribution, ensuring environmental harmony, extending social justice, augmenting welfare, etc. But, an over-determining goal, which complemented and enhanced every other objective, has been that of deepening democracy. People's planning extended by leaps and bounds the scope for collective action by the people. It is this extensive scope for citizen's participation and collective action, which worked as an inbuilt mechanism of self-learning and rectification from within, that made the Kerala experiment successful as well as enduring. People's planning generates informed deliberations involving people at all levels, such as households, neighbourhoods, gramasabhas, development seminars, working groups, elected councils, District Planning Committees (DPCs), beneficiary groups, mass organisations, NGOs, media, and several other spaces. It has also been generating controversies of various types. Moreover, it has attracted large number of scholars from within as well as outside the state undertaking insightful studies on various aspects. There have also been conferences and academic endeavours attempting comparative research in the area. Mention must be made also of the seminal

contribution of various commissions and study groups appointed by the government. This incessant process of learning from the experience of doing, especially self-critiquing, helped in correcting mistakes and strengthening the virtues. For instance, preparation of the Thirteenth Five Year Plan was used as an opportunity to assimilate the lessons of the first two decades and to overhaul the methodology of participatory planning from below.

The positive impact of people's planning, especially in deepening democracy, improving provision of public services, and development of local infrastructure can hardly be exaggerated. But, as critiques in various forums had shown the Kerala experiment needed a course correction to ensure that it did not deviate from the original goals. As studies clearly suggested the people's campaign was tending to deviate from its original goals in various ways. An overwhelming reason for the weaknesses listed is identified as the bureaucratic capture that made the methodology of plan formulation and implementation too cumbersome and alienating and participation unfriendly. In the present paper we make an attempt to analyse the course correction introduced in the decentralisation experiment during the 13th five year plan period, focussing mainly on the endeavour to save the people's planning process from the threat of bureaucratic capture. This analysis is important because the state is now preparing to launch a new five year plan (Fourteenth Plan) from 1st April 2022.

Status : Published Chapters in a book titled '*Deepening Democracy: Comparative Perspectives on Decentralisation, Cooperativism and Self-Managed Development*', Joseph Tharamangalam and Jos Chathukulam (Eds.), Routledge, India.

*Ongoing Studies***3. The road to safety- Examining the nexus between road infrastructure and crime in rural India**

Ritika Jain and Shreya Biswas

The adverse impact of crime is of utmost importance in developing economies that are already plagued with low growth, low investment trap, and uncertain economic environment. Further, due to informal markets, weak institutions and poor quality of infrastructure, the probability of being caught and convicted of a crime are lower in developing countries than the developed ones. Further, countries that are characterised by higher inequality have a higher incidence of crime due to various reasons (Ehrlich, 1973; Fajnzylber et al., 2002). Firstly, in societies with a high degree of inequality, the legal wage for low-skilled workers may be too low compared to expected earnings from indulging in illegal activities. Second, the cost of crime is the combination of the probability of being caught and prison time. Again when inequality is high, one may argue that the quality of life within and outside the prison may not differ substantially, making crime a high expected return and low-risk activity compared to low inequality scenarios. Since developing countries have higher inequality (Van der Hoeven, 2019), the vulnerability of individuals and exposure to crime is likely to be high in this setup. Frequent criminal activities may affect productivity in developing economies hindering life. Thus, research on factors and interventions that may control and deter crime may be highly relevant for the developing world. Becker (1968) pioneered the economics of crime and suggested that criminals were rational agents deciding whether to indulge in criminal practices based on their benefits and costs.

Following Becker (1968), a large body of literature has emerged that has explored the determinants of crime (Fajnzylber et al., 1998; Cahill and Mulligan, 2003; Imrohroglu et al., 2006; Buonanno and Montolio, 2008). These papers identify several attributes such as unemployment rate, urbanization extent, the fraction of foreigners, previous incidence of crime and quality of institutions. On the other hand, sociological literature focuses on how the social theory of relative deprivation may be one of the significant determinants of crime (Merton, 1938; Blau and Blau, 1982; Bernburg et al., 2009, O'Mahony, 2018). The theory posits that more impoverished and more unequal societies have higher crime counts due to people feeling deprived relative to their peers. Besides these socio-economic factors, spending on road infrastructure may also influence crime rates (Hughes, 1996). Our paper also attempts to examine how building road infrastructure may impact criminal activities.

We explore various channels through which roads may influence crime. First, local development through roads may lead to better employment opportunities. A revisit to Becker's (1968) model then implies that the opportunity cost of crime rises with better employment opportunities. As a result, individuals may substitute their time spent on crime with formal employment. Hence, Becker's (1968) framework implies that building road infrastructure should impede and deter crime. However, if the economic benefits of employment due to roads disproportionately favour the skilled and endowed individuals more, the unskilled ones may still indulge in criminal activities. In some instances where the benefiting group forms a minuscule share of the population, it may lead to a rise in criminal activity.

Another channel that determines how road infrastructure may influence crime stems from the infrastructure development implementation itself. Roads reduce the time costs and increase mobility, both critical for criminal activities and economic activities. A well-connected road network may catalyze movements of criminals to potential hot spots with ease. These contrasting channels provide an interesting backdrop to test the empirical validation of how building road infrastructure may affect crime in developing economies.

Against this background, we attempt to examine how building road infrastructure impacts crime in rural India. The focus on rural India stems from the weak infrastructure and scarce non-farm opportunities (Jha, 2006)¹. With heavy reliance on agriculture for employment, infrastructure development in rural parts of India has been slow. Despite receiving attention in several development plans and policies since independence, the slow pace had been persistent and development of roads remain a major policy focus till date.

We use data from the India Human Development Survey (IHDS) conducted in two waves- 2004-05 and 2011-12. Among several socio-economic attributes, the survey explored whether the household faced any type of criminal activity in the last twelve months. We use multiple measures of crime as our dependent variables. Both waves of IHDS also have a separate questionnaire for village-level amenities, population composition and occupation structure, among other attributes. Using

¹ From the perspective of crime, crime is generally viewed as a by product of poverty, inequality and urbanization. According to the Indian Human Development Survey, crime rates (defined as the share of households that were subjected to some type of crime) in urban India was 7% between 2004-05 to 2011-12. During the same period, rural India witnessed a crime rate from 6.1%. Thus, crime in India is not substantially different between the sectors.

information from the village questionnaire on whether the village was accessible through an all-weather pucca road or kaccha road or was inaccessible, we construct our focal variable- the presence of a pucca road in the village.

We employ an instrumental variable estimation strategy to account for omitted unobservable factors that may simultaneously influence road and crime measures. We find that households living in villages connected with an all-weather pucca road experience 5% less criminal activities than households living in villages without it. Our effect size doubles when we control population composition, inequality and income uncertainty at the village level. A closer examination of the specific type of criminal activity reveals that the effect is limited to types of crime that have a higher possibility of happening outside home premises- female harassment and burglary.

We explore several channels that may drive our main findings. We posit that roads as a deterrent to crime may work through two channels- direct effect of better street lighting, higher likelihood of bus service and increased employment opportunities. Additionally, it will also bear the indirect benefit of higher income for the households and lower inequality at the village level. We test these channels by examining the impact of a pucca road on street lighting, and bus stops in the village, employment and income status of households. We find strong evidence that households in villages with better-connected roads have greater access to public programs related to street lighting and bus services. Additionally, we also find evidence for increased employment, higher income and equal land distribution for villages with better roads. These results outline the primary channel through which roads reduce crime.

We extend our model in two broad ways. These extensions are based on institutional factors and pre-existing socio-economic conditions in the state where the village is located. In the first extension, we attempt to examine if our impact is uniform for states with better quality of institutions vis-à-vis states that do not. We use measures that capture the efficacy of crime deterrence and management at the state level and divide our states according to high and low categories. We find that road infrastructure reduces crime only in states that have a lower quality of institutions. This outlines the critical importance of roads in helping these states catch up with better institutions. As a second extension, we test if our effects are conditioned by the level of inequality and the coverage of public employment programs at the state level. Again, we find that our impact is limited to relatively more unequal states and that have better coverage of public employment program. These results underline the importance of building road infrastructure in rural India.

Status : Draft completed for publication

GENDER AND DEVELOPMENT

Ongoing Studies

4. 'Keep Calm and Carry on?' The Gendered Implication of 'Resilience' for Kerala's Development

J. Devika and Anamika Ajay.

This paper is a preliminary attempt at tracing the implications of 'resilience' as it appears in Kerala's development discourse and making sense of contemporary gender politics here in development and outside. The introduction is followed by three substantial sections and the conclusion. In the next section, we reflect on the antecedents of 'resilience' in Malayali development discourse from the 1990s, from the conceptualisation of the People's

Planning Planning by the dominant left, till the explicit appearance of 'resilience' in contemporary development discourse. The two sections that follow use the lens of resilience to make sense of gender politics in the women-centred development civil society in Kerala, composed of the state-wide network of women's self-help groups popularly known as the Kudumbashree, and outside, in the civil society in general. If in the former, women have been shock absorbers for the most and continue to be valued for such resilience, in the latter, women have lately emerged as the powerful stressors - in almost all social institutions recognized as the fruit of twentieth century social institutions, from the modern 'arranged' endogamous conjugal marriage, the nuclear family committed to 'child-crafting' for the nation and then the global labour market, to neo-savarna-caste/communities and religious organizations, and women's workplaces that expanded or emerged in the twentieth century. We rely upon observations from our fieldwork in different parts of Kerala, urban and rural in the first section. The second section relies largely on very recent public sphere materials from around 2015 to the present. In the conclusion, we reflect on the implications of recent shifts in development and the nature of the state for the Kerala Model of politics of the twentieth century, and of the women-centred development society for gender politics in Kerala.

Status: - Presented at the Kerala in the World Economy Conference, Feb. 2022.

Revised for inclusion in a forthcoming volume edited by JDevika and VJVarghese from Orient Blackswan, Hyderabad.

Ongoing Research Projects

5. Child care and educated women's labour market behaviour: Evidence from Kerala

Praveena Kodoth, Tirtha Chatterjee (Principal Investigator) and Thiagu Ranganathan

Sponsor: J PAL

The effects of child care responsibility on higher educated women's labour market behavior assumes importance in Kerala because of a relatively large base of higher educated women, high unemployment and a pattern of behavior that leads women to exit the job market to attend to child care responsibilities and to seek to return after a gap. Lack of affordable child care facilities of desired quality lowers women's opportunity cost and imposes a motherhood penalty on them. This study seeks to explore the potential for increase in women's employment through an intervention that provides acceptable child care at affordable cost.

We seek to develop a proposal to explore the effects of child care responsibility on higher educated women's labour market behavior in Kerala which could lead to a child care intervention. With the relatively large base of women with higher education not translating into correspondingly high levels of employment and with a continued emphasis on domesticity co-existing with high unemployment rates, Kerala presents a site for a unique case study of women's labour market behavior.

Explanations for the high unemployment of women in Kerala include the lack of employable skills (Nagaraj, 1999), supply side factors like strong job preferences and restrictions on mobility (Devi, 2002), overcrowding in a narrow range of feminised jobs (Kodoth and Eapen, 2005) and child care responsibilities (Sebastian

2019). A decline in unemployment witnessed among higher educated women post 2004-05, mostly due to a contraction of the labour force, was interpreted as a discouraged worker effect (Mathew, 2015). However, young higher educated women observed to have high job aspirations and relatively low reservation wages (compared to older generation women), deferred employment or dropped out of the job market on account of child care but sought to enter or return after a gap (Sebastian, 2019). Women from relatively poor backgrounds were especially disadvantaged as their mothers, being employed, could not provide replacement care (Ibid).

Public child care is perceived as poor quality while the price of desirable private child care facilities was unaffordable to a section of women. Therefore, the replacement cost of self provided care led to interruptions in women's employment trajectory and imposed a motherhood penalty on them. Affordable good quality child care may have wider benefits as it could provide children with valued social and learning skills. The feminist economic argument that children are public goods justifies state subsidy for good quality child care (Folbre, 1994). State investment that enhances children's capabilities would benefit the economy and the state (through taxes).

Status: Expected date of completion soon

6. Flexible work arrangements and gendered outcomes: Impact of COVID-19 in India

Thiagu Ranganathan and Avina Mendonca

Sponsor: ICSSR

Status: Expected date of completion: August 2024

New Initiatives/ Research Plan

7. 'Precarious Work, Women and the Pandemic: Understanding the Sociology of Covid-induced Livelihood Vulnerabilities'

J. Devika and Anamika Ajay

Sponsor: ICSSR

During the pandemic in Kerala, low-skilled women working as domestic workers, fish vendors, retail workers and women micro-entrepreneurs all of whom perform face-to-face interactive service work are uniquely vulnerable both to the economic impacts of the precarity and to contracting and transmitting the virus through their labour. These workers all experienced unemployment and insecurity, but also had different levels of support available to them, and the negotiation of this support demonstrates how inequalities emerge in conditions of precarity. By situating COVID-19 within the existing concerns with precarity and inequality in the sociology of women's work, the pandemic may be approached here not merely as a health crisis that impacts on precarious workers, but rather as a crisis of precarious work itself experienced and negotiated in terms of the relationship between inequality and uncertainty that has emerged in the context of labour market precarity among women.

Research Objectives

1. To study the impact of the Covid-19 pandemic and the lockdown measures on employment and livelihoods of low-income women workers employed in the informal service sector?

2. To understand how the pandemic impacts the relations between the low-income women workers and their employers. More specifically, to understand how the

worker's pre-existing material conditions, their social and spatial realities influenced the negotiations between the employers and the workers during the pandemic.

3. To capture the different dimensions of vulnerabilities experienced by low-income

women workers and their families in organising their everyday lives and livelihoods during the pandemic?

4. To understand the extent and ways in which the pandemic intensified the demands from the family on women's provisioning labour?

5. To map the extent and ways in which various social economy organisations at the

local level helped the low-income women workers and their families to mitigate Covid-19 induced livelihood vulnerabilities.

6. To evaluate the role of the local and state government interventions in mitigating the vulnerabilities induced by the pandemic on these low-income women workers

7. To understand whether and how the pandemic has altered the biographical plans of the women workers and their orientations towards their futures in general.

Status: Writing stage.

8. Does gender based human capital financial development induce total factor productivity growth in an emerging economy?

Hrishikesh Mallick, Shreya Pal ² &

Mantu Kumar Mahalik ³

Existing studies have looked at the determinants of total factor productivity growth differences in emerging economies. But the studies have ignored the gender based human capital financial development (interaction of human capital and financial development) on total factor productivity growth differences in an emerging economy like India. Therefore, this research gap motivates us to examine the impact of financial development on total factor productivity growth in India by accounting gender based human capital patterns (low and high education). Government spending on education and foreign direct investment inflows are included as control variables in the total factor productivity growth function. Using the annual data from 1980-2019, it estimates the productivity growth equation through ARDL bounds test model. After confirming the long-run relationship between the series, ARDL's long-run results indicate that financial development hampers productivity growth without accounting gender based human capital. Financial development positively contributes to productivity growth when both high and low male educations are added into the estimation. Surprisingly, financial development impedes total productivity growth when females' high education is incorporated in the estimation but the result is not the same when we add female's

low education. These findings suggest that low and high education of males are much more important than female education, while looking at the gender based human capital financial development on total factor productivity growth in India. Thus, policymakers and the government in India should not undermine the importance of low and high education of males because of their support to the financial development in contributing to rising productivity growth. Moreover, policymakers should look into the adverse impact of financial development on productivity in presence of female high education.

HUMAN DEVELOPMENT, HEALTH AND EDUCATION

Ongoing Studies

9. Intergenerational Mobility and Collective Articulation of Rights: A Case study of Mala Araya Tribal Community in Kerala

Abhilash T

Bhagvan Birsa Munda's life, agitation and ideals influenced many tribal communities in the country. Few of them have achieved a certain amount of socio-economic mobility as well. The Mala Araya community in Kerala is one among them. It is essential to study the mobility of such unsung communities when remembering Bhagvan Birsa Munda. Tribal communities in the country are highly heterogeneous in their cultural, social and economic outlook. This divergence will have a major bearing in their development and inclusion. Many studies consider tribals as a homogenous category that obscure the nuances of their socio-economic milieu. Studies on tribal group often neglect the occupational categories of these communities. It can be broadly classified into three; settled-

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agriculturists, hunter-gatherers and wage labourers. In Kerala's tribal landscape, the settled-agriculturists tribal groups have been somehow able to garner the benefit of affirmative action, state-sponsored developmental initiatives and the benefits of the market economy. There are many reasons behind their mobility. Firstly, unlike others they were less subjected to land dispossession and alienation. They somehow benefitted first wave educational development in the state. However, the other two groups have been still at the receiving end of the state-sponsored developmental initiatives. Therefore, this study will explore the intergenerational mobility of settled-agriculturist tribal groups Mala Araya. This study will explore the factors that led Mala Araya's intergenerational upward mobility, if any, and how far the community is able to sustain the mobility at present. It will also explore the struggles of individuals like Birsa Munda from the community in their mobilization during the post-independence period. By analyzing their developmental experiences this study aims to gather inferences, if any, for the policy formulations for the other socially-backward groups in the state.

Status: Expected date of completion : 2024 March

10. Information and communication technology and female employment in India

Ritika Jain and Tirtha Chatterjee

Female labour force participation is driven by different factors in developed and developing countries (Blundell and MaCurdy, 1999). Individual choices have been found to drive the same in developed countries while household characteristics, social and gender norms and nature of labour demand matter more for developing countries. India has been

persistently recording low female labour market participation rates. As of 2012, India ranks as low as 84th out of 87 countries in female labour force participation (Kapsos et al., 2014). Further, female labour force participation rate recorded a precarious drop from 49 percent in 2004-05 to 37.8 percent in 2009-10 and further to 35.8 percent in 2011-12 in India (NSSO, 2011; Andres et al., 2017).

Several studies provide evidence of female participation in the labour market in India being primarily distress driven and influenced by several external factors such as culture, norms, household socio-economic characteristics, and stigma attached to working outside the home (Klasen and Pieters, 2012; Abraham, 2013; Chakraborty et al., 2018; Sarkar et al., 2019). Since the main drivers of low female participation in the workforce in India are external factors such as cultural norms, household responsibility, socio-economic factors, crime rates and stigma attached to working outside homes, it is conceivable that ICT adoption may act as an effective instrument in boosting female labour force participation by lowering these barriers that are beyond her control. We propose that ICT adoption could directly increase labour market participation and quality of work through timely availability of important information, lower job search efforts and costs. Additionally, they could also have indirect benefits such as more time working remotely (from home) and higher female empowerment due to increased awareness and connectivity.

Against this background, we explore whether ICT adoption drives female labour market behaviour. We use data from two rounds (2004-05 and 2011-12) of an individual level primary survey, the India human development survey (IHDS), a nationally representative survey with questions on health, education, socio-

economic status, and other related issues. We construct three employment-related outcome measures: first, employment status indicating whether the individual is employed or not, second, nature/type of employment- casual, permanent or self-employment and our third measure is related to entry and exit from labour market.

We recognize that the relationship between ICT adoption and female employment is causal only when ICT adoption is exogenous. It is plausible that individuals who are motivated and inquisitive explore job opportunities and are also the ones who adopt ICT. Further, employed individuals may systematically use more ICT compared to unemployed ones. Thus, the effect of ICT adoption might be endogenous to female employment behaviour due to omitted variable bias and reverse causality. We use an instrumental variable estimation framework and a Heckman (1977) model to tackle endogeneity and sample selection bias.

We use two measures of ICT adoption- use and ownership. Ownership is measured using an indicator for households owning ICT equipment (computer and mobile phone), and ICT use is calculated using a binary indicator which equals one if the households use these equipment (computer, mobile phone and internet) and zero otherwise. We control for several individual and household level characteristics as exogenous determinants of status and quality of employment in our empirical specifications. Our results give evidence of the positive impact of ICT adoption on likelihood of female employment in India. We also find that the positive impact of ICT adoption is limited to individuals who are salaried or are into self-employment.

To refine these findings, we contrast these results for males and females separately.

Our results provide evidence in support of ICTs role only for women in finding jobs and helping them catch up with their male counterparts, thereby reducing the gender gap in the workforce. Following Sarkar et al. (2019), we explore the role of ICT on workforce entry and exit decisions. Our results give evidence of ICTs raising the likelihood of finding a job among previously unemployed women and reducing the likelihood of exiting the workforce for previously employed women.

It is likely that the impact of ICT adoption on labour market behaviour is not uniform across place of residence, education levels, marital status. We extend our main findings to explore such heterogeneity and find that the positive impact of ICT adoption is non-existent for the rural sector and present only for the urban sector. Our results show that marriage moderates the impact of ICT and across educational categories, we find that the impact is significant only in case of higher educated females. We further explore two channels which could drive the influence of ICT adoption on female labour market participation and find that higher access to information and higher extent of empowerment could drive the positive impact of ICT adoption on female labour market behaviour.

Status: Draft completed for publication

Research Plan

11. Remittances and Human Capital Formation in South Asian Economies

Hrishikesh Mallick

We shall examine the trends of remittances inflows and investigate the question do remittances help in improving the Human Capital Formation in South Asian Economies from 1990 onwards.

INDUSTRY AND TRADE

Completed Studies

12. Impact of policy on Mobile Manufacturing in India

Chidambaran G. Iyer

Mobile production in India started in 2005; however, as expected in literature it is primarily low value assembly that happens in the country. The recently announced policy measure of Production Linked Incentive scheme for mobile manufacturing emphasizes the Indian government's intention to become a major global player in this segment. In this paper, we summarize the mobile manufacturing paths taken by four countries – South Korea, Taiwan, China, and Vietnam – and infer few policy lessons that may be useful for India's journey. Our analysis shows that local procurement is not a given, investment in indigenous standards & technologies by the government, and focus of local mobile firms on downstream activities may help India in its aim of becoming a major mobile manufacturing destination.

Status: Publication under peer review

13. Phase manufacturing policy for mobile manufacturing in India: A empirical and theoretical evaluation

Chidambaran G. Iyer

In this paper we attempt to understand the impact of PMP on manufacture of mobiles in India. Through the macro and micro evidence, we find that mobile manufacturers, though having set up facilities in the country primarily assemble phones. Most of the components are imported with very little local manufacturing. Empirical evidence and theoretical literature available suggest this as the likely outcome. There are

two additional reasons for this expected outcome, first is the strategies followed by lead firm wherein they locate the highest value activities in their home countries and set up assembly plants in growing markets just to placate the local government. Other than offering incentives that influence lead firm strategies, the host country has very little control over firm specific strategies. The second reason is the trade policy followed by India, which has reduced tariffs such that firms prefer importing components from their huge manufacturing facilities in South East Asia. For industrial deepening and upgrading India has to first and foremost lay down an industrial vision and then follow it up with significant institution building. Simultaneously, policy at the micro level should encourage major lead firms to co-locate their supply ecosystems in the country; and thereafter encourage local procurement by each of the firms in the supply ecosystems.

Status: To be published as a chapter in an edited book – Peer review completed – Work on revised version in progress.

14. India's Regional Trade Agreements with ASEAN and UAE: The Question of Politics and Economics of Integration

K.N. Harilal and Rajesh Many

Sponsor: Seminar organised by CDS, 28-29 November 2022

The present paper is on two of the most consequential Preferential Trading Agreements India has signed in the recent past. We consider the agreements with ASEAN and UAE important because of the weight they enjoy in India's trade basket and vice versa. Further, both ASEAN and UAE are known to enjoy a long history of time tested trade relations with India. The experience of trading under the framework of a preferential arrangement gained

under the India-ASEAN agreement will be of immense use in visualizing the effects of the UAE agreement. The comparative study we hope will help draw varied insights that are valuable in the context of the free trade area negotiations India is currently engaged in with nearly a dozen other trading partners.

Although the WTO agreements specify certain well defined norms regarding the setting up of regional trading arrangements in reality the PTAs differ among themselves a lot. Therefore, it is important to see the details of the PTA agreements in question on the one hand and the actual process of implementation on the other. The impact of the PTA will depend on the preference margin it offers to the participating countries vis-à-vis non-members. Notably the preference margin that each member offers to the other members of PTA could vary considerably. Further, the preference margin need not be uniform across the commodity groups traded. Similarly, the rules of origin agreement and the dispute settlement mechanism also vary significantly among the PTAs.

Although the regional agreements considered here are multidimensional in nature, covering not only trade in goods but services, investment, intellectual property, etc., the present study would focus mainly on the question of trade in goods. However, no study on regional integration can now afford to be indifferent to the nature of deep integration they are aiming. Although the immediate focus is on trade in goods our analysis of it will be set in the background of deep integration into which the trading partners are drawn into. In fact, India is moving into a process of deep integration with both the ASEAN and the UAE. In traditional shallow integration the focus is on removing border measures affecting trade in goods and services. Modern trade agreements go far beyond trade liberalization and ventures

into international policy coordination with respect to a wide range of policy issues such as strengthening of the intellectual property rights, competition policy, protection of foreign investors, government procurement, etc.

In shallow as well as deep integration the participating nation-states agree to part with certain slices of sovereignty for furthering the cause of integration. But, the question of politics as to who, and for what end, wields the power forfeited by the nation-state arise. Withdrawal of the state doesn't mean anarchy; on the contrary the GVCs/GPNs are known for aggregation of power, making as well as implementation of the rules of the game, incentivizing, disciplining, and dispute settlement. The emerging literature on deep integration takes cognizance of the resultant questions of political economy such as privatization of governance and the policy space left-over for the nation-state. In the present study we revisit the question of political economy in the context of trade in goods, very much a part of shallow integration, but with obvious ramifications for issues of deep integration such as the role of the state in dealing with problems of income distribution, labour and environment standards, competition policy, etc. As we shall try to illustrate in the context of plantation crops of South India and agriculture in general the welfare loss on account of free trade need not be limited to the sectors and segments of people denied protection and exposed to international competition. As globalization and deep integration progress hand in hand the nation-states find it difficult to address many such ordinary questions of governance. If the nation-states are helpless, the citizens will be more so because they would have none to represent their grievances. Obviously it involves issues related to citizenship, sovereignty, and democracy as well as the

social contract on which the nation-state are built.

15. Too risky to start a business? – Examining the relationship between crime and firm entry in India

Ritika Jain and Shreya Biswas

The extant literature has focused on the effect of crime on firms. For example, an increase in crime is related to a lower likelihood of growth of microenterprises (Benyishay and Pearlman, 2014), lower output prices (Rozo, 2018) and lower sales growth (Gaviria, 2002). In contrast, Slutzky and Zeume (2020) find that reducing organized crime is related to higher firm entry and competition. These studies have mainly focused on the firm outcomes, whereas the link between crime and firm's decision to enter the market remains under-researched.

In this study, we examine whether crime acts as a deterrent to entrepreneurial activity given by new firm registrations in the context of an emerging market economy like India. India classifies as an interesting case study for at least two reasons. First, even though the registration of new firms has increased during the last decade, the number of new firms registered per 100 thousand workers remained low at 0.1 in addition to the regional disparity in registrations (Economic Survey, 2019-20). Second, the incidence of crime in India is not very high compared to few African or South American economies; however, the crime rate defined as the crime per thousand population has increased from 1.876 in 2010 to 3.143 in 2020 (NCRB, 2020), indicating that crime rate has not fallen substantially in the economy during the last decade. The low per capita new firm registrations, spatial heterogeneity in firm registrations, and crime persistence make it worthwhile to examine the relationship in India.

There are multiple channels through which crime can negatively affect firm entry. First, crime increases the direct costs for firms in the form of increased spending on security. A higher operational cost in localities with a higher crime rate lowers expected profit, which may deter entrepreneurs from entering the market. Second, higher crime may be associated with a higher perceived risk of expropriation of the firm (including damage to machines and equipment, product theft, etc.) once they start the business. The higher perceived risk, in turn, may act as an entry deterrent for prospective firms. Third, a higher crime rate may be related to higher general uncertainty in the environment and lower demand for output. Finally, the threat of victimization may lower employees' productivity, which in turn may reduce firm profitability. Because of direct and indirect costs associated with higher crime, we expect an increase in the crime rate should be negatively related to firm entry.

Using administrative firm registration data for 2010 to 2020 and district (lowest administrative unit in India) level crime records, we find that a higher crime rate is related to lower firm creation in India. Specifically, a one percent point increase in the crime rate leads to a 0.25 unit fall in the new firm registration rate during the year. Further, the negative effect of crime is driven by districts characterized by a weaker institutional environment. The effect is concentrated only in districts with a higher crime rate than the national average.

The findings of the paper make at least three contributions. First, our study emphasizes the importance of a stable external environment for entrepreneurial activity. The paper provides evidence that a safe neighborhood characterized by lower crime is conducive to new firm creation. Second, our study extends the

understanding of the economic effects of crime, specifically in the context of an emerging market economy. Third, the study provides evidence that the quality of institutions moderates the effect of crime in emerging market economies.

Status : Communicated to a journal

Completed Research Project

16. Women Owned Enterprises and its Scalability: With Particular Reference to Kerala

Beena P L

Sponsor: ICSSR

Promotion of self-employment as a strategy for reducing unemployment or for increasing labour force activity among disadvantaged groups has been pursued by the policy makers at the global level. Government of India has launched various programmes to ensure women's participation in employment, especially women entrepreneurship. In 2013, women-owned enterprises accounted for 13.8 per cent of total number of 5.6 million enterprises in India, with Kerala ranking number two accounting for a relatively large share of women owned enterprises (1.6%) as compared to other states in India. Several studies (Pillai and Shanta, 2005; Subrahmanian, 2003) have identified the IT sector as the focal point for growth in Kerala, and linked it to the growth of the service sector. IT enabling services have come up in a big way in Kerala and there is an attempt to attract more women entrepreneurs in to this sector (Kerala Budget 2020; 2021;2022). Furthermore, quite in contrast to earlier years Kerala also has witnessed a turnaround in the recent growth rate led by the service sector (Kannan, 2005, Pillai and Shanta, 2005; Thomas 2021 and GOK, 2021;Beena, Ranganathan and Titty,2023).

According to the GEM 2022 report, two out of every five early stage entrepreneurs in the world are women. Women entrepreneurs contribute significantly to India's economic growth (Kundu and Rani, 2016). Number of women owned enterprises (organised and unorganised) in the Indian manufacturing sector grew much faster than the other sectors in recent years although the average age of those firms are much smaller than the male owned enterprises (Census,2013; Nagadevara,2016;Chaudhari, Sasidharan and Raj, 2018; Jeemol et. al 2021). Women owned enterprises in Kerala were relatively more in the manufacturing enterprises after 'Livestock' (NSSO). Kerala state has also witnessed a large number of individual women start-ups, nano-micro enterprises under IT and other industries, micro enterprises under the special livelihood development package of Kudumbashree and SHGs of other organisations (Economic Review, GOK, 2021) while female work participation rate is on decline.

It is generally believed that unconscious gender bias, lower confidence in their own business skills, lack of access to finance, lack of networks and relationships within the industry, lack of family support, child caring responsibilities, and lack of safety at the workspace as well as during commutes between the office and home affects female entrepreneurship negatively. The proposed study tries to test this hypothesis as well. Moreover, it is proved that states with relatively higher literacy rates also have more women entrepreneurs and the current project aimed to find whether this is true in the context of Kerala. It is widely argued that whether self-employment could be a desirable move "upward" for workers or whether it is a second choice for those dissatisfied in the wage and salary sector (Williams, 2010). The present study proposes to test this hypothesis.

Although there are a number of studies looking at the performance of women-owned enterprises and the factors determining such performance at all India level, no systematic study has been carried out to analyze the recent changes in the structure of women-owned enterprises, role of the state in shaping such changes and the challenges faced by those enterprises in Kerala. Given this context, the present study makes an attempt to understand the Women-owned Enterprises and their Scalability - With Particular Reference to Kerala". The specific objectives are the following: To analyze the sectoral and industrial distribution of women-owned enterprises in Kerala in terms of operational characteristics such as its expansion, networking, ICT use, and marketing; b) To assess the performance of the women-owned enterprises in terms of size distributions in terms of value added, Net Fixed Assets, Turnover, employment and number of enterprise; c) To analyze the growth pattern of women enterprises based on two NSSO round, productivity trends, its employment elasticity and identify the factors determining the probability of expanding enterprises; In order to understand the scope of scalability among women-enterprises, questions were formulated pertaining to introducing new product or diversification, vision of the firm in the next five years, market expansion and finally the growth status of the firm. The scalability of the enterprise can be measured using these variables. The central part of the investigation of this study is a survey of micro-enterprises scattered across the state to understand the nature and characteristics of the enterprises, activity pattern and performance parameters. The aspects of linkages, market dynamics, capability-building, etc., could be obtained from the enterprises and from information gathered from individuals who have played a key role in those units. This was supplemented

by discussions with the agency concerned. In addition to this, a survey of women entrepreneurs and employees of those units could be carried out to obtain insights on the life and living conditions of the women, economic and social empowerment issues, etc., supplemented by group discussions and participatory observation.

The study had made use of the secondary data such as census, Unincorporated Non-agriculture Enterprises, published by NSSO, and a list on MSMEs data base collected by Small scale industrial centres across districts in Kerala. The performance of women owned enterprises and its scalability has been studied based on secondary data source provided by NSSO unincorporated non-agricultural survey 67th and 73rd rounds. An effort has also been made to build a primary database on women enterprises based on field survey carried out on four selected districts such as Thiruvananthapuram, Ernakulam, Thrissur and Kozhikode. The information related to various aspects such as forward-backward linkages, market dynamics, capability-building, etc., was obtained from individuals who have played a key role in the units. In addition to this, women entrepreneurs were interviewed in order to obtain insights on the life and living conditions of the women, and socio-economic empowerment.

The report has six chapters. Chapter 1 highlights the significance of the study based on the existing theoretical and empirical literature survey and also outlines the objectives and methodology. Chapter 2 comprises of the operational characteristics of women-owned enterprises in Kerala in a comparative perspective. Chapter 3 provides the size distribution, productivity, employment elasticity and the probability of expanding women-owned enterprises. Chapter 4 provides the analysis of the motives and

performance of women-owned enterprises based on the data collected from the field. Chapter 5 comprises of the motivational aspects of women-entrepreneurs based on ten case studies. Chapter 6 sums up the major findings, draw some insights for the policy formulations and highlights the scope for further research.

Status : Plan to publish as CDS working paper and with a reputed journal

17. Liberalisation, Resource Allocation and Aggregate Productivity Growth: A Study of Indian Manufacturing Industry

M. Parameswaran

Sponsor: ICSSR

This study examines the impact of liberalised policy regime introduced since 1991 on the productivity growth of Indian manufacturing industry. The study focuses on the role of resource allocation from less productive to more productive firms as well as from non-exporting to exporting firms in industry level productivity growth. The recent theoretical literature analysing the impact of trade liberalisation on productivity uses heterogeneous firms framework. In this, firms operate at varying levels of productivity and trade liberalisation in these models increases aggregate productivity through resource allocation from less productive firms to more productive firms. Increased competition also forces firms to catch up with the best productivity firms; this within firm productivity growth also improves industry level productivity. However, a close examination of the theoretical literature modelling the impact of increased competition through trade liberalisation on firms' incentive to invest in productivity enhancing activities shows that it depends on many firm-specific and industry specific features. Thus, the theoretical literature is inconclusive on whether increased

competition incentivise firms to invest more in productivity enhancing activities. However, the literature elicits a number of firm-specific and industry-specific factors shaping the final outcome, thus providing some guidance to the empirical analysis.

The present study used firm level panel data for the period 1992-93 to 2005-06 and firm level productivity is estimated using a gross output production function. Unbiased estimation of the contribution of resource allocation to aggregate productivity requires addressing omitted price bias while estimating productivity. We use the very recent methodology of Gandhi, Navarro and Rivers (2020) to estimate a gross output production function, which addresses both omitted price bias and simultaneity bias.

The results of the study suggests that in number of industries resource allocation to more productive firms accounts for a significant share of productivity growth. The contribution of resource allocation to exporters also found to be significant in driving aggregate productivity growth. The study also finds evidence for productivity catch among firms. The estimated catch-up rate is 0.51, suggesting that on average firms cover 50 percent of the productivity gap with best productivity firm in a year. The results also show that the impact of import competition on productivity growth depends on extent of concentration in the domestic market - import competition has positive effect on productivity growth in concentrated markets. Similarly, import competition also increases productivity growth of initially low productive firms if they are operating in a concentrated market. Overall, the results suggest that the impact of import competition on productivity depends upon industry and firm specific factors and this in general supports the predictions of many theoretical models in this area.

Status: Report submitted to ICSSR and now it is being revised for journal submission.

18. Make in Kerala: Towards identifying a set of industrial products that are suitable for local manufacturing

M. Parameswaran, Sunil Mani and K N Harilal

Sponsor: Kerala Government (Kerala Migration Research Unit)

This paper aims to identify a set of products which Kerala is currently importing from the rest of India and the world and which, given its importance for domestic consumption, can be manufactured within the state. The study accomplishes this by analysing Kerala's trade with the rest of India and the world using the newly available E-Way bills data. The study period is from 2018-19 to 2021-22. Employing two-pronged criteria of competitiveness and its importance for domestic consumption, the study has identified a set of products that may be manufactured domestically. As part of this exercise, the study also estimates Kerala's balance of trade and also the technology composition of its trade.

Status: Report is submitted to the Government of Kerala

19. Make in Kerala

Sunil Mani, M.Parameswaran and K N Harilal

Sponsor: Research Programme on International Migration from Kerala, CDS

Kerala ranks as one of the richest and more developed states in the Indian union. But the level of industrial investments in the state is much lower, especially in comparison with her immediate southern neighbours. Given her high rank in monthly per capita consumption expenditures,

the state has been relying on imports of various products, from consumer goods to basic, intermediate and capital goods, from the rest of India and the rest of the world. The state has been experiencing severe unemployment, especially youth unemployment, due to a lack of local ventures where the local population could be employed. As a result, the state has been experiencing large-scale migration of its citizens to other states in India and foreign countries in search of employment. The large migration has led to remittances flowing into the migrant households, which has served primarily to smoothen their consumption. These increased consumption levels have helped create a large market for industrial products in the state.

Since some of these products are not manufactured locally, the items have been imported from the rest of India or abroad. However, the number of goods imported to and exported from the state to the rest of India and abroad has not been quantified comprehensively. There are some sporadic attempts to estimate Kerala's trade with the rest of India and abroad. A country's Balance of Payments accounts is the primary data source for measuring its economic integration with the rest of the world. It tracks every legal transaction a government engages in, including commodities, services, and capital. The BoP accounts are prepared by the country's central bank and are available quarterly. However, federal countries with many sub-national entities, such as states, have an extra challenge. The states are integrated with the rest of the states in the country and worldwide. In the absence of state-level BoP accounts, we are at a loss in accurately estimating the nature and extent of integration of the states with the rest of the country and the rest of the world. In India, with the introduction of the GST in July 2017 and the consequent introduction

of E-Way bills, every transaction made by a state with itself and with the rest of the country and world is tracked by these bills. So systematic compilation of these data in E-Way statements allows measuring in some precise terms the nature and extent of integration of a state.

Kerala is now (c2023) one of the wealthiest states in the country as judged by the level of its per capita GSDP. It is also the most developed state regarding various standard human development indicators. The state is thought to be highly integrated with the rest of the country and world through trade in commodities and the movement of natural persons or cross-border migration, as it is commonly referred to. Historically, this might have been a fact as the state produced much of the spices, Natural Rubber, tea, coffee, and marine products and exported these products to other markets in India and abroad. Further, it has been experiencing migration of its citizens primarily to the rest of India, foreign countries, and especially the Middle East. But in the absence of official data on such trade, analysts are at a loss to measure the extent of integration of the state. This is, however, now made possible by the availability of this new database of E-Way Bills and allows us an opportunity to construct Kerala's Balance of Trade. The computation of Kerala's trade with the rest of the country using these GST data shows that Kerala has a huge trade deficit with the rest of India. See Table 1.

Table 1: Kerala's trade with the Rest of India and the Rest of the World (Rs in Crores)

	2018-19	2019-20	2020-21	2021-22
Import from the Rest of India	93033.29	85480.06	88629.54	117358.54
Import from Outside India	11539.91	9474.22	10050.74	11528.63
Total Import	104573.2	94954.28	98680.28	128887.17
Export to the Rest of India	30761.36	32098.44	41572.77	51522.44
Export to outside India	7346.81	8828.37	16879.6	22995.5
Total Export	38108.17	40926.81	58452.37	74517.94
TOTAL TRADE	142681.37	135881.09	157132.65	203405.11
Total trade as % of GSDP	18.10	16.71	20.38	22.43

Source: Own compilation from data compiled from GST records by the Data Analytics Unit, SGST, Government of Kerala

Kerala's trade deficit as a percentage of her GSDP is higher than that of India's trade deficit (Figure 1).

Source: Own compilation from data compiled from GST records by the Data Analytics Unit, SGST, Government of Kerala

This trade deficit is usually financed by two more items in the current account: computer software exports and remittances to Kerala. Another item that can contribute to the funding of the deficit in external balance is FDI. While the computer software exports from Kerala have been increasing and in 2021-22 reached Rs 17855.70 crores, remittances to Kerala have been falling, especially as a per cent of her GSDP: based on estimates of it by Reserve Bank of India in its 5th Inward Remittances Survey for 2020-21, remittances to Kerala is about Rs 70000 Crores working out to just 8 per cent of her GSDP.

Such a high trade deficit is not very sustainable in the future. It will have to be decreased, and there are two ways of doing so. The first is to reduce Kerala's dependence on imported products from the rest of India and abroad. The second is to increase remittances to Kerala and export computer software from the state. Of the two, the latter policy is exogenously determined as raising remittances and exports of computer software depends on a number of international factors beyond the state's control. So, the first one of reducing dependence on those products which are imported from rest of India is the most logical and practical policy option. This is precisely what is envisaged in the new policy of 'Make in Kerala' announced in the budget for 2023-24, where a sum of Rs 1000 crores has been allocated. According to this policy, an attempt has been made to understand the products for which Kerala depends on the rest of India. See Table 2.

Table 2: Major items imported by Kerala from the rest of India (Rs in Crores)

HSN Code	Top Items	Cumulative Imports from the Rest of India	Share (%)
		(2018-19 to 2021-22)	
8703	Motor Cars	45786.50	11.91
3004 & 3002	Pharmaceutical products	36714.34	9.55
2523	Portland cement	19938.92	5.19
8517	Telephone sets	18988.96	4.94
1006	Rice	15651.78	4.07
8711	Motorcycles	13369.99	3.48
7306	Other tubes, pipes	12226.39	3.18
7214	Other bars and rods of iron	10580.87	2.75
6907	Unglazed ceramic tiles	4877.20	1.27
1701	Sugar	4709.71	1.22
7108	Non-monetary gold	3026.91	0.79
7210	Flat-rolled products of iron	2307.53	0.60
	Total imports from the Rest of India	188179.10	48.94

Source: Own compilation from data compiled from GST records by the Data Analytics Unit, SGST, Government of Kerala

Based on their competitiveness if they were to be manufactured in Kerala and based on the share of imports of these items in domestic consumption, a further list of products is drawn up, which we believe are the products that have a potential for local manufacturing. See Table 3.

Table 3: Industrial products having a potential for manufacturing in Kerala

NIC Code	Description	Relative Productivity of Kerala	Share of Imports in Domestic Consumption	Share in Total Imports
2910	Motor vehicles	1.11	100.00	12.31
2100	Pharmaceuticals, medicinal chemicals and botanical products	1.49	64.47	6.39
1312	Weaving Textiles	3.74	91.29	4.97
2410	Basic iron and steel	4.11	29.41	4.80
2392	Clay building materials	1.69	84.92	2.33
2819	Other general-purpose machinery, domestic fans	1.89	95.32	2.20
2731_2732	Fibre optic cables for data transmission/ Electronic and electric wires and cables	1.09	87.45	2.03
2620_3250	Computers and peripheral equipment/Medical & dental instruments and suppliers	2.36	98.79	1.62
2920_2930	Coachworks, Trailers and semi-trailers, Auto parts	2.12	93.39	1.56
2220	Plastics products, Luggage, sports equipment	1.76	24.09	1.45
1071	Bakery products	4.38	34.19	1.26
2022	Paints, varnishes and similar coatings, printing ink and mastics	1.22	86.27	1.17
3211	Jewellery and related items	4.20	1.20	1.07
2211	Rubber tyres and tubes; retreading and rebuilding of rubber tyres	1.55	19.00	1.01
2740	Electric lighting equipment	2.07	92.69	0.58
1701	Pulp, paper and paperboard	1.19	40.97	0.46
1709	Other articles on paper and paperboard	1.54	86.89	0.33
2815	Ovens, furnaces and furnace burners	2.69	100.00	0.17
1104	Soft drinks, Mineral waters and Bottled water	1.54	24.09	0.12
2593	Cutlery, hand tools and general hardware	6.47	68.27	0.07
1520	Footwear	1.04	3.94	0.05

Note: * NIC Code 1200 Tobacco Products which has a high relative productivity has not been included for obvious reasons.

Source: Own compilation from data compiled from GST records by the Data Analytics Unit, SGST, Government of Kerala

While Table 3 provides only an indicative list of industries amenable to domestic manufacturing, a further pruning of this list is warranted. First, the products are listed at a high level of aggregation. For instance, further disaggregation of the specific therapeutic drugs, vaccines and medical devices must be done within pharmaceutical products. Second, a detailed discussion with experts is required to narrow down the specific products. Third, it should be those industries/products that do not require much land, and not contribute to environmental pollution and employs more of the skilled human resource that we have in plenty in our state. The *Make in Kerala* initiative is thus not rhetoric but an essential and logical step to industrialize a late-industrializing state such as ours. As argued, if taken to its logical conclusion, the project can bring down the state's trade deficit and provide its educated youth with an opportunity to get employed in their own state.

Status: We hope to publish it as a journal article in a SCOPUS-indexed journal

Ongoing Studies

20. Collusion with product differentiation

Rajit Biswas and Dr Neelanjan Sen

We study the formation and stability of cartels under vertical and horizontal product differentiation in the presence of cost asymmetry. The possibility of a stable cartel is lesser for an agreement that allows the lower quality product to be produced if the quality difference (net of cost) increases or the horizontal product differentiation decreases when the firms maximize joint profit. Moreover, in the presence of side payments, for a cartel agreement that does not allow the lower quality product to be produced, the possibility of a stable cartel falls if the quality difference (net of cost) falls or the horizontal product

differentiation increases. Welfare may increase after cartel formation if the lower quality good is not produced in the absence of side payments.

Status: Expected date of completion: within two months

New Research Studies

21. Trade Liberalisation and Productivity dispersion in Indian Manufacturing industry.

M.Parameswaran

22. Allocative efficiency in Indian Manufacturing Industry

M.Parameswaran

INNOVATION AND TECHNOLOGY

Completed Studies

23. Information Communication Technologies and Economics

Chidambaran G. Iyer

Sponsor: ICSSR

One key feature of the 21st century is the increasing importance of Information and Communication Technology (ICT) in daily life. ICT has been accepted as a general purpose technology and has entered all sectors of the economy. This ten-day in-house workshop held at CDS in November 2022, familiarized researchers with a wide range of topics in ICT. On the inaugural day speakers covered India's world leadership in CIS, mobile manufacturing in India, and digitalization of food security and farmer's welfare in India. The second day covered the economics of telecom industry, economics of digital platform, and the case of ICT technological change in the United States. The third day saw experts speak on the diffusion of two

technologies within digital payments, ICT and women, and a lecture on the fourth industrial revolution. The fourth day talks were on the state and the IT sector in India, digitalization and global value chains, and how innovation affects well-being. The last day of the first week saw talks on disruptive technologies and jobs in the Indian context; network effects, switching costs, and standards; technology, governance and development – the case of e-Uparjan. The first day of the second week started with a talk on convergence of ICT access across countries, diffusion of industrial robots and its implications for manufacturing and employment, the role of social media for innovation. The seventh day of the workshop witnessed session of ICT and human development, impact of ICT on employment and productivity, and the various interactions in ICT industries (between technology, business environment, society, and regulation). The second Wednesday of the workshop saw talks on the interlinkages between financial inclusion, digitization, and gender; impact of technology on wages; and the impact of ICT on red tape and corruption. The ninth day of the workshop presented studies on mobile phones and women in India; ICT infrastructure and tax revenue mobilization; and a continuation of the various interactions in ICT industries (between technology, business environment, society, and regulation). The workshop concluded with a valedictory talk on two important issues – estimating the impact of digital technologies in India and the challenges for digital regulation in India. The workshop consisted of 20 offline sessions from scholars across the country and 9 online sessions from international and national scholars. In addition, participants also presented their work on ICT in the afternoon sessions.

Status: Two-week workshop
(7 – 18 November 2022) conducted at CDS

24. Diffusion of digital payments in India, 2011-12 through 2020-21: Role of its sectoral system of innovation

Sunil Mani and Chidambaran G. Iyer

India, through its central bank, has put in place an elaborate set of institutions and technologies for diffusing digital payments in the country since 2010. In fact, the Reserve Bank of India has designated the 2010-2020 period as the digital payments decade. The union government through the union budgets too have been incentivising digital transactions. Further, two temporary shocks, namely the demonetisation episode of 2016-17 and the pandemic since March 2020 are also expected to have spurred digital payments. The transition to digital payments has been facilitated by its Sectoral System of Innovation (SSI), which consists of actors & institutions, technology/knowledge domain, and demand. Among the three important actors, the Reserve Bank of India (RBI), the statutory regulator of the payment and settlement systems in the country, is the prime mover in the digital payments SSI. It has designed and built the institutions and networks required for the digital payment ecosystem in the country. In its regulatory approach, RBI has remained technology-neutral, enabling India's digital ecosystem to develop and adopt various technologies. Though initially, the system was bank led, RBI has included non-banks to widen the scope, access, and outreach of the ecosystem over a period of time. Thus, the RBI ensured that the length and breadth of actors were considerably enhanced. Since one of the primary requirements for digital payments is to have a bank account, an extensive bank network was facilitated by RBI, which has also helped the aim of financial inclusion. For smooth functioning of various payment systems, the RBI has authorised numerous payment system operators (PSO) to set up and operate in

India. Primary aim of most of the PSO's has been to popularise the use of their payments systems. Technology/Knowledge domain can be classified as software and hardware domain. The software domain is primarily engaged in developing competing and complementary technologies to facilitate and improve the user experience for all the parties involved in a transaction. Of all the technologies introduced, UPI has been the biggest disruptor. It is remarkable for its simplicity of construction. It allows for person to person, person to merchant transactions without full bank account details on a real-time basis. Transactions can be carried out using a mobile, 24*7 and 365 days a year. No wonder India is now exporting UPI technology to other countries. The hardware domain involves the actual setting up - electronic instruments, infrastructure etc. - of the technologies for use by all the parties involved in a transaction. This involves the physical infrastructure required - which is not in place in an optimal manner - and supply of the electronic instruments necessary for the payment network. The third important pillar is demand, which has been primarily fuelled by the growth of the economy. To understand demand, we use income growth proxied by real per capita GDP growth. We find that real per capita GDP growth has been continuously falling since 2016-17, which has adversely affected demand. Supply-side activities of the RBI, other public sector stakeholders, banks, and private players in the digital payment ecosystem have tried to push demand during this period. Our analysis shows that the rate of growth of digital payments have actually declined during the decade despite the fact two of the three building blocks of the sectoral system have been strengthened. Also, public policies from both the monetary and fiscal authorities do not appear to have had any effect on the third building block, namely the demand for digital transactions.

Status: Published in Asian Journal of Technology Innovation, DOI: 10.1080/19761597.2022.2125883

25. Entrepreneur, Innovation systems and Institutions in Emerging markets: Observations from two Indian case studies

Chidambaran G. Iyer

Two sectors - petroleum refining and mobile phones services - stand out in terms of competitiveness in India, an emerging market. What is also particularly interesting is the presence of the same entrepreneur in both these sectors. Using the functions of innovation systems approach this paper presents evidence to highlight the influence of the entrepreneur on institutions in both - one sunrise and other mature - technology industries. We then trace this entrepreneur's impact in these industries, and find that the entrepreneur was able to primarily influence only the diffusion but not the kind of technology used in both the industries. Given the case studies, we argue that since emerging markets generally have weak institutions, *ceteris paribus*, entrepreneurs who have institutional entrepreneurship skills have higher chances of success in upcoming sectors than those who do not have institutional entrepreneurship skills. Another policy pointer that emerges from the study is that in emerging markets if faster diffusion of a technology is the aim, then policy makers should look around for entrepreneurs with institutional entrepreneurship skills, who may be the best actors for the job.

Status: Publication under peer review

26. Process Innovation in Low-tech industries in India: An Empirical exploration

Chidambaran G. Iyer

This is the first paper in the Indian context that uses existing secondary data to empirically determine the existence of process innovation in Indian low-tech industries. Literature expects that process innovation is triggered in these industries through investments in computer equipment and software, investments in plant & machinery, and human capital. Our analysis shows that among Indian low tech firms' investment in computer equipment and software is the most popular strategy to trigger process innovation followed by investment in plant & machinery. We find that these factors have a greater impact on firms that export products and import inputs than on firms that export products but do not import inputs. In other words, export import orientation of firms induces a differential impact of these factors on process innovation.

Status: Publication under peer review

27. Diffusion of Digital payments in India: A tale of two technologies

Chidambaran G. Iyer

We compare the diffusion/usage of two digital technologies - card payments and Unified Payments Interface (UPI) from India - using the functions of innovation systems approach and the microeconomic literature on technology adoption. UPI usage in India has exceeded even the most optimistic prediction, which we find is due to its design that has helped keep costs down. Card payment usage on the other hand has grown at relatively modest rates, primarily due to the cost it imposes. Even in the card payments network, whenever costs were kept low, usage has increased. Using these two experiences we argue that

if the functions of innovation systems are able to reduce the cost of adoption and cost of use, then the technology diffuses faster. This implies that innovation systems that ensure lower costs tend to be more successful and hence policy should encourage those functions of innovation systems that lower these costs.

Status: Publication under peer review

28. Innovation performance of two high-technologies industries from India, A comparative analysis of India's Pharmaceutical industry vis-a- vis computer software services industry

Sunil Mani

India is on the path to becoming a host for high technology industries, be it manufacturing or services. High technology exports in India's commodity exports have increased from virtually zero in the 1990s to almost 11 per cent in 2021 (World Bank, 2022). More than 50 per cent of our services exports can now be considered high-tech (c2022). The two industries that can enable the country to be launched into the club of high technology are its pharmaceutical manufacturing and computer software services industries. Mani (2010 and 2014) has shown that much of the innovation output of the country, as indicated by patents, has gone towards these industries, especially when foreign patenting (read as at the USPTO) by Indian inventors is considered. Changes in the international governance rules concerning patenting, especially the TRIPS compliance requirement, which India had to implement in 2005, have imposed new challenges to the pharmaceutical and computer software services industries. Measuring innovation is an imprecise affair and it is usually done using a variety of conventional indicators (R&D expenditure, patents granted etc) and a whole host of new indicators such as those thrown up by innovation surveys (Smith, K, 2014). The

paper will assess how the two industries have negotiated the challenges imposed by changes in international governance rules affecting intellectual property rights. This is accomplished by evaluating the innovative performance of the two industries. The analysis will then distil out some industry policy priorities to improve their respective innovative performance.

The paper is structured into five sections. Section 1 will map out eight distinctive features of India's patent regime focusing essentially on the post TRIPS phase. Section 2 will discuss the rationale for selecting the two industries for in-depth examination. Sections 3 and 4 analyses the cases of the pharmaceutical and computer software services industries and section 5 concludes the paper.

I. Stylised facts about India's patenting performance in the Post TRIPS phase⁴

India made her patent regime TRIPS compliant with effect from January 1, 2005. One of the major changes as a result of this compliance is that India started offering patent protection to pharmaceutical, agrochemical and food products for which hitherto

- There has been a surge in applications and patent grants since TRIPS compliance
- Number of patents applied for by Startups and SMEs have registered an increase
- Foreign domination of patent grants and in force continues although in patent application there has been decline in the share of foreign applicants in 2020-21 and 2021-22
- Share of universities in patent applications have increased in the last four years although most of these are by

⁴ In working out the ideas contained in this section, I have relied on Mani (2020)

recently established private universities

- Industry-wide distribution shows domination of chemical and pharmaceutical patents followed by mechanical. Computer and electronics account for only about 9 per cent
- State-wise distribution of patent applications shows that four states account for a significant share of total applications: Maharashtra, Tamil Nadu, Karnataka and Delhi
- Despite increase in the number of patent examiners, the time taken to process patent applications have only shown a marginal improvement
- Most patents granted and those in force are not worked

II. Rationale for selecting the two industries

- The two industries together constitute 18 per cent of total exports of the country and both the industries have a trade surplus
- Both industries are very much globalised and recognised internationally- *pharmacy of the world* and *world leader in exports of IT services*
- The state and the market have played an equal role in achieving the success that they have accomplished
- Both the industries are clustered in certain select locations- the pharmaceutical industry is clustered in the Mumbai-Pune- Aurangabad, Hyderabad, Bangalore-Mysore-Chennai areas and the IT services industry in Bangalore, Hyderabad, Chennai and the National Capital Regions. Clustering improves the probability of knowledge transfers leading better innovation performance

III. Patenting performance of the pharmaceutical industry

The share of pharmaceuticals in total patenting at the IPO and at the USPTO has decreased since TRIPS compliance although in absolute numbers of itit appears to have increased. See Figures 1a and 1b

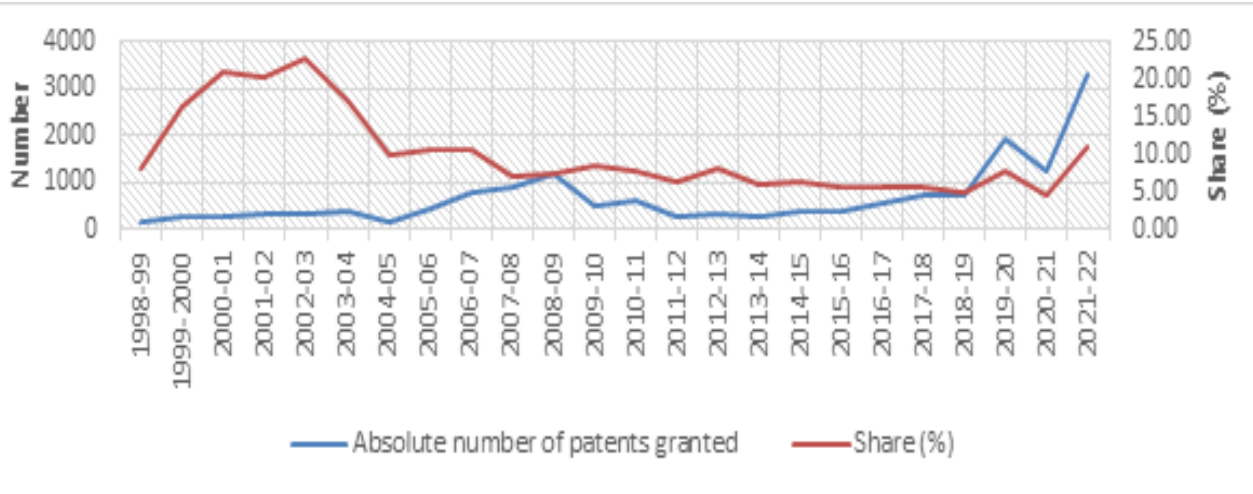
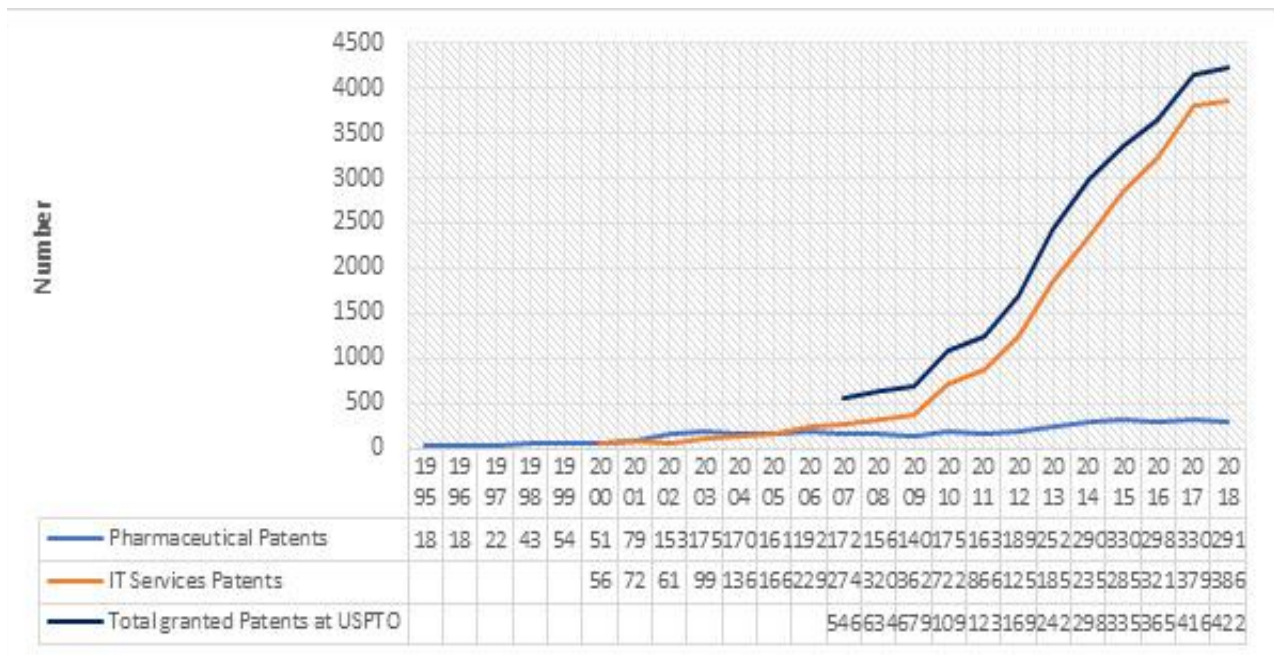


Figure 1a: Trends in the number and relative shares of patents granted to the pharmaceutical industry at the IPO



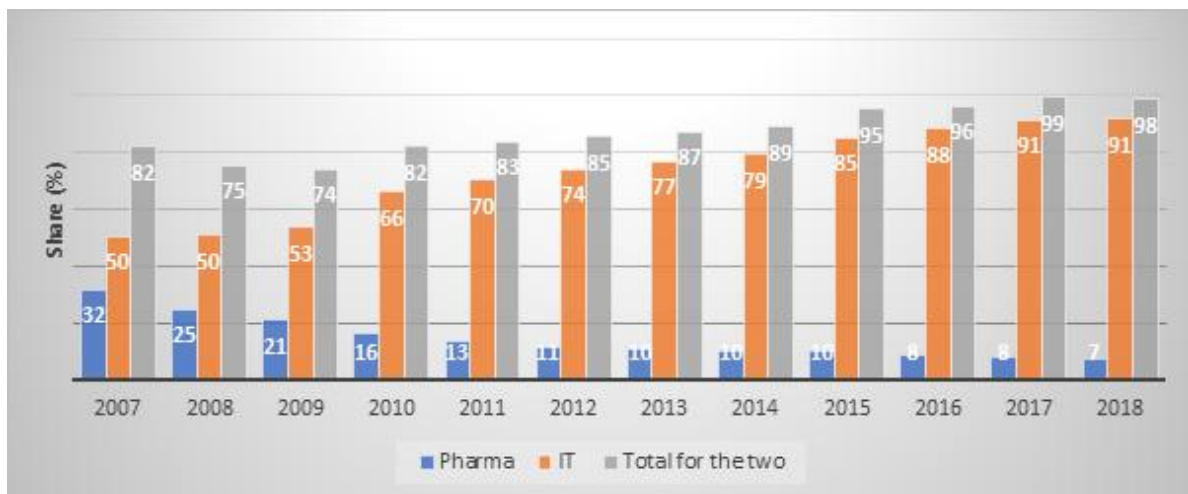


Figure 1a: Trends in the number and relative shares of patents granted to the pharmaceutical industry at the USPTO

Source: IPO (various issues) and PatentsView for USPTO

Most of the USPTO patents in pharmaceutical technologies are still held by domestic pharmaceutical companies, but the share of MNCs operating from India has been slowly been increasing.

Indian pharma companies are generic drug manufacturers. So, employing patent data to measure their innovativeness may not be an appropriate indicator. Abbreviated New Drug Applications (ANDAs) issued by the USFDA may be a better indicator for such firms. During the 2010-2019, the USFDA approved total OF 5,768 ANDAs. Indian companies remained dominant and secured 35 per cent of the total ANDAs issued by the USFDA. In short, innovative performance of Indian pharma firms does not seem to have been dampened by the imposition of TRIPS requirements.

IV. Patenting performance of the computer software services industry

In the period since 2016-2017, the external policy environment for patenting software services have improved. See Figure 2

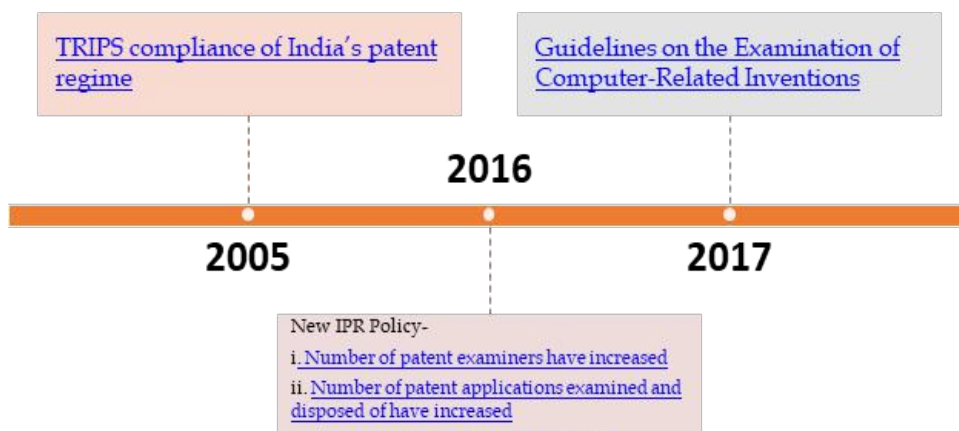


Figure 2: Changes in the policy environment for software patents at the IPO

Source: Own compilation

Analysis of USPTO data up to 2015 (Mani (2014) and Porto, Lee and Mani (2021) show that foreign companies dominated the patenting landscape. However, the three Indian IT services companies have improved their patenting record more recently and especially since 2015. See Figure 3

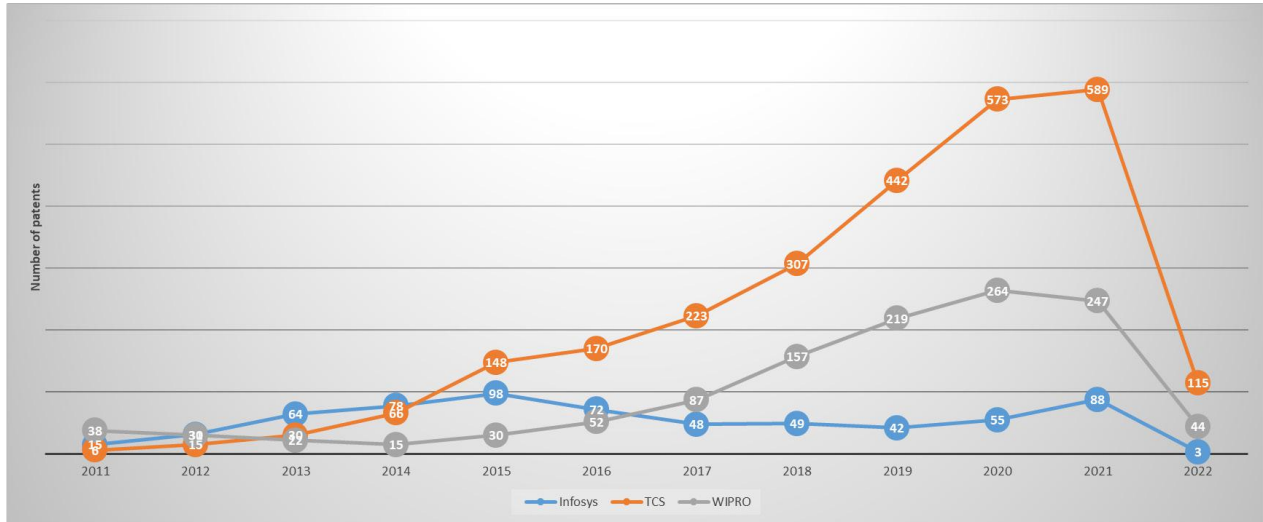


Figure 3: Trends in the number of patents granted to three of India’s leading computer software services companies

Source: PatentsView.org

The three companies have a very globalised nature of patent production although still much of their patenting emanate from R&D done in India. Analysis of their forward citation shows that their patents are cited by some of the leading IT services companies such as IBM, Microsoft Qualcomm, Oracle and Samsung. Also because of IT services patents, Bangalore has become the innovation hotspot in the country accounting for about 62 per cent of the USPTO patents granted to Indian inventors. See Figure 3.

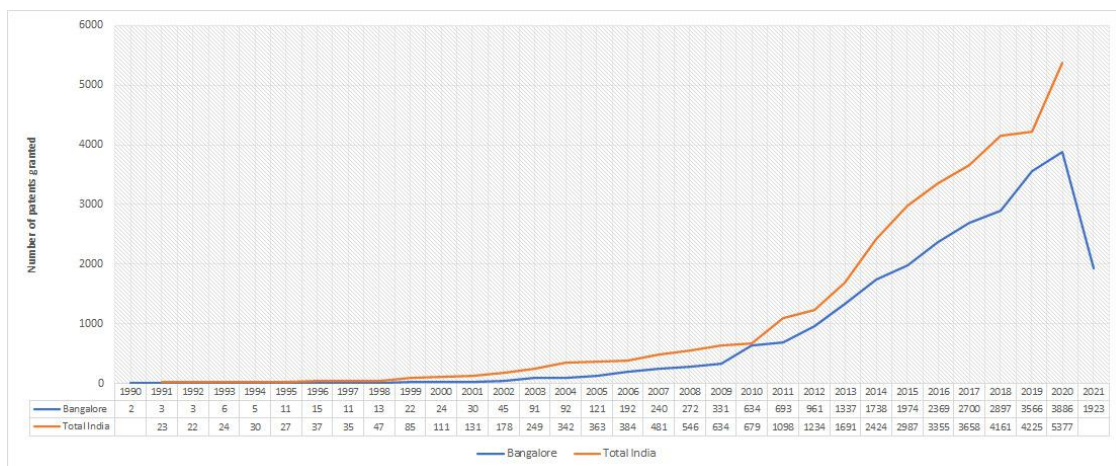


Figure 3: Bangalore as the innovation hotspot in the country

Source: PatentsView.org

V. Conclusions:

The main conclusions of the study are summarised in Table 1

	Patenting performance	Relative roles of domestic vs MNCs
Pharmaceutical	<ul style="list-style-type: none"> • Has increased the patenting performance at the USPTO in an absolute sense • Growth rate of patenting has decreased • Has a very good record in securing ANDAs from the USFDA 	<ul style="list-style-type: none"> • Dominated by domestic enterprises
Computer software	<ul style="list-style-type: none"> • Has increased patenting performance both within India and abroad • Inserted into the GVC for computer software services 	<ul style="list-style-type: none"> • Dominated by affiliates of MNCs operating from India

Status : Process of submitting to a refereed international journal

*Ongoing Studies***29. Bivoltine Sericulture in India: An Innovation system perspective**

Chidambaran G. Iyer

Compared to Indian silk yarns, Chinese yarns are lighter and smoother with less winding breakage thus lending itself well to power looms. China is also the leading supplier of raw silk in the world, no wonder power looms prefer Chinese silks to the more durable but less dependable Indian silk. Assuming other things are the same, there is a need to make Indian silk more reliable in terms of availability as well as quality. Improvement in productivity and quality of silk largely depends on genetic potential of silkworm genetic resources. The genetic resources in India have already been fully exploited, as a result there is very little scope for improvement in silk productivity and quality with the locally available

genetic resources. Hence, efforts are being made by research institutions to procure better silkworm breeds with desired traits from other sericulture practicing countries like Japan, China, Bulgaria, Uzbekistan and Brazil. This is not an easy task, as such silkworm breeds from other countries are susceptible to infections and high level of heat, both prevalent in the southern silk growing states of the country. The bivoltine sericulture cluster promotion programme is an example of the effort to introduce such better varieties in the country. In this paper, using the innovation systems perspective we understand the bivoltine sericulture cluster promotion programme. Initial findings suggest the importance of capabilities of the downstream users of the innovation in the success of the innovation generated upstream.

30. Process innovation in Medium low-tech, Medium high-tech, and High-tech industries in India

Chidambaran G. Iyer

Initial findings suggest the presence of process innovation in these sectors. However, the search for an explanation of these initial findings has led us to an in-depth study for each individual sector, which is currently on-going.

Research theme: Innovation and Technology

New initiative/Research Plan

31. Implications of Mergers and Acquisitions and Antitrust issues in Knowledge and Technology Driven Economies

Beena P L

Antitrust issues related to the innovation and competition has attracted scholarly

attention especially after the emergence of the new digital economy, which is controlled by the US and China. US and China accounts for 50 per cent of the world's hyperscale data centres, 70 per cent of the world's top AI researchers, the highest rates of 5G adoption, 94 per cent of all funding of AI start-ups in the past five years and almost 90 per cent of the market capitalization (UNCTAD,2021). Further it is seen that the participation of large sized enterprises in e-commerce transactions is double the size of the small and medium-sized enterprises and this gap is widening in absolute terms in many countries (OECD, 2019b as cited in UNCTAD, 2021). It is very obvious that leading firms, including start-ups and tech companies in the data driven digital platforms globally, have reinforced their competitive positions by acquisition of their potential rivals (UNCTAD, 2019; 2021). The world's largest digital platform firms such as Apple, Microsoft, Amazon, Alphabet (Google), Facebook, Tencent and Alibaba have been able to strengthen their dominant position in the digitalised economy and control the global data value chain (UNCTAD, 2021). It is well argued in the literature that the pattern of M&As could be associated with the technological and regulatory shocks (Kaplan 2000 as cited in Andrade, Mitchell and Stafford, 2001). Leading firms in the Indian manufacturing, banking and service sectors as well as foreign owned firms in India also adopted M&As as growth strategies (Chandrasekhar,1999; Mazumdar 2015; Beena 2001;2014;2022;Bhattacharjea, 2016).

Although, there are many empirical studies in the Indian context on innovation and intellectual property, especially after the implementation of TRIPS, most of those studies either looked at the association of inputs (example, R&D expenditures) and outputs (example, patents, new products) (Basant, 2021; Dhar and Joseph, 2019; Mani and Nelson, 2013; Kanwar, 2022; Arora,

2001) or on the technological transfer through FDI inflows and its impact on productivity (Kathuria, 2010; Kachoo, Ruchi and Madan, 2018). However, there has been hardly any efforts to understand the growth strategies of firms in the Indian knowledge and technology driven economy during the new IPR regime, how it later facilitates the firms to be dominant players in their respective industries and its antitrust implications. Similarly, there is a need to address the anti-competitive effects of start-up acquisitions in the new digital economy in India although there are some studies available at the global level on entrepreneurship, competition policy and innovation dynamics (Glader 2006; Alves, Gonzalo, Lyra 2019; Khan 2018; UNCTAD, 2021).

With the rising regulatory challenges facing the technology markets, there has also been a growing debate in recent years on what should be the core focus of antitrust regulation which could facilitate healthy competition, improve the welfare of consumers and workers and spur economic growth (Shapiro 2019; Khan 2017;2019). In some jurisdictions, including the US, the focus has been on consumer welfare in line with the Chicago school of antitrust analysis. This makes regulating the high technology market even more challenging where the 'consumers' do not directly pay a price for using these platforms (Khan, 2017;2018;2019;). There are studies in the context of developed and developing countries pointing out the limitation of the existing approach and suggesting broadening to include issues such as consumer privacy, personal data protection, consumer choice, switching costs, lock-in effects, and market structure (Gonzalo, Marcos an Camila, 2019; Cunningham, Ederer, Ma,2021). Regulating challenges are compounded in developed and developing countries with relatively young antitrust regulators

such as India which do not have enough resources or experience to conduct elaborate investigations against high tech giants. Given this context, the study further seeks to explore the antitrust regulations evolved in the US and EU and the evolution of analytical approach developed towards handling the 'abuse of dominance'.

Status: New initiative

32. Diffusion of Digital payments in India: A tale of two technologies

Chidambaran G. Iyer

We compare the diffusion/usage of two digital technologies - card payments and Unified Payments Interface (UPI) from India - using the functions of innovation systems approach and the microeconomic literature on technology adoption. UPI usage in India has exceeded even the most optimistic prediction, which we find is due to its design that has helped keep costs down. Card payment usage on the other hand has grown at relatively modest rates, primarily due to the cost it imposes. Even in the card payments network, whenever costs were kept low, usage has increased. Using these two experiences we argue that if the functions of innovation systems are able to reduce the cost of adoption and cost of use, then the technology diffuses faster. This implies that innovation systems that ensure lower costs tend to be more successful and hence policy should encourage those functions of innovation systems that lower these costs.

33. Process Innovation in Indian Pharmaceutical Industry

Chidambaran G. Iyer

In this paper we hypothesize that pharma firms that have not registered their R&D

units depend on process innovation more than those that have registered their R&D units. To prove this hypothesis, we have worked on both cross sectional as well as panel data set. Initial results seem encouraging, there seem to be differences in the innovative strategies among these two groups.

New initiatives

34. Technology transfer and collusion with multiple firms and product differentiation.

Rajit Biswas and Dr Neelanjan Sen

35. Automation and Employment

Sunil Mani

The paper will analyse the employment implications of two Industry 4.0 technologies that is predicted to have significant labour market implications. The study will consider the employment implications of robotics and AI. While robotics may affect only routine jobs that rely on non-cognitive skills, generative AI has the power to automate non-routine tasks that requires cognitive skills. The challenge for policymakers is to foster progress and innovation in AI while shielding workers and consumers from potential types of harm that could arise. The study will analyse the generation of these new technologies in terms of the counts of scientific publications and patents and will critically assess its labour market implications in terms of jobs destroyed and new jobs created as a result. It is more in the nature of an issue-specific engagement with the emerging literature on this topic combined with an analysis of data on the diffusion of multipurpose industrial robots in manufacturing across Asian countries including that of India.

36. Green Technology Innovations in India: An analysis of its sectoral system of innovation

Sunil Mani

At the 26th session of the Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC), India expressed to intensify its climate action by presenting to the world five nectar elements (*Panchamrit*) of the country's climate action. The update is also a step towards achieving the country's long-term goal of reaching net zero by 2070. Earlier in 2015, India submitted its Intended Nationally Determined Contribution (NDC) to UNFCCC. The 2015 NDC comprised eight goals; three of these have quantitative targets upto 2030 namely, cumulative electric power installed capacity from non-fossil sources to reach 40%; reduction of the emissions intensity of GDP by 33 to 35 per cent compared to 2005 levels and creation of additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover. As can be seen, the actual achievement of these laudable targets crucially depends on innovations in green energy and the increased diffusion of green transportation consisting of a significant switch over to Electric Vehicles (EVs) from those based on Internal Combustion Engines. Over the years, India has set up an elaborate set of policies and institutions to develop locally the technologies that are required for the production of green energy from solar, wind, small hydro and biomass and also the development of EVs. An interesting aspect of green innovations in India is the fact that both the state and markets have played an equal role in generating and diffusing green innovations. A sectoral system of innovation has got articulated with all its building blocks like key actors and institutions, technology domain and

demand receiving an impetus from both the government and the private sector industry. In this context, the purpose of the proposed study is to survey and evaluate the generation and diffusion of innovations in green energy sources (read as solar and wind) and EVs in the country.

The study is proposed to be structured into three sections. In the first section, we will map out the production of green energy and EVs in the country. As of now, approximately a quarter of the installed capacity for electricity in the country is from green sources (Table 1). Within green sources, two technologies stand out namely solar and wind. Production and sale of EVs in the country has been increasing rapidly although much of the sales is in scooters, bikes and three wheelers (Figure 1). Range anxiety and EV prices are the two most hindering factors to a faster diffusion. This calls for improvements in the battery technology and charging

stations. The second section analyses three green innovations in terms of detailed patent analysis. We analyse both the patents issued by the Indian Patent Office and also unique Indian patents in green technologies from the Derwent Patent Index. The third section will undertake a detailed analysis of the building blocks of the sector in terms of national and international policies aiding in the creation and diffusion of green innovations, R&D by both public research institutes and in-house R&D centres in private sector firms and the demand for green technologies which in some cases like EVs too are created and aided by regulatory policies and financial subsidies provided by the state. Green energy sources covered in the study include both solar and wind and EVs cover passenger cars, three-wheelers (auto rickshaws or Tuk-Tuks) and two-wheelers (electric scooters and motorbikes) and battery technology.

Table 1: Installed Capacity in Green Energy in India as on March 31, 2021

Green Energy Sources	Installed Capacity in GW	Share (%)
Small Hydro Power	4.75	5
Wind Power	38.62	42
BM Power/Cogen	10.15	11
Waste to Energy	0.17	0
Solar Power	37.46	41
Total Green Energy	91.15	100
Total installed capacity from all sources	375.32	
Share of green energy (%)		24.29

Source: Ministry of Power, Government of India

Figure 1: Trends in sales of EVs in India (in numbers)

Source: Society of Manufacturers of Electric Vehicles, <https://www.smev.in/statistics>

LABOUR, EMPLOYMENT AND SOCIAL SECURITY

Completed Studies

37. Wage Productivity decoupling in India

Vinoj Abraham and Sasikumar S K

Notwithstanding the robust growth in value added per worker, the wage growth had been dismal during the period 2011-12 to 2018-19. During the period 2011-12 to 2018-19 the labour productivity growth was 5.9 percent per annum while the average wage growth was negative -0.5 percent per annum, implying an absolute decline in real wages during a period of robust productivity growth. Theoretical predictions argue a strong association between productivity growth and wage growth. Such a divergence in productivity growth and wage growth in the economy is of grave concern. It implies that the workers would be receiving a smaller share of the value added as wages, while a larger share of such value addition would be distributed as non-wage components.

Analyzing the factors that influenced wage growth during the period 2011-12 to 2018-19 the sectoral GSDP growth did not have any scale effect on the wage growth while labour productivity growth had weak effects on the wage growth. Comparing between regular and casual wage growth models, it can be seen that as the wage gap between regular wage workers and casual wage workers widen the demand for casual wage workers increases while that of regular wage workers decline. Conversely as the wage gap declines, it is the growth of wages of regular workers that increases in comparison to the casual wage workers. This indicated that the segmented nature of the labour market is probably diluting. The increasing share of the relatively lesser waged workers, female workers, seems to

reduce the overall wage growth of regular workers.

As can be evidenced from the above analysis, there is no supporting evidence to claim that the patterns in wage growth in India currently is reflective of the labour productivity trends in the aggregate. If any, available evidence suggest that the observed productivity-wage gap in the organised sectors now becoming a pan-Indian phenomenon. During the dynamic growing phase of the Indian economy, during 1990s to early 2010s the widening gap between productivity and wages implied unequal distribution of the value added. However, in the stagnant economy phase since the mid 2010s this would imply that wage would be further driven down. In such an economic condition, employers may resort to cost cutting methods to maintain profits, such as feminizing the workforce, regularising the workforce at low fixed costs components. The wage growth may also respond to structural features such as rising unemployment in the economy, which in turn is partially due to the changing demographic features such as the youth bulge, but also due to the poor growth performance of the economy.

Status : Under consideration in a journal

38. Labour and employment in the coffee sector

Vinoj Abraham and Anuja V P

In the context of apparent shortage of labour in the coffee growing sector, this paper looks into this aspect. The seasonality factor in coffee employment makes labour availability a serious concern. With the early institutional arrangements in coffee breaking down, new arrangements of contractual employment for coffee plucking is becoming prevalent. The tight labour market conditions in the sector, along with the fragmented coffee plantations

augurs not well for the growers. With low productivity and increasing wages the sector may find difficulty in remaining profitable.

Status : To be published in edited volume on plantations

Completed Research Project

39. Labour and Employment in the Tea Sector

Vinoj Abraham and Anuja V P

Sponsor: NRPPD

The study looks into the employment and working conditions of workers in the tea sector. Using available secondary data the focus of the paper is the implications of changing organisation of production in the tea sector on employment. The northern producing regions have seen a large increase in small tea growers while the southern tea producing regions have seen the emergence of mechanisation in tea plantations. These two phenomena has had different implications for employment and labour. For the northern states self employment has become the central form of employment, for the southern states labour replacing technology is making labour redundant.

Status : To be published in edited volume on plantations

40. Child care and Educated Women's Labour Market Behaviour: Evidence from Kerala

Thiagu Ranganathan, Tirtha Chatterjee and Praveena Kodoth

Sponsor: JPAL

The declining female labour force participation rate (LFPR) in the Indian economy over last three decades has generated considerable debates and

scholarly attention (Dhanaraj and Mahambare 2017, Klasen and Pieters 2015, Chatterjee, Desai, and Vanneman 2018, Sarkar et al, 2019, Deshpande and Singh, 2021, Mahajan, 2022). Even prior to this has been the observed trend of low and declining employment among women in Kerala. This low and declining women's work participation in the state of Kerala is of a serious concern especially in view of gender parity in the state's achievements in other dimensions of human development, i.e., education and health (Kodoth and Eapen, Mathew, Sebastian). In this background, it is to be noticed that commendable progress in women's education in Kerala did not translate into commensurate levels of employment. However, there are notable differences in women's employment at different levels of education. Relatively high levels of employment among women with higher education have been accompanied by high levels of unemployment leading to high labour force participation rates (LFPR) in this category. This trend is in contrast to women with secondary and higher secondary levels of education, who registered high unemployment rates but had the lowest employment rates.

There have been various explanations provided for the low labour market participation of women in Kerala. Supply side factors, especially rigid job preferences have been underlined in empirical research that probed the high unemployment among educated women (Devi, 2002; Government of Kerala, 2005, Kodoth and Eapen, 2005). Lack of employable skills is also conjectured as a factor contributing to low LFPR (Nagaraj, 1999). Observing a dip in labour force participation since 2004 on account of a reduction in unemployment, Mathew (2015) proposed that there could be a discouraged worker effect at work. Focussing on women with higher education, Sebastian (2019) analysed primary data to

show that the younger cohort of higher educated women had high levels of aspirations to work but were constrained by housework and care responsibilities. Her work suggested that there could be an emerging pattern of women moving in and out of the labour market to accommodate care responsibilities.

Against this background, we seek to develop a proposal to initiate a good quality and affordable child care intervention with the potential to increase women's labour market participation. To have a better understanding of the extent and nature of the constraint posed by child care responsibilities to women's work participation, we have analysed the available secondary data and conducted primary research in a rural and urban ward in the Ernakulam district in Kerala. We focus on higher educated women (post higher secondary) among whom we anticipate a high level of aspirations and their qualifications may play a lesser constraint in employment.

Status: Submitted as a report to JPAL

Ongoing Studies

41. Return Migration and Economic Reintegration in Kerala

Vinoj Abraham and Dona M

Sponsor: Kerala in the World Economy unit at CDS, instituted by Govt. of Kerala

While international migration provides myriad opportunities for the emigrant and their place of origin, their return to their origin throws up multiple challenges. Kerala, till recently the hub of international migration to the gulf region is now having an increasing flow of return migration even as emigration is slowing down. For a developing region highly dependent on remittances even as high unemployment persists return migration poses an

economic challenge. In this context re-integration of these return migrants within the local economy is of importance. Thus, this paper examines the trends, patterns and nature of return migrants to Kerala. It further looks into the factors that determine the participation in the local labour market after they return. In the end a review of return migrant policies is attempted to open policy choices for the local economy.

New initiatives

42. Rural Non-farm Sector Employment in India: Shift or Diversification

Vinoj Abraham

The rather slow transition in the rural employment from farm to non-farm sector in India is well documented. Non-agricultural employment in rural India stood at 39.2 percent against agricultural employment of 60.8 percent in 2020-21. Spanning over the last two decades the share of non-agricultural employment in rural India increased only by 15.5 percent. That the structural transformation in employment had lagged behind output transformation in India is well known. Structural transformation implies that with the growth of the urban industrial/service sector and its interlinkages with the rural economy, employment opportunities in the rural non-farm sector would enhance, and the rural labour market would tighten. This would cause a change in the employment pattern from farm to non-farm sectors.

However, evidences do suggest that economic growth in India has a narrow base, mostly propelled by a few sectors in the urban service sector in India with little interlinkages with the rural economy. The rural economy, even when continues to be the bulwark for food security in the country, its weak or absent markets and their integration imply that the growth impulses in the urban services are only

weakly percolating to the rural markets. In this context, the movement in employment from agriculture to non-agriculture sector in the rural economy may occur as a risk reducing response to poor agricultural employment opportunities. Thus, diversification in employment would appeal to risk mitigation, as opposed to shift in employment from farm to non-farm which may be more akin to earnings maximization.

Shift and diversification are rural household employment strategies in response to economic impulses. Analytically, employment shift is a movement from one activity to another, in this case from farm to non-farm activity. Diversification is the spread to more than one activity, here farm and non-farm during the same period. Both Shift and Diversification could occur at the individual level and at the household level. The decision-making process in the rural context often being a joint decision making for the entire household, the shift and diversification can co-exist within households. Using this analytical frame of shift and diversification among individuals and households we analyse the nature of change in employment from agriculture to non-agriculture in rural India during the last two decades.

Firstly, we focus on the trends and patterns in the employment in the rural economy. Secondly, we dissect the change in non-farm employment into various categories of shifts and diversification in employment. Thirdly, drawing from structural transformation literature and livelihood literature we try to understand what are the impulses to which such change in rural employment is taking place. Given the vast and diverse rural economy of India we analyze these changes from a regional perspective as well.

Status: Expected date of completion: August 2023

Research Plan

43. Intergroup inequality in the labour market

Vinoj Abraham

Labour market inequality arising out of group characteristics has received much attention in the recent past. Caste, religion, ethnicity and other identities have played their role in keeping the labour market segregated. The labour market outcomes have been persistence of earnings differences. The proposed study would look into the question of labour market inequality including mobility questions.

MACROECONOMIC

PERFORMANCE

Completed Studies

44. Modern services led growth and development in a structuralist dual economy: long run implications of skilled labor constraint

Gogol Mitra Thakur

Motivated by the South Asian experience, this paper examines the role of expansion of skilled labor force for modern services led growth and development in economies with low average educational attainment. The model economy consists of two capital-using sectors - a service sector that employs only skilled labor and an industry sector that does not require skilled labor. The service sector represents modern skilled-labor intensive services whereas the industry sector represents a typical South Asian industry. Supply of unskilled labour is unlimited but skilled labor is relatively scarce and grows at a finite rate. Increase in the skill premium only partially explains growth of skilled labor supply while the rest depends on autonomous factors, which may be influenced by education policies of

the government. The main result specifies a set of necessary and sufficient conditions for existence of a unique steady state characterized by balanced sectoral growth at a rate determined by the autonomous part of skilled labor growth. A low wage share and stagnant investment conditions in the industry sector are conducive for both existence and local stability of this steady state. The model shows that supply-side factors may completely determine steady state growth rates in structuralist models despite presence of unemployed resources.

Status: Conditionally accepted for publication at *Metroeconomica*

45. Natural disasters and economic dynamics: Evidence from the Kerala floods

Gogol Mitra Thakur, Robert CM Beyer and Abhinav Narayanan

Exceptionally high rainfall in the Indian state of Kerala caused major flooding in 2018. This paper estimates the short-run causal impact of the disaster on the economy, using a difference-in-difference approach. Monthly nighttime light intensity, a proxy for aggregate economic activity, suggests that activity declined for three months during the disaster but boomed subsequently. Automated teller machine transactions, a proxy for consumer demand, declined and credit disbursement increased, with households borrowing more for housing and less for consumption. In line with other results, both household income and expenditure declined during the floods. Despite a strong wage recovery after the floods, spending remained lower relative to the unaffected districts. The paper argues that increased labor demand due to reconstruction efforts increased wages after the floods and provides corroborating evidence: (i)

rural labor markets tightened, (ii) poorer households benefited more, and (iii) wages increased most where government relief was strongest. The findings confirm the presence of interesting economic dynamics during and right after natural disasters that remain in the shadow when analyzed with annual data.

Status: CDS Working Paper Series No. 508 (June 2022) [Also NIPFP Working Paper Series No. 383 (April 2022) and Policy Research Working Paper Series, The World Bank, No. 10084 (June 2022). Currently under review for journal publication]

46. Inquiry into Households' Confidence Levels in Various Institutions in India: A Temporal Assessment from the IHDS

Hrushikesh Mallick, Udaya Shankar Mishra⁵ & Balakrushna Padhi⁶

This study attempts to assess the variations in households' confidence levels in various sociopolitical institutions with varying socioeconomic and cultural characteristics across major Indian states based on two rounds of the India Human Development Survey (IHDS-I-2004-05 and IHDS-II-2011-12). It traces the presence of a lower confidence level of households in governance institutions compared with other institutions, implying a deficit of households' confidence in this component against the overall confidence score, which marginally improves over time. The states Jammu and Kashmir and Mizoram have a lower level of confidence scores in governance and justice as compared to other states. On analysing the socioeconomic determinants of households' confidence in two rounds of IHDS separately, this

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study observes that regional and economic factors are more involved in shaping the confidence levels of households than any other socioeconomic attributes.

Status : Communicated with Review of Development and Change

Completed Research Projects

47. Long-term Trends in Revenue Mobilisation of the Indian States in the Context of Indirect Tax Reforms

Hrushikesh Mallick

Sponsor: ICSSR

The study considers all the major and minor states of India and compares the tax buoyancy of each state on the basis of whether they are more producing states or less producing states and then examines which states are witnessing greater increases in own indirect tax revenues over 2001-2021. From the trend analysis, it is seen that many states had experienced falling own indirect tax revenues (TCS) to total revenues even prior to the implementation of GST, but many states also have witnessed dramatic fall in indirect tax revenue (TCS) shares expressed in proportion to their total revenues since the implementation period of GST (2017-18), comparing prior years. It also shows that some states like Karnataka and Kerala have experienced some revival during the last reporting period (2021-22) after witnessing continuous falling trend in their own indirect tax revenue shares since implementation period 2017-18. Moreover, although on average, it shows there is a declining share of own indirect tax revenues in total tax revenues of all states, but there are some notable exceptions observed for the minor less producing states which have experienced

drastic increases in indirect tax revenue shares after the implementation of GST. Further, we examine the own indirect tax revenue buoyancy of states by incorporating the effects of VAT and GST regimes including controlling the business cyclical fluctuations in an extended model. We also conduct panel analysis by grouping the Indian states into homogenous groups based on their industrial production share and examines how different state groups are responding to two important tax regimes (VAT and GST) more favourably with incorporation of broader determinants. After observing different state groups respond differently to both the tax regimes, it further carries out an efficiency analysis of tax policy regimes as to assess whether the current indirect tax reform regime of GST is ensuring more efficiency gains in indirect tax revenues mobilisation of states than the earlier tax regime of VAT. It applies the stochastic frontier analysis(SFA) to analyse the efficiency of tax regimes from a comparative perspective and finds that the current regime is making some improvement over the earlier tax regime of VAT in India, when all states are taken together. However, when examined for all major and all minor states separately, it is seen that the current regime has not brought significant efficiency gains in mobilisation of indirect tax revenues for all major states, while it has brought some efficiency gains for minor states. Moreover, it is evident that although the new system shows some improvement in efficiency, but may require reasonable longer timeframe to show up the sign of significant improvement in terms of efficiency gains in mobilization of tax revenues comparing earlier tax regime. Comparing the tax buoyancy of states, we observed that the states are achieving greater buoyancies in tax revenue mobilisation irrespective of their income levels as well as the criteria of relatively

more producing or less producing states.

Status : To be formatted for publication

Ongoing Studies

48. Demand-led growth, education and wage inequality

Gogol Mitra Thakur and Pintu Parui

We propose a simple three-class model of growth and distribution in the post Keynesian/neo-Kaleckian tradition consisting of capitalists, educated workers and uneducated workers. Capital stock is owned by capitalists, educated workers supply skilled labor and uneducated workers supply unskilled labor. Output is demand constrained but requires capital, skilled and unskilled labor as complementary inputs. Supply of unskilled labor is perfectly elastic but skilled labor is scarce. Supply of skilled labor increases overtime as uneducated workers acquire education and transform into educated workers. Education is provided by the government, which employs a fraction of educated workers by taxing profits for the purpose. Long-run dynamics involves evolution of skilled-wage premium and the ratio of skilled labor to capital overtime. This paper is intended to fulfil a gap in the heterodox theoretical literature on growth as connections between demand-led growth, education and inequality remain unexplored. In particular, we are interested in highlighting the role of public education system as a source of autonomous demand and examine the effects of expansion of public education on growth and distribution.

49. Inflation, output growth, inflation uncertainty and output growth uncertainty: a two-step approach with

structural breaks

Gogol Mitra Thakur, Kushal Banik Chowdhury and Srikanta Kundu

Theoretical studies on relationships between inflation, output growth and their uncertainties propose multiple competing hypotheses. On the other hand, the empirical literature on this topic, despite being extremely vast, also presents a mixed picture. We revisit this question in this paper using a two-step approach for G7 countries and the period 1970-2016. The first step generates time-varying conditional variances of inflation and output growth. Specifically, we use a bivariate asymmetric GARCH (BAGARCH) model to estimate conditional variances of inflation and output. In the second step, we apply the procedure by Qu and Peron (2007) for detecting multiple structural breaks in the system of equations involving inflation, output growth, inflation uncertainty and output growth uncertainty. Preliminary results indicate presence of at least one structural break in each G7 country as well as significant variations in relationships between these four variables across different sub periods.

50. Causal Relationship between Market Returns and Market Volatility in Major Crude Oil and Stock Markets of the World

Hrushikesh Mallick, Zeeshan Nezami

This research explores the causality relationship between spot returns and implied volatility of oil and stocks in world's major markets during pre and post Covid-19 period. To investigate the relationship, the study employs Granger causality and frequency Granger causality methods. The result discovers the existence of a uni-directional causality relation from implied volatility to market returns in both oil and stock market during pre-pandemic.

In contrast, it observes a bi-directional causality relationship for both the oil and stock markets during the post-Covid period. The long-run causality is observed for the American oil and stock markets, whereas both short and long-run causality relationships are observed in the European oil and stock markets in the pre-pandemic period. In contrast, the study verifies that both the short and long-run causality hold in the oil and stock markets of both European and American markets during the post-pandemic period. Finally, only stock return causes news-based volatility in both the short and long run during the post pandemic periods.

Status: Expected date of completion- August 2023

Research Plan

51. Debt sustainability, fiscal response and economic policy uncertainty

Gogol Mitra Thakur and Srikanta Kundu

Uncertainty is a central cause of fluctuations of various macroeconomic variables. Many studies reveal that uncertainty has a negative impact on macroeconomic indicators. Under the uncertain economic circumstances, firms are expected to halt investment demand and reduce hiring due to increase in hiring cost. On the other hand, households increase their propensity to save. Hence, increasing uncertainty may reduce the revenue of the government and may increase the cost of public borrowing. This may affect the government's ability to meet all its current and future payment obligations without exceptional financial assistance. In the present study, we examine how the aggregate uncertainty affects the debt sustainability of an economy and consequently affects its primary balance.

Taking quarterly data from 2006 to 2019 on the Indian economy we are analyzing the debt sustainability and the fiscal response function to macroeconomic uncertainty.

New Research Studies

52. Inflation in India: The role of imported and Domestic Factors.

M.Parameswaran and Pulapre Balakrishnan.

India has seen lower inflation by historical standards for the past 6 years. This has been attributed to the adoption of inflation targeting by the central bank, the Reserve Bank of India in 2016. In particular, it has been asserted that the lower inflation reflects the anchoring of expectations. We evaluate these claims. An econometric investigation indicates that there is no basis to the claim that inflation has been lowered due to the anchoring of expectations. On the other hand, we are able to account for the trajectory of inflation in India after 2016 in terms of an alternative explanation of inflation, namely the structuralist.

Status: Expected date of Completion- July 30, 2023

MIGRATION

Completed Research Projects

53. Evidence Generation on Child Migration: A State Level Study of Tamil Nadu and Kerala

Praveena Kodoth and Vinoj Abraham

Sponsor: UNICEF, Chennai

Child migrants at the lowest level of economic class are subject to severe deprivations but have failed to receive policy attention. They have fallen through the gap in policy on migrant rights, which focusses on adult migrants, and child rights, which does not consider the specific ways in which migrant children are excluded. Micro studies provide detailed evidence of exploitation, material deprivations and disenfranchisement of child migrants. Findings from these studies are, however, difficult to aggregate. We lack macro estimates of child migrants and an interlinked understanding of the types of child migration and the disenfranchisement of child migrants at the national or state levels in India. Analysis of macro data shows that migrants from rural to urban areas are relatively more disadvantaged in terms of a range of material conditions of life – access to housing, safe cooking fuel and mother’s education. This study seeks to generate evidence of the extent and character of child migrants and the nature and extent of their deprivations in order to make a strong case for a definitive policy to address the deprivations and disenfranchisement of child migrants. The study will be conducted in Tamil Nadu and Kerala, states that are at the forefront of growth in internal labour migration and pioneers in designing social protection measures for inter-state migrant workers.

Child migrants are a highly differentiated category. While not all child migrants suffer deprivation, they are at risk of falling through the gap between policy focus on child labor, on the one hand, and adult migrant workers on the other. Children have been visible in categories such as ‘victims of trafficking’, ‘street children’, ‘displaced children’ and as ‘refugees’, but these include only some of the migrant children who suffer disenfranchisement. The visibility of these categories emerges from the use of binary concepts such as

forced or voluntary migration, victims or agents, legal or illegal migration which derive from idealized notions of childhood and family that assume that children lack agency and that families will protect children. Binary concepts and the assumptions about childhood and family also legitimize the use of an anti-trafficking approach towards child migrant workers. The reality of child migration in the global south is messy and complex. Families in distress may be unable to protect children and / or they may seek to improve their circumstances by putting children to work. Children may also assert agency in seeking migrant employment. Further, the working and living conditions of child migrant workers and trafficked children are not vastly different. In this light, the study asks: What is the size of the child migrant population? Who are the child migrants that need policy attention? How do these children migrate? Where do they migrate to and what are the conditions in which they live and work? What public services and social protection do they have access to at home and in the destination and what do they lack?

Our analysis of Census 2011 shows that inter-district migration far exceeds inter-state migration but the latter has grown at a relatively higher rate. Child migration rates are lower than that of adult migration rates but growth rates of child migration are higher. The child migrant population share was higher in Kerala and Tamil Nadu compared to the All India level and in these states, there was a shift in the reasons for migration of children and adolescents from employment and marriage to education. This suggests that in this region at least, child migration may not be at odds with a secure childhood. However, more in depth analysis using primary data is needed to validate the above statements. Census categories such as ‘moved with household’ could include a

labour contractor and his workers sharing a common kitchen. Invisibility looms large due to legal strictures against child labour. The Census and other macro data bases such as the NSSO do not capture seasonal and circular migrants who are more likely than longer term migrants to be situations of distress and to lack social protection. Thus, the need to conduct a primary survey of the kind that would allow estimation of the child migrant population, their characteristics and the barriers child migrants and / or their families face in accessing basic public provisions related to nutritional and food security, health and education.

54. The prospects and impact of migration at the local level through a village census

Vinoj Abraham, Praveena Kodoth, Parameswaran M and Ritika Jain

Sponsor: Kerala in the World Economy Programme/ CDS

Overseas labour migration of Keralites and the remittances that have flowed into Kerala as a consequence are now recognised as having had a strong impact on the state's economy and society. The migration of Keralites witnessed an upward swing with the Gulf boom in the 1970s, lined to the several fold increase in oil prices. It is estimated that in 2014 around 24 lakhs Keralites were working abroad, which is around 7 per cent of the state's population and more than two times the workers in the organised sector in Kerala. It is also estimated that remittances the state receives comes to around 20 percent of its Net State Domestic Product (NSDP). The flow of money, goods and ideas as well as the building of social capital are known to have had a transformative effect on the local economy and society especially in areas of large scale migration and to be differentiated in

terms of communities (religion and caste), gender and class (education and skill levels of migrants)(Osella and Osella, Kurien, Sivanandan, PRG, Sreerup, 2017, Luke, 2018). At present, Kerala is also witnessing significant changes in migration. It is no longer the largest sending state of migrants and migration from Kerala is no longer growing even as migrants are returning to the state in fairly large numbers. Another characteristic feature of Kerala's economy today is large scale in-migration of labour into the construction and agricultural sectors as well as into semi skilled (technically trained) occupations from the northern and eastern states.

With more than half a century of migration to the Middle East and more than quarter a century of in-migration of labour from the northern states, this is a good time to do a comprehensive investigation of the impact of migration in terms of its effects at the individual, household and societal levels and also to take stock of the economic and social processes it has set off at the local level. As we are interested in the micro level impact of migration, we propose to take up a comprehensive study of a village in Kerala. We propose to conduct a demographic and economic census in a village with a reasonable diversity in terms of migrant, non-migrant households and productive economic entities including enterprises in the three economic sectors. The census approach would help us to elicit detailed information on the issues that we discussed above. We intend to take Kadakkavoor in Thiruvananthapuram district for this proposed study. Kadakkavoor is a village with 5144 households, and a population of 22632 persons as per Census 2011.

Status : Report

*Ongoing Research Projects***55. When Labour and Capital Go to Work: International Mobility of Labour and Capital and Global Accumulation**

K N Harilal and M Parameswaran

Sponsor: NORKA, Government of Kerala

For long world trade has been growing faster than world production. It meant more trade across countries, signifying deepening of the division of labour among nations. An important reason for the increase in trade has been the advancement of relevant technologies. An equally important reason has been the sympathetic changes in the rules governing movement of commodities within and across national borders. Building nation states required making of common national markets. Modern nation states were built with the help of long drawn out missions for integrating the national market by removing regional or intra-national barriers to movement of commodities. Initially, international trade grew in spite of the existence of stringent border measures. Soon there arose strong demand for liberalization of border measures. The Bretton woods organisations were designed to facilitate the deepening of the international division of labour. The General Agreement on Tariffs and Trade (GATT) until 1994 and the World Trade Organization (WTO), which subsumed the GATT within its framework since then, have been actively pursuing the goal of barrier-free international trade. In addition, there was a mushrooming growth of preferential trading agreements, especially in response to the stalemate in the multilateral system, which promoted freer trade albeit with an inbuilt regional bias.

Needless to say that there was active resistance to the integration of national as well as international markets. Notwithstanding sporadic resistance

the cause of freer trade and unfettered competition triumphed more often than not. The bigger and the mighty with command over more capital and market had the last laugh in most battles for market access. As a result, trade in merchandise, and services to a limited extent, have become virtually free. Before embarking on the question of movement of capital and labour, it should be noted that free trade compensates, according to the mainstream theories of trade, to a significant extent, for the immobility of factors. According to the factor proportions theory of trade variability in factor endowments would be reflected in relative prices of factors of production and commodities, which would in turn cause and sustain trade. The sustained variability in factor prices has also resulted in the cross-border movement of the factors, capital as well as labour. On account of incessant accumulation capital has always been on the lookout not only for new and expanding market for commodities but also for investment opportunities. Export of capital occurred primarily in three ways, External Lending (EL), Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII). Just as in the case of commodities, there was concerted effort to overhaul the institutional framework at multilateral, regional, and national levels to facilitate movement of capital across borders. On account of globalization freedom of mobility of capital has assumed predominance over almost every other consideration of public policy. Everything else gets less priority and privilege vis-à-vis the interest of capital. It is against this backdrop that one should approach the question of mobility of people in general and labour in particular.

The freedom of movement of labour receives relatively much less importance in the current arrangements. The approach is significantly different compared to what

we see in the case of goods, services and capital. Admittedly, labour is much more mobile now than in the past. But, labour mobility gets priority, not necessarily in the interest of labour but of capital. Labour mobility is championed for cheapening labour power. Capital insists on the freedom to move to the locales of cheap labour and raw materials. It champions labour mobility to source labour from regions and nations with lower wages.

The differential and discriminatory treatment of international mobility of labour vis-à-vis mobility of capital and movement commodities requires to be problematized. The paper is an attempt to make such a critical comparison. The paper underlines the need to have a rearrangement of the existing regimes pertaining to migrant labour not only from the perspective of migrant labour but labour in general. It advocates thorough overhauling of the international regimes so that the rights of workers are adequately protected.

Status: Expected date of completion: September 2023

56. Sample survey on migration and the social and economic impacts of COVID in Kadakavoor village (second phase)

M.Parameswaran, Ritika Jain, Praveena Kodoth, and Vinoj Abraham.

Sponsor: Research Unit on Migration

Status: Expected Date of Completion- December, 2023.

AGRICULTURE AND PLANTATION CROPS

Completed Research Projects

57. Coffee sector in India: A study of few selected issues

Chidambaran G. Iyer

Sponsor: NRPPD, CDS

India is a major producer of coffee. It is cultivated primarily in the southern states of Karnataka, Kerala, and Tamil Nadu. Recently even Andhra Pradesh has also been contributing to the growing numbers. A large share of the production of coffee comes from small holdings. Estimates from the Coffee Board of India show that in 2020-21 more than a million individuals were directly involved in growing of coffee. In the past three decades, over 70 per cent of our coffee production has been exported, and India's share in world coffee exports has consistently been around four per cent during this period. Given the consistency of our coffee exports and the dependence of a significant number of household livelihoods on coffee exports, in this paper, we check India's market power in the coffee export market for the period 2012-13 till 2020-21, using the pricing-to-market (PTM) model, which analyses the impact of exchange rate fluctuations on export prices. For exports price data, export quantity and value to various countries, reported for the period 2012-13 till 2020-21, from July 2021 database of Coffee Board, Ministry of Commerce and Industry, Government of India have been used for the study. Prices have been converted to real values using WPI for Food. IMF's International Financial Statistics was the source for the nominal exchange rates. The importing country's CPI was used to

convert these nominal exchange rates to real exchange rates. In all, data on exports to 55 countries was used for the analysis. The policy implications of this question are obvious, higher pricing power implies sustainable livelihoods which augurs well for the Indian economy. However, given the value chain in coffee, the results of our analysis confirm our expectations, Indian coffee exports do not have pricing power with its biggest buyers, while they enjoy pricing power with the smaller buyers.

We also compare the characteristics of coffee processing units that directly export with those from that do not export. This question has policy implications as any difference in characteristics will support fine tuning of policies for the coffee processing units. We use the Annual Survey of Industries 2017-18 data for coffee processing units (NIC code 10792) in the country. We find that directly exporting units have worked for more days than non-exporting ones, some non-exporting units have remained shut for more than six months. Directly exporting units have employed more workers probably indicating specialization of labour across activities. The average number of supervisory staff employed in directly exporting units is almost double that of non-exporting units. As a share of output, directly exporting units also enjoy lower raw material cost, this could be because of the higher value they obtain by directly exporting their output. On an average, directly exporting units seem to have invested slightly more in plant and machinery than non-exporting units. Units that directly export maintain an inventory, while among the non-exporting there are units that do not carry inventory and some carry too much inventory. The professionalism brought in by the activity of directly exporting has helped the directly exporting units attain an average value added that is higher than that of non-exporting units. This analysis makes

it clear that there is scope for higher value addition if licensed coffee works engage in direct exports.

Status : To be published as chapter in the NRPPD Compendium on Plantation Crops.

58. Risk and Vulnerability of Cotton Farmers in Vidarbha

Thiagu Ranganathan and Sarthak Gaurav

Sponsor: ICSSR

Vidarbha, a major cotton growing region in central India, has been the epicentre of a protracted agrarian crisis. Chronic indebtedness and farmers' suicides continue unabated despite decades of state intervention. Going beyond the contemporary discourse that finds fault in neoliberal policies and integration with global markets, this fascinating book tells the story of how nineteenth century 'accidents', particularly in the form of colonial policies and the American Civil War, ushered in institutional transformations that shaped the region's cotton economy. By drawing insights from the authors' longitudinal study in villages of the region spanning twelve years, *Accidental Gamblers* presents the 'gambles' that farmers are part of in addition to the detailed historical account of the political economy and development of cotton economy of the region. The novelty of combining a long view of history and evidence based on primary field research results in a book that underscores the importance of investigating roots of agrarian crisis and paying attention to adjustments of farm households, at a crucial juncture in India's economic transformation.

Status: Published as a book, "Accidental Gamblers: Risk and Vulnerability in Vidarbha Cotton".

*Ongoing Research Projects***59. Performance of Rubber Producer Societies in Rubber**

Vinoj Abraham

Sponsor: NRPPD

Rubber producer societies, the grass roots level producer organisation that is focussed on collective production and marketing of rubber had been a key player in the growth and spread of rubber production in Kerala. However, the RPSs numbers are dwindling and there are hardly any new RPSs being developed. In the light of this declining level of activity of the RPS, rubber as a commodity has implications as a large share of the rubber is produced and marketed through the RPSs. Moreover, RPS is the first line of contact of the small rubber cultivator for inputs, marketing and information. The disappearance of RPS would have severe implications on the small grower who would be left to the mercies of the monopsonistic market conditions. Given this context this project analyses the performance of the RPSs in Kerala. The study is being conducted through a primary survey across Kerala. The survey covers two primary stakeholders, the growers and the RPS functionaries. The focus of the study would be identify what are the factors that has led to the slowdown of the RPS activities. Further, it would also suggest possibility of revival of the RPSs.

Status: Expected date of completion: The research was to completed by March 2020, but has to be extended due to the COVID pandemic.

60. Performance of Farmer Producer Organisations in Coffee

Vinoj Abraham and Mithesh Madhavan

Sponsor: NRPPD

Small growers (with land holding below 10 hectares) account for over 95 per cent of operational holdings (Coffee Board of India, 2016-17) and 70 per cent of the production in India. The production process requires specific sets of skills and given the limited scope for mechanisation, it is highly labour intensive. 45% of the total cost of growing coffee is labour, and now due to the higher wages, the production costs have inevitably increased. Lengthy supply chains with superfluous intermediaries that have resulted in lower prices and lack of transparency between buyers and growers are major factors leading to lower prices received by producers. The process of globalization has not only brought far-reaching impacts on the structure and sourcing of production but also on the nature of market opportunities and competitive pressures for producers around the world. Cooperative system was considered as an alternative to direct government intervention but again failed due to political capture of the system. The co-operative movement has been a failure, while, new forms like Self-help groups have been emerging. FPOs, especially farmer producer companies offered an alternative to the cooperative system. Self -Help Groups (SHGs) have emerged as recent attempt to review the failure of associations by Coffee Board. By 1999-2000, Coffee Board had created 42 regular Self-Help Groups by 1999-2000. Through these groups, the activities like raising of community nursery for production of planting material, procuring and use of farm equipment on a community basis, adoption of effective measures to control pests and diseases, use of new technologies and promoting specialty

coffee and creation of infrastructure like drying yards or store houses were encouraged. A wide variety of FPOs exist in the coffee sector such as informal organisations, associations, co-operatives, hybrid structures, and private companies. A cursory look at some coffee FPOs shows that the legal and administrative structures are varied and specific to each place/FPO. Their functionalities are also variable. While some of them concentrate on procuring and marketing, some give subsidised inputs, low interest credit and some act as forums to raise member concerns and increase their welfare. Given the heterogeneity in FPOs in coffee sector this study would try to understand the following aspects.

Type of FPOs, their legal structure and administrative structure – profit or non-profit organisations, membership criteria, stakeholders etc

Ways to achieve international standards - organic farming, sustainable farming, fair trade practices etc

What role do they play in facilitating coffee cultivation – subsidising inputs, marketing, credit, curing and processing coffee, etc

Member characteristics and comparison between member and non-member coffee growers

Status: Expected date of completion: The research was to be completed by March 2020, but has to be extended due to the COVID pandemic

61. Feasibility of e-auction in rubber

Vinoj Abraham

Sponsor: NRPPD

The government of India through its

various boards and agencies have been actively pursuing to introduce e-auction in agricultural commodities. The primary goal of introducing e-auction was to enhance better price discovery for the agricultural commodities. As per available information for most agricultural commodities the price realisation of the farmer at the farm gate was only 65 percent of the Free On Board (FOB)⁷ price of the consumer. The remaining 35 % were taken by intermediaries, such as dealers, stockists and aggregators whose profit is the leverage in the market. Between the producer and the final consumer of a commodity there may be different scales of intermediation depending on the size, structure and location of the final consumption market. Intermediaries are known to enter into market relations with the farmers who would be forced to hedge their product at lower prices against loans and advances from the intermediaries. Also intermediaries try to control prices of the non-perishable agricultural goods through hoarding. Also, because of the poor bargaining power of the sellers and lack of information of the premium on quality, often sellers are duped into selling cheap to the intermediaries. Given these issues relating to intermediaries the government had been trying to organise agricultural marketing through regulated markets to reduce the stronghold of intermediaries in the market. Regulated markets were introduced where commissions were standardised, grading was standardised and weights and measures were standardised. Traders, dealers and commission agents were to have licence issued by the government. However the regulated markets remained by and large unsuccessful due to rent seeking and corruption. Institutional reorganisation to

⁷ Price paid by customer net of all transportation, insurance and other charges. FOB price indicates the price of the commodity that includes only the intermediary charges.

overcome the problems associated with intermediation was failing.

It was here that the e-auction market came in place. In many commodities outcry based auction in the local mandis was common in India. Auction based trading has the advantage that the price is set in a competitive environment. Therefore the seller may get better prices than by depending on one buyer. However local auction is limited to the local markets, while e-auction would allow the buyers and sellers to meet online and trade the commodity. This would imply that the number of buyers for any product would be higher than the local auction market. This would also imply that instead of having a single buyer in the local market at whose mercy the farmer survived, the bargaining power now shifted to the seller, who is now a single seller from whom a large number of buyers are dependent. In such cases, the sellers may end up getting better price than the earlier case. In the plantation sector online trading is practiced in cardamom and e-auctioning is conducted for tea under their respective commodity boards. In view of the National Rubber Policy of India 2019, this study explores the viability of e-auctioning in Natural Rubber (NR).

Status: Expected date of completion: The research was to be completed by March 2020, but has to be extended due to the COVID pandemic

POLITICS AND DEVELOPMENT

Completed Studies

62. Bargaining with Goliath: Knowledge Society and Vulnerable Communities, Lessons from Kerala.

Abhilash T

This paper tries to address a few

hypothetical questions such as how the marginalized sections like adivasis in the state, who are unable to acquire their special socio-economic rights from the state, will bargain with the capital at a time when state itself is conceding to the capital? When the state power is being privatized how far these communities will be able to bargain with the new power structures? In this scenario, how far Kerala's vision on the knowledge economy will be inclusive for Adivasis? The idea of a knowledge society is supposed to reduce the information asymmetry and create capability by empowering these communities to participate in the local economy so they can produce knowledge which is essential for holding sufficient power in the bargain or at least can make informed decisions when met with choices offered by state- capital nexus. These questions will be addressed by analyzing the communities participation in education and 'skill development' and the status of their rights over the resources. Beginning with a brief history of Adivasi's exclusion from the process of production in the state this paper further discusses how the state is looking at these issues at a time when the demand for a 'right- based approach' gets much more prominence in the social policy discussions. It is pertinent to understand the scenario of how the economic relations in the state viz-a-viz these communities will unfold after the arrival of global capital in the form of mega projects and its impact on the already excluded sections in the society.

Status : Social Action (Planning to Publish)

63. Carceral Feminism and the Punitive State in Kerala State, India

J.Devika

This essay is about the mutation of feminism in Kerala, India and its engagement with the state in the new millennium. Kerala has

interested observers of development about how it supposedly relied on women's agency for its social development successes (Jeffrey 2003). These claims have been strongly qualified by feminist scholars and others by now (for example, see Kodoth and Eapen 2005, Devika 2009, Erwer 2003). However, the state in Kerala and the mainstream communist parties which have been in power here emphasize continuing gains through state feminism that recognizes 'Women' as the central subject of development and local governance since the 1990s (Isaac and Franke 2000). Kerala is an interesting instance to observe the inter-workings of state feminism and, civil-social feminisms in the context of an unmistakable historical shift. This shift is of the state's orientation from a broadly-welfarist orientation to a more predatory-capital-friendly, punitive and securitized thrust, in the shadow of the culturally-hegemonic majoritarian Hindu-fascist Union government of India (Kinnvall 2019). I argue that carceral feminism here has been of advantage to the increasingly-punitive state; the CPM finds it useful to its own version of 'populist authoritarianism'. And unlike their Indian urban-metropolitan counterparts, Malayali feminists have neither been able to engage ethically with carceral feminism, nor call out the state's aggressive thrusts against marginalized men who transgress boundaries of privilege in love and marriage. This essay consists of three sections followed by concluding thoughts. The first section is a discussion of the relevance of the concept of 'carceral feminism' in the context of (urban-metropolitan) Indian feminism and mainstream Malayali feminism. This is followed by some observations on the power-effects of the state's specific deployment of carceral feminism in contemporary Kerala. The essay ends with some thoughts on retrieving feminist politics and dismantling hierarchies in the interest of anti-patriarchal struggles.

Despite deepening state punitivism, growing state-predatory capital nexus, women's disappointingly-low access to power, and the apparent decline of governance feminism in present-day Kerala, the state here continues to project itself quite successfully as a champion of women's freedoms. The state's specific use of carceral feminism combines public declarations promising strong punitive responses to sexual violations of all sorts with strictly limited, strategic use of the carceral legal instruments against sexual violence. Anyway such declarations do not necessarily imply active translation of these promises of protection through political struggle. Indeed, there is evidence of the deliberate abandonment of liberal feminist goals in the face of conservative opposition. Also evident, seemingly, in the retreat of the CPM from their strikingly progressive to the Indian Supreme Court's judgment in 2018-19 which removed the taboo against women worshippers of menstruating ages from entering the forest shrine of Sabarimala in Kerala; Hindutva legal action against a woman pilgrim for alleged obscenity went unopposed by the government, and she was jailed. Nor did the government adequately protect the women who entered the temple braving aggressive conservative opposition, and through this act, allowed the CPM to gain a symbolic victory over Hindutva. In each of these instances, the ruling CPM could have asserted itself as a formidable, progressive social and political force, but it did not; the police was allowed to take a pro-Hindutva stance.

But besides buckling under conservative pressure, the CPM has also failed to support subversive liberal feminist public assertions by groups and individuals against hostile police. This was evident, for example, during the string of protests by Malayali youth against moral policing (vigilante attacks against perceived breach

of conservative sexual morality) in public spaces which came to be called the Kiss of Love protests (2014) (Devika2021). Even though these protests were often organized and widely supported by liberal feminists and others close to the CPM, the party leadership did not seize the opportunity to challenge police violence and turn it into a broader struggle to expand the very scope of civil liberties. Nor have they supported subversive cultural actions by radical liberal activists.

Given this situation, how to make sense of the state's successful retention of its image as the defender of women's rights? I argue that the deployment of carceral feminist promises and actions plays a key role in this success.

Status: To appear in Mary Caputi and Patricia Moynagh eds, *Research Handbook on Feminist Political Thought*, forthcoming from Edward Elgar Publishing in 2024.

64. Nepotism, friction and labour markets

Rajit Biswas and Debojyoti Mazumder

A search and matching framework is employed to model political nepotism in the job market. Labour market friction generates incentives for political leaders to promote nepotism in the job market under the threat of political regime change. The nature of the equilibrium depends on the labour market conditions. In a frictional labour market, even when a relatively higher number of jobs are created, at least one of the leaders would choose nepotism. Both the leaders optimally choose nepotism in an economy where labour market friction is high and/or productivity is low. It is also shown, the social surplus generated from nepotism can be higher compared to a no-nepotism situation. Nepotism continues to be the optimal strategy for at least one of the leaders, even if workers are heterogeneous in terms of their productivity. Moreover, the

low ability workers face higher probability of getting a job and receive a higher wage in nepotism situation compared to no-nepotism situation, if they are ideologically closer to the incumbent.

Status : Submitted to journal

New Initiatives

65. Waiting for Elusive Justice: Adivasi Land Question in Kerala

Abhilash T

Tribals –especially the most vulnerable groups–in Kerala continue to be subjects of marginalization and violence. The lynching of Madhu, a Kurumba tribal youth from Attappadi region in Palakkad got national attention in 2018. The much-touted FRA has not benefited the tribals. Large numbers of claim rejections–especially community rights–undermining the traditional rights over land and supremacy of forest bureaucracy over the Act implementation is debilitating the spirit of this landmark legislation. Meanwhile, the state government's attempts to nullify the Act to issue revenue rights of records in a few districts also complicate the situation. Different occupational categories among tribals perceive FRA differently. For instance, settled-agriculturist tribal groups in central Kerala demand revenue rights of records like the non-tribals, whereas the forest-dwelling marginalized sections in northern Kerala demand the proper implementation of FRA. For them, the Act is the only legislation that could address their developmental dilemmas. The divergence of opinions regarding land right among different occupational categories needs to be addressed in this regard. What is the basis of the settled agriculturalists' demand for revenue rights records over FRA ? What are the emerging issues, especially on land rights, unfolding in the state that can have a bearing on the tribal livelihood

when the state is actively popularising and implementing the idea of 'knowledge society and economy', in which the question of inclusion of the most marginalised groups like adivasis are still not reflected upon. It is essential to discuss these aspects in academia. We have a shortage in the literature on the newly emerged tribal land and developmental question, especially after implementing the FRA. Adivasis' collective demand for the restoration of their traditional rights in Sabarimala temple and unfolding human-animal conflict in the tribal region of Kerala also need a fresh analysis. At last, how the present state comprehends these new challenges in the tribal world needs to be studied.

Research Plan

66. Intergenerational Mobility and Collective Articulation of Rights: A Case study of Mala Araya Tribal Community in Kerala

Abhilash T

Bhagvan Birsa Munda's life, agitation and ideals influenced many tribal communities in the country. Few of them have achieved a certain amount of socio-economic mobility as well. The Mala Araya community in Kerala is one among them. It is essential to study the mobility of such unsung communities when remembering Bhagvan Birsa Munda. Tribal communities in the country are highly heterogeneous in their cultural, social and economic outlook. This divergence will have a major bearing in their development and inclusion. Many studies consider tribals as a homogenous category that obscure the nuances of their socio-economic milieu. Studies on tribal group often neglect the occupational categories of these communities. It can be broadly classified into three; settled-agriculturists, hunter-gatherers and wage labourers. In Kerala's tribal landscape, the settled-agriculturists tribal groups have

been somehow able to garner the benefit of affirmative action, state-sponsored developmental initiatives and the benefits of the market economy. There are many reasons behind their mobility. Firstly, unlike others they were less subjected to land dispossession and alienation. They somehow benefitted first wave educational development in the state. However, the other two groups have been still at the receiving end of the state-sponsored developmental initiatives. Therefore, this study will explore the intergenerational mobility of settled-agriculturist tribal groups Mala Araya. This study will explore the factors that led Mala Araya's intergenerational upward mobility, if any, and how far the community is able to sustain the mobility at present. It will also explore the struggles of individuals like Birsa Munda from the community in their mobilization during the post-independence period. By analyzing their developmental experiences this study aims to gather inferences, if any, for the policy formulations for the other socially-backward groups in the state.

OTHER STUDIES

Completed Studies

67. Interference of Abortion Law on the Relationship between Economic Development and Fertility Rate of Women

Chandril Bhattacharyya and Dona Ghosh

The last few decades have seen unprecedented economic growth and fertility decline. However, the relationship between economic development and fertility rate varies across countries due to country specific characteristics. There are two schools of thought in the existing literature: the first holds that women's fertility declines with

economic development, which happens in tandem with industrialization, while the second holds that fertility rises with economic growth because it encourages early marriage, coupled with an increase in financial security. However, there needs to be more information in the literature regarding how various birth control regulatory systems affect the connection between fertility and economic development. Therefore, the present study attempts to analyze the relationship between birthrate and GDP per capita growth in 182 nations (using panel data from 1990 to 2012). The study has three major findings. First, it implies that the U-shaped association between economic progress and fertility rate is not universal. Second, the law affects women's fertility. More abortion restrictions boost a woman's fertility. Finally, cultural influences like previous periods' fertility rates affect the current period's fertility, indicating an intertemporal link. The study contributes to the in-depth understanding of the determinants of fertility rate. It identified how the abortion law influences the relationship between economic development and fertility rate. The findings can help design fertility control measures based on a country's economic development status.

Status : Indian Journal of Finance and Banking

68. The History of Regimes of Childhood in Kerala: A Preliminary Account

J. Devika

In this study, I have recounted four different 'regimes of childhood' (and one probably in the making) that have been proposed, with different degrees of success in actualisation, from the mid-19th century to contemporary Malayali society. They do not follow one another in a linear

fashion. Rather, each assemblage is closely associated with a certain form of the state and changes with shifts in state-society relations.

Each of these relied upon a certain conception of the child and childhood with different consequences for children; each of these is gendered, again, with different inflections and consequences. Of these, two belong largely to the twentieth century, and the third and the fourth to contemporary Kerala, deployed on children of different social classes. They coincide with very different moments of social transformation, and refer to different conceptions of the state. The first of these, proposed in/for modernising Travancore of the late 19th century but readily adapted to post-independence India, was 'responsible parenting' which conceived of the child as a nucleus of potential in which parents were to invest in through maintaining a steady marriage and a stable, properly gendered family and household; it focused on shaping the child's essential internality without much physical punishment and turning it into an industrious (and properly gendered) subject of value to the nation and relied upon a biological foundationalist understanding of gender. The second regime proposed, that of Romantic childhood became prominent in the immediate-post-independence decades of the 20th century, often as an implicit critique of the rationalising 'responsible parenting' regime that was dominant in major social and community reformisms of the time. It signalled however, not so much to a really existing political formation, but an imagined ideal society of the future: it is no coincidence that though 'Ammuvinte Aattinkutty' is set in an unequal scenario characterised by tenant-landlord relations, the poems in it also gestured towards a society animated by the anti-caste and compassionate values of Sreenarayana Guru. It relies strongly on the revaluation

of the feminine, retaining the modern identification of women with the 'gentle power' of love, care, patience, and other such qualities (Devika 2007), but elevating it, raising the feminine as the fount of self-less giving and the Sreenarayaneeya value of *anukampa*, or deep compassion, that emboldens its possessor to challenge authority and both demand and elicit an ethical response from them (as Ammu does, from the landlord). It also revalues the traditional form of adult-child love, *vatsalyam*, as the mode of parental interaction with children and emphasizes non-violence.

The third, the aspirational regime of childhood, is dominant in contemporary Kerala especially among the Malayali middle-classes. There is a visible inconsistency in it between the manner in which children are treated and the ways in which the child is projected. While the child is treated as raw material for 'child-crafting' for parents - with no essential properties, unlike in 'responsible parenting' - to serve the upward mobility of families in a socially conservative, if migration-dependent, society, it is also projected as already-agential, ambitious, and oriented towards an upwardly-mobile life, which a self-sacrificing parent must encourage. Though it is a gendered regime, gender is a 'thin' presence in it, so for women, it can be set apart temporarily for advancement in career. The fourth regime, that of child governance, which overlaps with the third, targets lower middle class and poor children. It deploys the global discourse of child rights; its political horizon is the neoliberal state, playing the role of the facilitator, providing support to children to maximise their agential capacities through trainings and space-making (like the adolescent groups and *balasabhas* mentioned in Ortiz et al 2013 and the Kerala State Child Rights Policy, 2016). This is however often inadequate to

level the inequalities, given that children of disadvantaged families bear the disproportionate burden of state-funded pedagogy oriented towards citizenship and not the market, which does not often build skills (Mathew 2016). However, unlike 'responsible parenting' in which there was considerable caution about maintaining existing family life -- initiatives that let other national or international authorities assume (presumably colonial) paternalistic authority over local institutions were not always encouraged (Sriprakash et al 2019: 354) - in the neoliberal regime shaped by the global discourse of child rights, parents who are perceived to be burdening the state with poor childcare and thereby the destruction of precious future human resources can be removed, but the structural conditions as well as the immediate needs of these families are rarely addressed. This has been especially the case of the victims of sexual violence, very frequently children of highly-disadvantaged or otherwise troubled families. Once children are removed from their families, however, the reforms respond to them in a different way. In Kerala, the lack of adequate resources for child governance prevents this system from being developed to the full - but to the disadvantage of both the parents and children, with the vulnerability of neither lessened. Worse, the relentless sexualisation and abjection of female children of disadvantaged families seems to be unabated, as is evident from the ongoing struggle for justice for the Walayar children. A fifth, emergent regime, that of the 'securitised child', takes aims at the teenagers and youth of Muslim minority, identifying them as innocent and vulnerable, in need of 'saving', thereby denying them political agency. There is, in it, a throwback to colonial anxieties. The deepening neoliberal orientation in Kerala's child welfare policy perhaps calls for separate investigation: on the one hand, there is evidence that child-

protection services offered by the state through NGOs are crumbling and even criminalized (Smitha 2021), and on the other, the State increasingly seeks to create a 'child-friendly' atmosphere mainly by addressing such issues as the rising drug consumption by teenagers are essentially the problems of individual children. Secondly, the solution seems to lie in more and more protectionism, as evident in the ongoing campaign against drug use by school students.

Status: Published as CDS Working Paper 531. A revised version may appear in a volume edited by Mary E John and Janaki Nair.

69. Monetary Transmission Mechanism in Asymmetric Framework: Evidence from India

Srikanta Kundu and Irfan Ahmed Shah

In this Paper, we analyze the effect of monetary policy on output and inflation and transmission channels in Indian context. We further analyse how these transmission channels affect the economy using a structural vector autoregressive method. To analyze the asymmetric effects of monetary policy on output and inflation, we use Jord`a (2005) local projections method. This method is quite novel in its approach and flexible in its application. Using quarterly data from 1996 – 97Q1 to 2019 – 20Q4, we analyse the asymmetric effects due to the sign of the shock, size of the shock and the state of economy. From our analysis we found monetary policy affects both output growth immediately and inflation with a lag. Further, we found asset price and interest rate channels to be more effective compared to exchange rate and lending rate channels. While analyzing the asymmetric effects, we found a significant asymmetry in the effects of monetary shocks mainly due to the sign of the shock

and the state of the economy. Moreover, the effects of monetary shocks on real economy are stronger during expansion compared to recession. During recession it is inflation that is mostly affected by the monetary policy. These asymmetric effects of monetary policy are mainly captured through nonlinear models. We conclude by arguing that linear models that ignore asymmetric effects of monetary policy not only undermine the real effects but may also lead to inaccurate and misleading conclusions.

Status: Revise and Resubmit for a journal

70. Risk and Return Spillover: Does liquidity of Stock Market Play a Role? Evidence from the US, the UK and India

Srikanta Kundu and Manikantha Nataraj and Pratim Das

This study is an attempt to see the return and volatility spillover of the stock market of the US, the UK and India in two different market condition defined by liquidity condition of the markets. Relative bid-ask spread has been considered as the measure of market (ill) liquidity and has been estimated by using high, low and close prices. Using daily data of post financial crisis period and employing a STVAR-BTGARCH-M model we have seen the return and volatility spillover is asymmetric. In particular, the results suggests that under the illiquid market condition the cross-market spill-over effect in returns is higher than the liquid market conditions for all the three pairs of markets. Secondly, the own market risk-return relationship is found to be positive but the cross-market risk-return relationship is negative under the illiquid regime. Thirdly, under the liquid regime the risk-return relationship can be either positive or negative for both own and cross markets. These results broadly hold irrespective of whether the pair of market is being both

developed or one being developed and the other being developing. These results suggest that the potential investors should consider the liquidity conditions of the market while strategizing their portfolio diversification globally.

Status: Revised and Resubmit from Journal

71. Does Economic Status Matter in the relationship among Democracy, Macroeconomics and Happiness? A Panel Data Analysis

Srikanta Kundu and Ruma Kundu and Kul Bahadur Chettri

Employing various panel data analysis including threshold panel model, this paper has examined how economic status determines the relationship among democracy, macroeconomic variables and happiness. Considering panel data of 83 countries over the time period from 2010 to 2016, this study tries to establish that, factors determining subjective well-being affects differently for low and high income countries. This study has found that though per capita GDP has no direct impact on happiness, it establishes the role of other variables to determine happiness. It has been found that democratic quality has a positive and significant impact on happiness only for high income countries. Moreover, inequality has a negative and significant effect on happiness only for low income countries. It is also evident that unemployment has a strict negative impact across all type of countries but the magnitude is higher in low income countries.

Status: Under review in a journal

72. What Determines Child Immunisation? A Study of Socio-Economic Factors in East Sikkim

Srikanta Kundu and Ruma Kundu, Indraneel Mandal

It is necessary to resort to vaccination as a failsafe for ensuring healthy life of the child. However the success of the immunisation drive is conditioned by prevailing conditions. Some of these also determine whether family members opt for full, partial or no immunisation. This paper attempts to identify and estimate the impacts of various socio-economic factors on childhood immunisation coverage in the East district of Sikkim. The study is based on primary data consisting of 204 respondents collected through household survey. The ordered probit and Heckman probit models have been utilised to estimate the significant change in childhood immunisation coverage. The study found that the birth order of child (BOC), mother's age, the standard of living, caste and religion have a significant impact on childhood immunisation coverage. With regard to the extent of immunisation, the important elements are mother's education, mother's age, gender of the household head and distance from hospital. The government should ensure a well distributed network of health centres so that the problem of last mile connectivity is overcome. Health cards should be available to one and all so that everybody can benefit. The role of the mother needs to be highlighted as well.

Status: Under review in a journal

73. State Heterogeneity, Redistributive Policy and Pro-Poor Growth: Evidence from India with a special reference to Education

Srikanta Kundu and Amartya Paul

Does redistributive policy drive economic growth towards pro-poorness? We investigate this by using a set of axiomatic pro-poor growth indices and deprivation measures that are computed using nationally representative sample survey data for India from 1983 to 2011-12. Estimation of linear panel shows that redistributive policies have a positive significant impact on pro-poor growth, and a negative impact on poverty. Results are consistent irrespective of the initial conditions of the state, across income groups and for an alternative measure. An endogenously determined threshold level of education, estimated from a non-linear threshold panel model reveals policy impacts are asymmetric for states that have attained at least such threshold levels.

Status: To be submitted to Journal

74. External Shocks and Indian Economy

Srikanta Kundu and Irfan Ahmed Shah

The paper analyzes the impact of external shocks on the economy in general and monetary policy in particular, in the Indian context. Using standard VAR model from 1996 – 97Q1 to 2019 – 20Q4, we found that oil prices significantly affect output growth, inflation and the exchange rate with no significant and direct impact on the financial market. Though, global uncertainty shock depresses output, increases inflation and depreciates exchange rate, it also affects financial market in India. Capital inflows appreciate exchange rate, decrease inflation, increase asset price returns and decrease long-run interest rate without having any significant effect on output growth. The effect of remittances does not seem to be significant. We further found that there is an asymmetry in the effects of external shocks with increase in external shocks having profound effect compared to the decrease in external shocks. The monetary

authority in India in general does not seem to respond to the external shocks at least in the short-run.

Status: To be submitted to Journal

75. Macroeconomic growth and role of Economic policy Uncertainty: the case of India

Srikanta Kundu and Sandeep Pandey

In the Indian macroeconomic debate there has been much focus on the role of monetary and fiscal policy for a very long time. In the recent years great deal of discussion has been on the role of the Inflation targeting policy adopted by RBI in October 2016. The growth rate has been declining from the past 7-8 years; it has been argued that conservative monetary policy of the Reserve Bank of India (RBI) has hurt the growth prospects of the Indian economy. After experiencing one of the fastest growths for the period 2007-2011, India has then seen a decline in growth. The gross investment in the country has fallen and the future prospects have looked grim. During the period of 2011-12, the period also known as the period of policy paralysis, the growth of GFCF has declined (Economic survey 2018). The reason for a fall in growth can be attributed to high rate of interest. But according to Mohanty (2013), real lending rates have actually declined by about 300 basis points during 2010/11 -2012/13 as compared to 2003/04 to 2007/08. The period before 2012 has seen a major increase in the investment growth in India. A decline of growth post this period can be attributed to poor governance, rising policy uncertainty and supply bottlenecks (Anand and Tulin 2014). The role of Uncertainty, specifically economic and policy uncertainty has been ignored in the popular literature on Indian macro economy. There are few studies in relation to India, but given the significance of the role Uncertainty can play there

clearly exists a huge gap.

Looking at the literature of uncertainty and its evolution, we can see two different time period. Before 2009, it was Bernanke (1983) who gave a theoretical understating of the behavior of the firms in situation of heightened uncertainty. Earlier work that discussed about the investment decision of the firm under the condition of increased uncertainty includes the theoretical contribution by Bernanke (1983) and Dixit and Pindyck (1994), Brennan and Schwartz(1985), McDonald and Siegel (1986) . According to Guiso and Guiso (1999), uncertainty can lead to a fall in capital accumulation by the firms.

In the present time Bloom (2009) stands as a watershed which motivated several studies in the area of uncertainty. The prolonged crisis of the 2008 financial meltdown was the trigger that started the debate about the role that uncertainty play in prolonging these crisis. Bloom (2009), in order to investigate the impact of the second movement shocks, provides a structural framework. Using simulation models, he concluded that during the period of increased uncertainty, firms decide to temporarily pause investment and hiring. This is also known as the real option effect of uncertainty. Gilchrist et al. (2014) talk about the rising cost for a firm with a rise in uncertainty. Baker, Bloom, and Terry (2018) constructed a cross-country panel data. Stock market volatility was used as a proxy for the first and second-moment shock. The study use natural disasters, terrorist attacks, and unexpected political shocks as instruments for their measure of uncertainty. The results show that both first and second-moment shocks are significant in explaining GDP growth where second-moment shocks account of at least half of the variation in growth.

In the literature, the way uncertainty is captured or measured, varies. Bloom

(2009), has used implied volatility of the S&P 500 as a measure of uncertainty. Baker et al. (2012), constructed an index to capture economic and policy uncertainty. This index, popularly known as Economic and Policy Uncertainty index (EPU-Index), is a good instrument to capture policy related uncertainty. Gulen and Lon (2015) used this policy uncertainty measure to see that there is a negative relation between policy uncertainty and firm level capital investment.

These studies, although very crucial, looks at the linear relationship between uncertainty and various economic outcomes. In contrast to this we will be focusing on the non-linear relationships. It is quite natural to expect that the impact of a rise in uncertainty will have a more prominent and persistent impact then a fall in uncertainty

Status: To be submitted to Journal

Ongoing Studies

76. Women and the Defence of *Aachaaram* in Kerala: A Historical Account in the Wake of the Neo-Savarna Disturbances around Sabarimala.

J. Devika

This paper tries to take small steps towards the larger project of understanding the larger gendered history and context in and through which such women have been enabled to connect with the Hindutva project in Kerala in the recent conflict around women's entry into the Sabarimala temple. I argue that this requires nothing less than a fine-grained understanding of the reinscription of elite caste power in twentieth century Kerala - through the gradual shaping of what I call the 'neo-savarna' cultural formation, as an unfinished, if powerful, component

of post-independence Malayali social formation – and the centrality of the mutation of *aachaaram* to this process. I trace the vicissitudes of *aachaaram* through the twentieth century and in the present, trying to discern the insertion of women as its custodians and guardians in the discourse of community reformism that produced the neo-savarna.

Status: accepted a chapter in book edited by Nissim Mannathukaren from Routledge, awaiting review report.

77. Inflation, output growth, inflation uncertainty and output growth uncertainty: a two-step approach with structural breaks

Srikanta Kundu Kushal Banik Chowdhury and Gogol Mitra Thakur

Theoretical studies on relationships between inflation, output growth and their uncertainties propose multiple competing hypotheses. On the other hand, the empirical literature on this topic, despite being extremely vast, also presents a mixed picture. We revisit this question in paper using a two-step approach for G7 countries and the period 1970-2016. The first step generates time-varying conditional variances of inflation and output growth. Specifically, we use a bivariate asymmetric GARCH (BAGARCH) model to estimate conditional variances of inflation and output. In the second step, we apply the procedure by Qu and Peron (2007) for detecting multiple structural breaks in the system of equations involving inflation, output growth, inflation uncertainty and output growth uncertainty. Preliminary results indicate presence of at least one structural break in each G7 country as well as significant variations in relationships between these four variables across different sub periods.

Status: Expected date of completion:

December 2023

78. Debt Sustainability, Fiscal Response Function and Economic Policy Uncertainty

Srikanta Kundu and Gogol Mitra Thakur

Uncertainty is a central cause of fluctuations of various macroeconomic variables. Many studies reveal that uncertainty has a negative impact on macroeconomic indicators. Under the uncertain economic circumstances, firms are expected to halt investment demand and reduce hiring due to increase in hiring cost. On the other hand, households increase their propensity to save. Hence, increasing uncertainty may reduce the revenue of the government and may increase the cost of public borrowing. This may affect the government's ability to meet all its current and future payment obligations without exceptional financial assistance. In the present study, we examine how the aggregate uncertainty affects the debt sustainability of an economy and consequently affects its primary balance. Taking quarterly data from 2006 to 2019 on the Indian economy we are analysing the debt sustainability and the fiscal response function to macroeconomic uncertainty.

Status: Expected date of completion: December 2023

79. Public debt sustainability and fiscal reaction function

Srikanta Kundu and Sahana Roy Chowdhury

This paper examines the government's action in terms of adjusting primary balance as a response of the accumulation of public debt. We also examine the sustainability of the public debt vis-à-vis the fiscal fatigue in case of India. Using quarterly data, this paper estimates the fiscal reaction functions using various time

series models. The asymmetric nature of the fiscal reaction function will be examined by using threshold and state-space models.

Status: Expected date of completion: December 2023

New Initiatives

80. The extent of energy transition in Asia-Pacific Countries: A Case of Electricity Energy to mitigate the environmental Concerns of Climate Change

Hrishikesh Mallick, Kashif Nesar Rather⁸ & Mantu Kumar Mahalik⁹

This study examines the role of renewable electricity production in displacement of non-renewable electricity production for balanced panel of 7 Asia-Pacific countries over the period from 1989-2015. The non-renewable electricity production function also controls for overall globalisation, real per capita income and crude oil prices. The fossil fuel function is estimated with the panel PMG-ARDL model. We find that renewable electricity production and globalisation significantly reduce the fossil-fuel electricity production, whereas real per capita income and crude oil prices induce it. Interestingly, the coefficient value of alternative energy production is -0.39, which shows that around 4 units of renewable electricity production are required to displace every one unit of fossil fuel-based electricity production in Asian-Pacific countries. The study concludes that the current energy transition won't allow the alternative energy sources to fully substitute the traditional energy sources.

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This result is robust to the usage of FGLS technique. The study suggests exploring faster and new ways of energy transition which would allow faster replacement of fossil fuel energy per unit of renewable energy than the current rate of transition for achieving complete transition.

Key words: non-renewable, renewable, electricity production, energy transition, PMG-ARDL model, Asia-Pacific countries

81. Economic policy uncertainty, Investor's sentiment and Stock return

Srikanta Kundu, Devika Dilipkumar and Rhythm Sparsh Narayan

The aim of this paper is to examine the impact of investor's sentiment on stock return and volatility in the presence of uncertainty. We will use a novel technique to measure investor's sentiment in case of Indian Stock market. A news based aggregate economic uncertainty will be employed to identify the market conditions. Using monthly data and several nonlinear multivariate time series models, we want to explore the asymmetric impact of uncertainty on investor's sentiment and the impact of both on stock market return and volatility. Further we will extend our study to examine the possible disparities of the impact of investor's sentiment on different sectoral indices as well as on Large/Mid and Small Cap indices.

Status: Expected date of completion: December 2023

82. A Comparative Assessment of Payment for Ecosystem Services (PES) and Community Action using Norms

Thiagu Ranganathan and S Krithi

Sponsor: ICIMOD

Management of forests has been a critical environmental issue which has gathered

scholarly attention across the world. In particular, whether forests need to be managed using a command and control model, or a community based model has garnered wide debates over years. Recent trend has been to align towards implementing market based solutions like payment for ecosystem services for conserving forests. This has generated more questions than answers and our paper addresses an important issue related to using monetary payment for forest restoration using a framed field experiment (FFE). We conducted a framed field experiment in Uttara Kannada region in Karnataka, India where we gave farmers options to restore their common forests using a combination of commercial trees and various types of native species trees. In the three different experimental setup, we varied the combination of monetary and non-monetary payments the farmers received from the native species trees. We find that when compared to native species

that provided only NTFPs, villagers typically did not plant more native species trees or more trees when monetary payments were provided along with non-monetary NTFPs or only monetary payoffs were provided. The behaviour of the participant also varied significantly based on whether they owned private forests called betta land which provided bio-mass for their areca nut farming and whether they had intended to plant trees in the forests. The results highlight the varied interests within different members of the community and how these interests could play a significant role in determining the efficiency and distributional outcomes from a PES implementation.

Keywords: Framed Field Experiments (FFEs), Uttara Kannada, Payment for Ecosystem Services (PES), Forest Restoration, India

Status: Under review as SANDEE working paper



3

OUTPUTS OF RESEARCH

(A) PUBLICATIONS

The Centre has a rigorous research dissemination programme. Dissemination of research is carried out through regular publication of books, monographs, and research reports. The working paper series brings out initial findings of faculty research for discussion and review before they are considered for formal publication. The faculty and students are also encouraged to publish books through reputed publishing houses.

At present there are a total of 513 working papers and 47 books brought out under the CDS programme. This year eight working papers were published. A total of three books have been published by the faculty, 36 research articles by faculty and students in professional journals. 9 chapters in edited volumes and 21 other publications in reports, newspapers, magazines etc. have been brought out. The faculty researches are also published by well-reputed publishers like, Routledge, Springer, Cambridge University Press, Orient Blackswan, World Scientific, Social Science Press, Oxford University Press, DC Books etc.

Books, journal articles, chapters in books, working papers and other publications brought out by the faculty and students are listed below.

(a) BOOKS

Beena P L

Beena PL, Murali Kallummal and Santhosh Kumar (2023) *Indian Economy and Neoliberal Globalisation: Finance, Industry, Trade and Employment*, Routledge, London; <https://doi.org/10.4324/9781003343998>.

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M A Oommen

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(b) JOURNAL ARTICLES

Sudipto Mundle

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(c) CHAPTER(S) IN BOOKS

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Challenges and policy priorities on the eve of the Union budget, Mint, 23 Dec. 2022.

Villages at the periphery and the changing face of backwardness, Mint, 24 Nov. 2022.

Here's the "steam engine" of the 21st century, Mint, 21 Oct 2022.

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Other Publications by Honorary Fellows/ Visiting Professors

P. Sivanandan

P. Sivanandan, "Lives of the Scattered Margins: Scheduled Castes, 25 Years of Decentralization in Kerala- Impact on Scheduled Castes," Research Study Report, Kerala Institute of Local Administration (KILA)

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M A Oommen

'COVID-19 Context in India and Working Towards Alternative Paradigms' in (ed.) Joseph Tharamangalam

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Other Publications by Students/ Post Doctoral Fellows

Gayathri P

P. Gayathri, Olivier Blanchard and Dani Rodrik (Ed.), (2022), *Combating Inequality: Rethinking Government's Role*. Cambridge, Massachusetts, London, England: The MIT Press, 2021, pp. 312, \$34.95. ISBN: 9780262045612. The Indian Economic Journal, 70(3), 546-548. <https://doi.org/10.1177/00194662221104756>

(e) Working Papers

1. Devika J, (2023), "The History of Regimes of Childhood in Kerala: A Preliminary Account", CDS Working Paper Series, No:513.
2. Mohan R (2023), "Outstanding Liabilities of Indian States: Post-Fiscal Responsibility Legislation Period", CDS Working Paper Series, No:512.
3. Basit Abdullah, Vinoj Abraham and Ritika Jain, (2023), "Relative Occupational Aspirations and Youth Unemployment in India", CDS Working Paper Series, No:511.

4. Kannan K P, (2022), "Kerala 'Model' of Development Revisited: A Sixty-Year Assessment of Successes and Failures", CDS Working Paper Series, No:510.
5. Thiagu Ranganathan , Tirtha Chatterjee , Rucha Takle, (2022) Value Chain Configuration in the Indian Tea Economy: A Historical Perspective", CDS Working Paper Series, No: 509.
6. Robert C. M. Beyer, Abhinav Narayanan, Gogol Mitra Thakur (2022), "Natural Disasters and Economic Dynamics: Evidence from the Kerala Floods", CDS Working Paper Series, No:508.
7. Prakash B A (2022), "COVID-19 Pandemic and Exodus of Keralite Emigrant Workers from GCC Countries: Causes of Return, Activity Status of Returnees and Economic Impact", CDS Working Paper Series, No:507.
8. Ajil Mankunnummal, (2022), "Containing the fertilizer subsidy in India: An analysis of subsidy containing strategies and its outcome", CDS Working Paper Series, No:506.
3. Devika J, (2022), "Building Back Better: How and For Whom? Everyday Politics of Post-Disaster Recovery in Puthenvelikara", CDS-RULSG Monograph Series 03

(g) Policy Papers

One policy brief on 'Make in Kerala' was submitted to the Minister for Finance, Government of Kerala and on the basis of which a policy has been initiated and announced in the budget for Kerala for the 2023-24.

(f) CDS Monographs

1. Gautam Ganapathy and Salil C S, (2023), "Bureaucracy, Sustainable Development and Decentralization: Reflections on Jalasamrudhi, a Community-based Water Conservation Programme in Kerala", "Ecological Challenges and Local Self-Government Responses, CDS-RULSG Monograph Series 05
2. Devika J, (2022), "Cronyism, Development, and Citizenship : A Study of the Effects of Quarrying in Pallichal Panchayat, TVM", CDS-RULSG Monograph Series 04

(h) SCOPUS and Google Scholar indexed publication for CDS faculty

Name	Number of documents	Citations		h-index		i10 Index
		Scopus	Google Scholar	Scopus	Google Scholar	
Prof. Sunil Mani	62	397	2551	10	25	66
Prof. K N Harilal	10	188	993	3	13	18
Prof. Praveena Kodoth	14	95	7	5	1	-
Prof. J Devika	49	396	1582	12	22	39
Prof. Vinoj Abraham	18	222	1356	5	17	24
Prof. P L Beena	9	12	513	2	10	10
Dr. Parameswaran M	16	117	178	4	7	6
Dr. Hrushikesh Mallick	44	957	1881	14	23	38
Dr. Thiagu Ranganathan	17	56	232	5	10	12
Dr. Chidambaran Gurunathan Iyer	10	29	121	3	6	4
Dr. Srikanta Kundu	9	61	147	4	5	5
Dr. Ritika Jain	25	115	81	5	1	1
Dr. Rajit Biswas	7	15	31	3	4	-
Dr. Jayaseelan Raj	8	28	208	3	6	5
Dr. Chandril Bhattacharyya	5	17	48	3	4	2
Dr. Tirtha Chatterjee	-	-	98	-	7	6
Dr. Gogol Mithra Thakur	7	-	4	-	-	-

(i) GOOGLE SCHOLAR CITATION**Abhiash, T**<https://scholar.google.com/citations?user=zqMsROUAAAAJ>**P L Beena**<https://scholar.google.com/citations?user=vS0ofSYAAAAJ&hl=en&oi=ao>**Chandril Bhattacharya**<https://scholar.google.com/citations?hl=en&user=u7GdIP4AAAAJ>**Chidambaran G. Iyer**<https://scholar.google.com/citations?user=47HAmA8AAAAJ>**J. Devika**<https://scholar.google.com/citations?user=8b1xY5oAAAAJ&hl=en>**Gogol Mitra Thakur**<https://scholar.google.com/citations?user=sf8r54YAAAAJ&hl=en&oi=sra>**K N Harilal**<https://scholar.google.com/citations?hl=en&user=nVck84cAAAAJ>

Hrushikesh Mallick

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M. Parameswaran

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Rajit Biswas

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Ritika Jain

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Vinoj Abraham

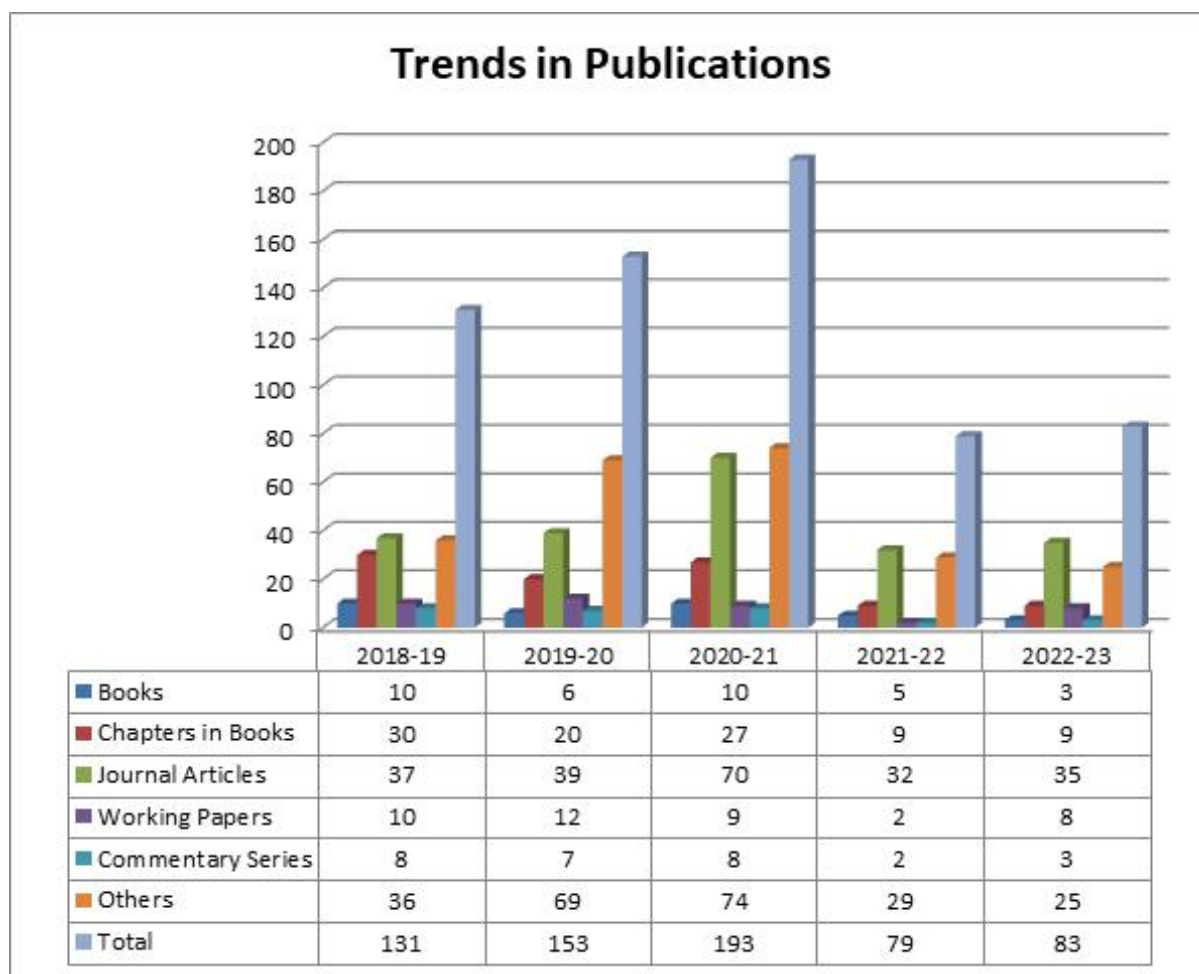
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(j) List of SCOPUS indexed Journal Articles published by CDS Researchers (2022-23)

1. Mani, Sunil (2022), 'The Role of Industrial Policy in Market-friendly Economies Case of COVID-19 Vaccine R&D and Its Manufacturing in India and Its Contrast with the US – II', *Economic and Political Weekly*, Vol.57, No:48, pp.51-58
2. Mani, Sunil, V K Dadhwal, C.S. Shaijumon (2022), 'India's Space Economy, 2011-12 to 2020-21: Its Size and Structure', *Space Policy*.
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4. Mani, Sunil and Chidambaran G. Iyer (2022): Diffusion of digital payments in India, 2011-2012 through 2020-2021: role of its sectoral system of innovation, *Asian Journal of Technology Innovation*, DOI: 10.1080/19761597.2022.2125883
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12. Hrushikesh Mallick, (2022) "Factors driving current account performance of South Asian economies: A comparative empirical analysis", *Journal of International Trade and Economic Development*.
13. Shreya Pal, Mantu Kumar Mahalik & Hrushikesh Mallick, (2022) "Does financial development foster economic globalization in emerging economies? Time series evidence from China and India", *Journal of International Trade and Economic Development*.
14. Kavya Lekshmi R.S. & Hrushikesh Mallick, (2022) "What Deters India to Emerge as A Major Hotspot of Foreign Tourist Arrivals: An Empirical Inquiry From A Determinant Perspective," *Tourism Review International*.
15. Umesh Bhagat & Hrushikesh Mallick, (2023) "Understanding the Structural Dynamics of Aggregate Demand Components and Economic Growth in India" *Economic and Political Weekly* (2023), February 18, 2023, Vol. LVIII, No 7, Pp.55.
16. Zhou Lu, Mantu Kumar Mahalik, Hrushikesh Mallick, & Rui Zhao, (2022) "The moderating effects of democracy and technology adoption on the relationship between trade liberalisation and carbon emissions," *Technological Forecasting & Social Change* 180 .

17. Rahul Ranjan and Hrushikesh Mallick, "Role and Impact of IT Regime on Households' Inflation Expectation: An Assessment for India," (*accepted with EPW*)
18. PL Beena (2022) 'Outward FDI and Cross-Border M&As: Evidence from Indian Corporate Sector', *Economic and Political Weekly*, Vol. LVII No. 47.
19. PL Beena and Smruti Ranjan Sahoo (2023) "IPR Regime and Antitrust Implications of Mergers and Acquisitions: Evidence from the Technology-Intensive Industries," Chapter 9 in *Indian Economy during the Neoliberal Era: Finance, Industry and Employment*', ed by Beena PL, Murali Kallummam and Santosh Kumar, Routledge, London <https://doi.org/10.4324/9781003343998>
20. Harilal K N,(2023) "Democratic Decentralisation in Kerala: A Critique of Recent Experience", *Deepening Democracy: Comparative Perspectives on Decentralisation, Cooperativism and Self- Managed Development*, Joseph Tharamangalam and Jos Chathukulam (Eds.), Routledge, India, ISBN 9781032132846
21. Vinoj Abraham, (2022) "New Technology, Economy and Work: Some Conceptual Underpinnings", *Labour and Development* Vol. 28, No. 2, December.



(B) SEMINARS AND WORKSHOPS HELD AT THE CENTRE

As part of its effort to disseminate the research activities, the Centre conducts a number of conferences, seminars, and workshops. Open seminars/ Webinars are given by faculty and researchers from other institutions from within the country as well as abroad. This year 20 open seminars/webinars were conducted. In addition to this, 7 webinars were given by the CDS Community. The CDS also organized 7 lectures under the Azadi Ka Amrit Mahotsav (AKAM) lecture series, 8 national seminars/conferences and workshops and discussions in addition to 4 Public lectures.

(a.) OPEN SEMINARS/WEBINARS

- 1) Open Presentations on ‘The Psychological Impact of COVID-19 on Centre for Development Studies Community Members’ (8th July, 2022)
- 2) Seminar on “Regional Differences in Intersectoral Linkages and Diverse Patterns of Structural Transformation” by Dr. Saumik Paul, Assistant Professor, University of Newcastle (15th July, 2022)
- 3) Online Discussion on “WTO Agreement on Fisheries Subsidies” by Professor Harilal K. N (16th July, 2022)
- 4) Lecture on “Basic Auction Theory” by Professor Krishnendu Ghosh Dastidar (27th July, 2022)
- 5) Webinar titled “Is there a difference in ESG fund performance among different economies?” by Dr. Nandita Das, Professor of Finance at Delaware State, Director of University Financial Planning & Wealth Management Program.(25th Aug, 2022)
- 6) Seminar on “The Roles and Interactions of Technology and International Institutions for Sustainable Development” by Nikas Scheidt, Karlsruhe Institute of Technology, Germany (14th Sept, 2022)
- 7) Seminar on “The Role of Human Extensibility Technologies in Mitigating the Adverse Effect of Violence Against Women on Women’s Employment Capabilities” by Dr. Ramesh Dangol, Youngstown State University and IIM Kozhikode Fulbright Fellow (7th Oct, 2022)
- 8) Webinar on “Digitalization for Food Security and Farmers Welfare” by Prof. Nilabja Ghosh, Institute of Economic Growth (7th Nov, 2022)
- 9) Webinar on “Exploration and Exploitation in US Technological Change” by Professor Mirko Draca, Warwick University and Director of the CAGE Research Centre (8th Nov, 2022)
- 10) Webinar on “Is the fourth industrial revolution a continuation of the third industrial revolution or something new under the sun? Analyzing technological regimes using US patent data” by Professor Keun LEE, Seoul National University (9th Nov, 2022)

- 11) Webinar on “How does innovation affect well-being?” by Prof. Fulvio Castellacci, University of Oslo (10th Nov, 2022)
- 12) Webinar on “Role of Technology in Governance and Development: The Case of e-Uparjan” by Prof. Satyendra Nath Mishra, XIM University (11th Nov, 2022)
- 13) Webinar on “The Role of Social Media for Innovation” by Prof. Irene Bertschek, Leibniz Centre for European Economic Research. (14th Nov, 2022)
- 14) Webinar on “The interaction between technology, business, environment, society, and regulation in ICT industries” by Prof. Subhashish Gupta (15th and 17th, Nov, 2022)
- 15) Webinar on “Red Tape, ICT, and Corruption” by Prof. Vivekananda Mukherjee (16th Nov, 2022)
- 16) Webinar on “Commodity Price Shocks and Non-Performing Assets in the Indian Banking Sector” by Dr. Abhishek Kumar, Associate Fellow, Centre for Social and Economic Progress (18th Nov, 2022)
- 17) Seminar on “The Use and Abuse of Field Experiments in Environmental Economics” by Dr. Krithi S, Assistant Professor, TISS, Hyderabad and Dr. Thiagu Ranganathan, Associate Professor, CDS (10th Jan, 2022)
- 18) Discussion on “The Unfinished Quest: India’s Search for Major Power Status from Nehru to Modi” by Professor T. V. Paul (24th Jan, 2023)
- 19) Lecture on “New Austrian Monetary Economics” by Dr. Vipin P. Veetil, Assistant Professor, Indian Institute of Management-Kozhikode (24th and 25th Mar, 2023)
- 20) Seminar on “Identification of export opportunities in turbulent times” by Dr Marek Tiits, Senior Research Fellow, Tallinn University of Technology and chairman of the board of the Institute of Baltic Studies, Estonia (29th Mar, 2023)

(b.) SEMINAR/WEBINAR BY CDS FACULTY/ STAFF/ STUDENTS

- 1) NRPPD webinar series: “Value Chain Conundrum in the Indian Tea Economy: A Historical Perspective” by Dr. Thiagu Ranganathan, Associate Professor, CDS (3rd June, 2022)
- 2) Seminar on “Post-Colonial Caste, Ambedkar, and the Politics of Counter-Narrative” by Dr. Jayaseelan Raj, Assistant Professor, CDS (17th June, 2022)
- 3) RULSG webinar titled “Building Back Better: How and For Whom? Everyday Politics of Post-Disaster Recovery in Puthenvelikkara” by Prof. Devika (Presenters Ms. Arathi, Special Correspondent, Keraleeyam and Dr. Anamika Ajay, Research Associate, RULSG-CDS.(1st Aug, 2022)

- 4) Book Symposium on 'Plantation Crisis: Ruptures of Dalit Life in the Indian Tea Belt' by Dr Jayaseelan Raj, Assistant Professor, CDS (23rd Sept, 2022)
- 5) 1st Birsa Munda Memorial Event's discussion on "The Contemporary Tribal Question in India" by Dr. Abhilash T, Assistant Professor, CDS (25th Nov, 2022)
- 6) Authors programme (Discussion on Book) by Professor J. Devika, CDS (23rd and 24th Mar, 2023)
- 7) Book Talk on "Kulachal to De Lannoy: A Historical Analysis" by Mr. Sai Babu S, Administrative Staff, Centre for Development Studies (28 March 2023)

(c) INTERNATIONAL/ NATIONAL CONFERENCES /SEMINARS / WORKSHOPS / DISCUSSION / LECTURES / EVENTS

- 1) NRPPD Compendium Workshop coordinated by Prof. Vinoj Abraham (23rd April, 2022)
- 2) 4th Dr. B.R. Ambedkar Memorial Event-2022 - Panel Discussion on Representation Deficit in Indian Higher Education Institutes by Dr. Vipin P. Veetil, IIM-Kozhikode and Mr. O.P. Raveendran, well-known social activist in Kerala (29th April, 2022).
- 3) ICSSR Sponsored Invited Lecture Series on Challenges and Issues in Indian Agriculture, coordinated by Dr. Thiagu Ranganathan & Dr. Tirtha Chaterjee (9th to 11th May, 2022)
- 4) Norwegian Training Programme on State and Civil Society in Development and Environmental Governance in India coordinated by Dr. M. Parameswaran (30th Aug to 3rd Sep, 2022)
- 5) ICSSR Sponsored Workshop on Information Communication Technologies and Economics coordinated by Dr. Chidambaran G. Iyer (7th to 18th Nov, 2022)
- 6) Conference on Indian Economy held from 28th to 30th November 2022
- 7) Workshop on Methods and Approaches to Research on Migration coordinated by Professor Praveena Kodoth (16th to 20th Jan, 2023)
- 8) Conference on Movements of People and Migration Regimes coordinated by Prof. KN Harilal.(8th to 10th Feb, 2023)
- 9) Teaching Innovations Programme in Economics (TIPE-2023) coordinated by Dr. Vinoj Abraham, Professor, CDS held from (20th Feb to Mar 3rd, 2023)

(d) AZADI KA AMRIT MAHOTSAV (AKAM) LECTURE SERIES

- 1) AKAM Lecture Series webinar on "Haleema Beevi: The Forgotten Renaissance and Pioneering Women Editor" by Noorjahan K., Research Scholar, Department of Social Work, Tata Institute of Social Science, Mumbai and Noora Vallil, Assistant Professor, Department of Malayalam, Farook College, Kozhikode (28th April, 2022)

- 2) AKAM Lecture Series: webinar on “Rethinking Anti-Caste Dissent: Vagbhadananda Gurudevar and the Atma Vidya Sangham in the Twentieth Century Kerala” by Dr. Divya Kannan, Assistant Professor (25th May, 2022)
- 3) AKAM Lecture Series webinar on “Rediscovering Muthukulam Parvathy Amma” by Dr. G. Ushakumari, Associate Professor, KKTU Government College (30th Jun, 2022)
- 4) AKAM Lecture Series webinar “An introduction to the contributions of Thirunalloor Karunakaran” by Shri. T. K. Vinodan (29th July, 2022)
- 5) AKAM Lecture Series webinar “Alleppey Vincent (1938- 1984) : A Practical Utopian” by Dr. Bindu Menon Mannil, Associate Professor, Azim Premji University (30th Sept, 2022)
- 6) AKAM Lecture Series webinar “Balamaniamma’s World” by Prof. K. Satchidanandan (11th Nov, 2022)
- 7) AKAM Lecture Series webinar “Novels, writing and the making of a modern intellectual : situating O. Chandu Menon” by Professor G. Arunima, Director, Kerala Council for Historical Research, Thiruvananthapuram (31st Mar, 2023)

(e) PUBLIC LECTURE

- 1) 12th P K Gopalakrishnan Memorial Lecture on ‘Job Displacement, Unemployment Benefits and Domestic Violence’ was delivered by Professor Sonia Bhalotra, Department of Economics, University of Warwick, Coventry, UK (16th Sept, 2022)
- 2) 13th B.G.Kumar Lecture ‘Is India a Land of Opportunity?’ was delivered by Professor Kunal Sen (21st Nov, 2022)
- 3) 11th Foundation Day Lecture on ‘The Digital Revolution and how the Nature of the Global Economy is likely to Change’ was delivered by Professor Kaushik Basu, Professor of Economics and Carl Marks Professor of International Studies, Cornell University, USA (11th Jan, 2023)
- 4) Webinar in connection with the K. N. Raj Memorial Lecture on “Indian Commercial Banking at Crossroads” by Prof. Partha Ray, Director, National Institute of Bank Management, Pune (10th Feb, 2023).

(III) NETWORKING

(A) PARTICIPATION OF FACULTY IN CONFERENCES/ SEMINARS ELSEWHERE OUTSIDE INDIA

Beena P L

Presented a paper on “*Mergers & Acquisitions in the Technology-Driven Industries in India*” in the conference on “Empirical issues in international trade and finance (EIITF 2022)” 15th-16th December 2022.

Gogol Mitra Thakur

Asian Economic Development Conference 2022 jointly organized by Asian Development

Bank (ADB) and ADB Institute, 14th - 15th July 2022.

100 Years of Economic Development Conference organized by Cornell University, 15th - 17th September 2022.

Praveena Kodoth

Session on Women migrant workers: Livelihood challenges and state response at the Bandung conference between November 8 and 11, Online.

'Informal intermediation of women's migration as domestic workers to the Gulf under the present policy regime and its effects on the labour market', in Conference on Vital yet Vulnerable: Protecting Indian workers in the Gulf, Jan 31 and Feb 1, 2023-05-01

Sunil Mani

Presented a paper on "*IPR Systems and technology catching up, in India*", at Asialics 2022, National Tsing Hua University, Taiwan

Presented a paper on "*Industrial policy for building technological capability in vaccine R&D for manufacturing*", Asialics 2022, National Tsing Hua University. Taiwan

Presented a paper on "*Diffusion of multi-purpose industrial robots in manufacturing in Asia and its likely effects on manufacturing employment*", CICALICS 2022, Zhejiang University, China

Presented a paper on "*Employment implications of the diffusion of multipurpose industrial robots in Indian manufacturing industry*" at International Conference

on "Digital technologies, the world of work(ers) and inequality in the global South University of Witwatersrand, Johannesburg, South Africa

Presented a lecture on "*Employment implications of new technologies*", Annual Conference of the Indian Society of Labour Economics

Vinoj Abraham

Presented a paper on "*Exclusionary Spaces In Collectives - The Case of Rubber Producer Societies in Kerala, India*", with Jerin C Jose, Farmers' Organization and Sustainable Development (Online), Asia Development Bank Institute Conference, 7-9 September 2022

Students**Basit Abdullah**

Participated and presented a paper "Relative Occupational Aspirations and Youth Unemployment in India", co-authored with Vinoj Abraham and **Ritika Jain** in the 6th SANEM Annual Economists' Conference (SAEC) 2023 "Building Resilience to Shocks: Priorities, Challenges and Prospects", Brac Centre Inn, Dhaka, Bangladesh. 5 February 2023

IN INDIA**Abhilash T**

Delivered a Lecture in the National Workshop on the "Collection and usage of Historical Sources" on 9th February 2023, organised by Post Graduate Teaching Department of History, Gondwana University, Gadchiroli, Maharashtra.

Delivered four lectures in Gokhale Institute of Politics and Economics on "Social inclusion and Exclusion of

Tribal communities in India” for the MSc Economics (20th and 21st February, 2023)

As an Expert on Tribal development, participated in Kerala State Planning Board’s write-shop for Preparing Micro-plan for Tribal Development- 2022-23 on 22 September 2022 at State Planning Board Trivandrum.

Beena P L

Presented a paper on “Employment and Productivity of Women owned enterprises in Kerala” in a labour conference organised by ISLE held at Itanagar, Arunachal Pradesh during March 1st to 3rd, 2023.

Presented a paper on “Indian Industry and Private Corporate sector during Neoliberal Globalisation: Theme Presentation” organised by the Economics Department, Kerala University, December 2022.

Presented a paper on “Understanding Growth pattern of Indian private corporate sector”, Calicut University, February 2023.

Presented a paper on “SDG -09: Industry, Innovation & Infrastructure-Sustainable Industrial Practices”, CUSAT, February 29, 2023.

Devika J

Was a Resource Person at the research capacity workshop, ‘Inequalities, Welfare and Democracy in South Asia’ held at the SPPU Campus, Pune, September 26-30, 2022, organized by Swedish International Development Agency (SIDA) and Association for Asian Studies (AAS).

Was Member of the Jury, JCB Literary Prize for 2023.

Harilal K N

Presentation on ‘Localising SDGs: Subnational Governments as Change Agents’, in a National seminar organised by Department of Economics, Kerala University, on the theme ‘SDG II: Zero Hunger: Enabling Food Security for All’

Presented a paper “Centre-State Fiscal Relations in India: Recent Trends;” Sree Narayana Open University, Kollam.

Hrishikesh Mallick

Presented a paper on “Does financial development induce total factor productivity growth in the presence of gender human capital in an emerging economy?”, in Second Biennial Conference on Development on the theme Sustainable Development Goals amidst Multiple Global Shocks: Progress, Challenges and Way Forward, held at IGIDR Campus, Goregaon East, Mumbai during 21-23 December, 2022.

Presented a paper with Pradeep Pradeep K Choudhury on “Do education and vocational trainings lead the Indian workforces to choose self-employment over the salaried employment? Evidence from the non-farm sector”, in Conference on 41st Annual Conference of IARNIW held in New Delhi on 17-18 March, 2023.

Presented a paper with Umesh Bhagat on “Does income distribution matter in accelerating the consumption demand in a demand constrained economy as reflected in stagnating investment? Implication for the overall aggregate demand in India”, listed under the theme Panel 1: Intergroup inequality in income and poverty and its determinants and

related issues, in the Conference on Intergroup Inequality in Indian Society: Magnitude, Nature, Sources, Policies, and the Movement in the 41st Annual Conference of the Indian Association for Research in National Income and Wealth (IARNIW) held in New Delhi on 17-18 March, 2023.

Presented a paper with Umesh Bhagat on "*Does income distribution influence aggregate demand in India?*" listed under the theme of "Macroeconomic Policy Making: Prospects and Challenges" in 6th Annual Economics Conference Organised by Sarla Anil Modi School of Economics, NMIMS, Mumbai in collaboration with The Indian Econometric Society (TIES), on March 25th, 2023.

Delivered two lectures on "Fiscal Reform and Its Impact on Fiscal Performance of the Combined Government in India" and "Role of ICT and Governance on Tax Mobilization in India" on 31 January 2023, in UGC-Human Resource Development Centre, Development Studies, University of Calicut, on January 31 - February 13, 2023.

Praveena Kodoth

'Migrant Domestic Workers from India and the Labour Market in the Middle East', Plenary address at the two day UGC sponsored National Conference on Challenges to the Indian economy and sustainable development conducted by Department of Economics and Dr Ambedkar Study Centre, Avinashilingam Institute for Home Science and Higher Education for Women, February 2 and 3, 2023.

'Dowry in Contemporary India' at the IAWS southern regional conference on State, Market and Judiciary in

South India: Current Policies in an intersectional perspective, in Trichy, July 9 and 10, 2022

Ritika Jain

Presented a paper, "Impact of COVID-19 lockdown on profitability of firms in India" in 17th Annual Conference on Economic Growth and Development-2022, Indian Statistical Institute- Delhi, December 2022.

Presented a paper, "The road to safety: Re-examining the nexus between road infrastructure and crime in rural India" in 17th Annual Conference on Economic Growth and Development- 2022, Indian Statistical Institute- Delhi, December 2022

Presented a paper, "The road to safety: Re-examining the nexus between road infrastructure and crime in rural India in Economic Aspect of Public Policy Conference", Jadavpur University, Kolkata, December 2022

Presented a paper, "Information and communication technology and female employment in India" in a national Conference "Changing Characteristics of the Indian Labour Market: Issues and Challenges in the backdrop of Covid-19" at SPIESR, July, 2022

Presented a paper, "Does reservation hurt firm performance? Evidence from the Indian PSEs" in a national Conference "Changing Characteristics of the Indian Labour Market: Issues and Challenges in the backdrop of Covid-19" at SPIESR, July, 2022

Presented a paper, "Information and communication technology and female employment in India" in Labor Conference at Goa Institute of

Management, May, 2022

Presented a paper, "Does reservation hurt firm performance? Evidence from the Indian PSEs" in Labor Conference at Goa Institute of Management, May, 2022

Sunil Mani

Presented a lecture on "Diffusion of industrial robots in Indian manufacturing and its potential actual employment implications" Refresher Course for College teachers, University of Kerala

Srikanta Kundu

Invited lecture on "Simple and Multiple Regression using R" and "ARCH and GARCH Application for Volatility Prediction" in a national workshop on *Business Analytics using R and Other Statistical Software organized by NIBM, Pune on July 6-7, 2022*

Thiagu Ranganathan

Participated in the Executive PGP, IIM Kozhikode

Vinoj Abraham

Keynote Address on the theme "Rural Non-farm Sector Employment in India: Shift or Diversification?" at the 63rd Annual Conference of the Indian Society of Labour Economics, Raiv Gandhi University, Itanagar, Arunachal Pradesh, March 1-3, 2023

Presented a paper "Perspectives and Strategies for Gig and Platform Economy in India", with Dr. Sakshi Khurana in the 63rd Annual Conference of the Indian Society of Labour Economics, Raiv Gandhi University, Itanagar, Arunachal Pradesh, March 1-3, 2023

Presented a paper "International migration, COVID and effects on employment: Findings from a Kerala village" Coauthored by Parameswaran M, Praveena Kodoth, , Ritika Jain in the 63rd Annual Conference of the Indian Society of Labour Economics, Rajiv Gandhi University, Itanagar, Arunachal Pradesh, March 1-3, 2023

Presented a paper "Return Migration and Economic Reintegration in Kerala", with Dona M, Conference on Movements of People and Migration Regimes, Centre for Development Studies, 08 - 10 February 2023

Presented a paper "Wage stagnation and wage productivity decoupling: Evidence from India" with Sasikumar S K in the 62nd Annual Conference of the Indian Society of Labour Economics, IIT Roorkee, Uttaranchal , 11-13th April, 2022

"Keynote address on the theme Structure of Employment and Labour Market" at the International Conference on State of Employment in India: Problems and Prospects Organised by Centre for Public Policy and Governance Goa Institute of Management, May 10-11, 2022

Participation of Students in Conferences/ Seminars/ Workshops

Gayathri P

Participated in the Bergen Summer Research School 2022. As part of this summer school prepared policy brief for UNICEF on Child poverty in Indonesia.

Presented PhD synopsis on 'Equality of Opportunity and Unfair inequality in India' in the Doctoral Proposal Track at the 15th Doctoral conference organized by IGIDR and IBS during May 5-6, 2022.

Himansu Sekhar Thapa

Presented a paper on 'Dynamics of Coping Decision Making in Agriculture in Response to Climate Change: A Study of Semi-arid East Indian States of India' at the International Conference on Biodiversity, Climate Change and Sustainable Agriculture Towards Food Security (ICBCSAFS-2023) organised by Centre for Natural Farming & Sustainable Agriculture, Faculty of Agriculture, Annamalai University, Sponsored by RUSA 2.0 on 10th March 2023.

Participated at the 'International Workshop on Climate Change and Agriculture: Analytical Methods and Policy Options' organised by the Centre for Agricultural and Rural Development Studies, Tamilnadu Agricultural University, Coimbatore, India, in collaboration with International Food Policy Research Institute (IFPRI), Washington D.C., USA and Economic Research Institute for ASEAN and East Asia (ERIA), Indonesia held from 17.01.2023 to 19.01.2023 at CARDS, TNAU, Coimbatore.

Attended the residential Summer School on 'Land Governance and Development' jointly organised by the School of Public Policy and Governance of Azim Premji University (APU), Bangalore and NRMC India Centre for Land Governance, Bhubaneswar, held on 20-25th June 2022 at Azim Premji University campus, Bangalore.

Basit Abdullah

Presented a paper "Relative Occupational Aspirations and Youth Unemployment in India", co-authored with Vinoj Abraham and **Ritika Jain** in the following conferences..

International Conference on The State of Employment in India, Centre for Public Policy and Governance (Goa Institute of Management). 11 May 2022

62nd Labour Economics Conference, The Indian Society Of Labour Economics (IIT Roorkee). 12 April 2022

Presented a paper "Changing Industrial Structure and Non-Farm Self-Employment in India" at National Virtual Conference on Revving Up the Rural Non-Farm Economy: Potential and Strategies" at GIDR, Ahmedabad, on 14th October 2023.

Sandeep Pandey

Presented a paper on "Economic policy uncertainty and output, a nonlinear relationship for India" with Dr Srikanta Kundu in the 57th Annual Conference of the Indian Econometric Society (TIES) held at University of Hyderabad, Hyderabad, from 4th to 6th January, 2023

Presented a paper on " Revisiting the transition of modern economics: A note on Sraffa's idea of economic analysis" with Dr. Thiagu Ranganathan in the "YSI International Workshop at HCU, Understanding Economic Theory and Development in a Sraffian Framework"(November 19- 21, 2022).

Participation by Honorary Fellows**K P Kannan**

Delivered the Radhakamal Mukerjee Memorial Lecture on 12 April 2022 at the 62nd Annual Conference of the Indian Society of Labour Economics held during Aprilxxx, 2022 at the Indian Institute of Technology, Rourkee, Uttarakhand. Title: India's Elusive Quest for Inclusive Development: An

Employment Perspective’.

Delivered the Professor K. Ramachandran Nair Memorial Lecture on 12 December 2022 at the Department of Economics, University of Kerala, Kariavattom, Thiruvananthapuram. Title: The Emerging International Economic Order: India’s Opportunities and Challenges.

M A Oommen

Distinguished Lecture on *‘Indian Development and its discontents’*, delivered at the Institute of Management in Government (IMG), Kerala, India, on February 13, 2023.

Inaugural address on *‘Unfurling the Indian Economy: A Freedom Capability Perspective’*, delivered at the webinar on Unfurling Indian Economy: Growth, Transformation & Sustainability, organised by Department of Economics, University of Kerala, Thiruvananthapuram.

(D) SERVICES TO ACADEMIC COMMUNITY

(a) COLLEGE MENTORING PROGRAMME

The College Mentoring Programme (CMP) is one of the two sub components of the K N Raj Fellowship programme. Its aim is to help improve the quality of economics education in colleges and universities in Kerala by focusing primarily on government owned institutions. The programme commenced in 2019-2020.

Under the CMP, CDS has successfully completed the mentorship to Department of Economics of Government College, Nedumangad, Trivandrum during the period 01 April 2019 to 31 March 2022. With help of this programme college secured the

coveted NAAC accreditation with Grade A.

Also, CDS has started mentoring the Department of Economics of Government College, Attingal, Trivandrum from 01 November 2021 onward for a period of three years. In the current year the Centre has donated 76 books in economics worth Rs. 96,616/- to the college library. Further, all the teachers and research students of the college were given complementary membership to the K N Raj library at CDS. Also, all the faculty and students of the department is placed on the CDS’s mailing list for all academic events at the Centre, such as seminars, special lectures, conferences and workshops.

I am happy to inform you that Mr. Renjith R (MA Economics 2020-2022 Batch) secured first position in the MA Economics programme under Kerala University. He was a student of Govt. College Nedumangad during the time of collaboration with CDS. I believe that the collaboration with CDS has benefited him in his academics.

Thank you,

Regards,

Nandu C J
Dept. of Economics,
Govt. College,
Nedumangad, Thiruvananthapuram

(b) REPRESENTATION IN COMMITTEES/ TASK FORCES/ ADVISORY BODIES

Abhilash T

As an Expert on Tribal development, participated in Kerala State Planning Board's write-shop for Preparing Micro-plan for Tribal Development- 2022-23 on 22 September 2022 at State planning Board Trivandrum.

One of the Chairpersons of Canteen Management Committee of CDS

Beena P L

Member of the Public Expenditure Committee, Government of Kerala, 2022.

Evaluated and Conducted Ph D viva at Dr. John Mathai Centre, Calicut University, Trichur during November 2022

Chidambaran G Iyer

Shared insights of the work on Electronics System Design and Manufacturing (ESDM) with a team led by the Special Chief Secretary (Finance), Government of Telangana, to help the team make informed policy choices.

Refereed a paper for the Journal of Asia Pacific Economy.

Refereed a paper for the Orissa Economic Journal.

RAC member for one 2019 PhD student, PhD re-registration committee member for a 2008 PhD student, Chairpersons of Canteen Management Committee, Member of Campus Management Committee.

Member of advisory Committee to the Research Programme on International Migration from Kerala, CDS

Devika J

External Member, School Board, School of Social Sciences, Central University of Hyderabad.

Member, Editorial Board, Indian Journal of Gender Studies

Member, Editorial Board, Review of Development and Change.

Member, Editorial Board, Critical Perspectives in South Asian History [Book series], Bloomsbury Publications

PhD coursework coordinator, Chairperson of Campus Committee, Member of Staff Welfare Fund Committee

Gogol Mitra Thakur

Invited adjunct faculty at IIM Kozhikode, Economic Environment for Section C of PGP 26 batch (30 hours of teaching)

Invited adjunct faculty at IIM Kozhikode, Macroeconomics for PGPLSM 03 batch (20 hours of teaching)

Harilal K N

Chief Co-ordinator 'Kerala in the World Economy' Series International Seminar on 'Movement of People and Migration Regimes', 8- 10, February 2023

Invited to join the Editorial Board of the 'journal of State and Society' being re-launched by the Inter-University Centre for Social Science Research and Extension, M.G University, Kottayam

Hrishikesh Mallick

External examiner (Sept 2022) to evaluate a Ph.D thesis at XIM University, BBSR.

External examiner (March 2023) to evaluate a Ph.D thesis and Chairperson of the Committee to conduct the Viva-Voce examination at BITS Pillani.

External Examiner of a M.Phil Dissertation and also conducted the Viva-Voce examination in Central University of Gujarat (2022)

Editorial Review Board member in "Social Work and Social Welfare"

<https://www.syncsci.com/journal/SWSW/about>

Reviewer's Board for the *Athens Journal of Business & Economics*, *Athens Institute for Education & Research* (A world association of Academics and Researchers)

M. Parameswaran

PhD Coordinator, Convener Academic Programme Committee, Hostel Warden

Ritika Jain

Associate coordinator of PhD programme, Chairperson of the Library Committee, Hostel Warden, SMS member

Sunil Mani

Associate Editor, *Structural Change and Economic Dynamics*, Elsevier, <https://www.sciencedirect.com/journal/structural-change-and-economic-dynamics/about/editorial-board>

Member, Editorial Board, *International Journal of Technology and Globalization*, <https://www.inderscience.com/jhome.php?jcode=ijtg>

Member, Editorial Board, *International Journal of Technological Learning, Innovation and Development*, <https://www.inderscience.com/jhome.php?jcode=ijtlid#edboard-content>

Member, Court, Jawaharlal Nehru University, New Delhi

Member, Academic Committee, Jawaharlal Nehru University, New Delhi

Member, Academic Committee, Arun Jaitley National Institute of Financial Management, <https://www.ajnifm.ac.in/about-NIFM/members-academic-committee-mbafinancial-management-and-mbafinance>

Member, Advisory Committee, Centre for Science, Technology and Innovation Indicators | Human Sciences Research Council. South Africa

Member, Research Advisory Council, Centre for Technology, Innovation and Economic Research (CTIER), Pune. <http://www.ctier.org/people.html>

Vinoj Abraham

Member, research team VVGNLI Research Study on 'Gig and Platform Workers in India' for NITI Aayog, 2021-22

Member, Board of Studies, Calicut University, Calicut, Kerala,

Member, Board of Studies, Benaras Hindu University, Varanasi

(c)TEACHING, CO-ORDINATING TRAINING PROGRAMMES AT CDS/ EXTERNAL TEACHING**Beena P L**

Presented a paper on "Database on Indian Economy", "Teaching Innovations

Programme in Economics” Programme and Norwegian Program

Chandril Bhattacharyya

Presented four lectures in Teaching Innovations Programme in Economics

Chidambaran G. Iyer

Coordinated the two-week ICSSR sponsored workshop on “Information Communication Technologies and Economics” from 7 till 18 November 2022.

Iyer C.G. “Mobile Manufacturing in India” in the ICSSR sponsored workshop on “Information Communication Technologies and Economics.” 7 November 2022.

Iyer C.G. “Diffusion of Digital Payments in India: A tale of two technologies” in the ICSSR sponsored workshop on “Information Communication Technologies and Economics.” 9 November 2022.

Moderated a session on Rubber in the Workshop on Compendium on Plantation Crops on 23 April 2022.

Iyer C.G., “Coffee sector in India: A study of few selected issues” presented in the Workshop on Compendium on Plantation Crops on 23 April 2022.

One session on “Sampling” and two sessions on “Technology and Innovation in Indian Economy” in TIPE 2023.

One session on “Input-Output tables and Social Accounting Matrix” in the CDS Workshop on Database on Indian Economy on 14 December 2022.

Evaluator for one presentation for the course on Indian Economy for second semester PhD students.

Evaluator for a thesis pre-submission seminar for a 2008 PhD student.

Devika J

Organized and chaired session on local governance in the Conference on Indian Economy at CDS, 28-30 November 2022.

Co-organised a two-day seminar on ‘Kerala’s Finances’ with the Kerala Sastra Sahitya Parishat, with the RULSG, CDS, supporting the one day devoted to presentations on Kerala Local Government Finances, 5-7 December 2022.

Organized and chaired writing workshop towards publication of conference papers from the Kerala and the World Economy conference of Feb 2022.

Organized and chaired panel discussion on RULSG policy dialogue document on Rehabilitating Displaced Persons from the Thiruvananthapuram Coast , 30 March 2023.

Hrishikesh Mallick

Chaired a seminar “The interaction between technology, business, environment, society, and regulation in ICT industries” by Prof. Subhashish Gupta, Indian Institute of Management-Bangalore on 15th in connection with the ICSSR Sponsored Workshop on Information Communication Technologies and Economics, conducted by CDS, November 7 - 18, 2022.

Delivered a lecture “ICT and Taxation in India” at CDS 17th November 2022, sponsored by ICSSR on ICT and Economics workshop.

Delivered two lectures in the Database on Indian Economy offered by CDS to Researchers from other colleges and universities on 12th and 13th Dec 2022

(Issues in Indian Public Finance and Issues on Energy Consumption and Environment).

M. Parameswaran

Coordinated the field course titled ‘‘EDS387 State and Civil Society in Development and Environmental Governance in India’’ of Department of International Environment and Development studies (Noragric), Norwegian University of Life Sciences (NMBU), conducted during August 29 to September 05, 2022.

Gave two lectures in the workshop ‘‘Database on Indian Economy’’ conducted during December 5 to 16, 2022.

Presented a paper titled ‘‘International movement of capital, labour and commodities and global accumulation’’, in Conference on Movements of People and Migration Regimes at CDS on February 08, 2023.

Gave class on ‘‘Estimating and Testing structural breaks’’ on February 14, 2023 at Gulati Institute of Finance and Taxation.

Gave two lectures on Macroeconomics at TIPE Programme on February 23 & 24, 2023.

Praveena Kodoth

Organised a workshop on ‘‘Methods and Approaches to Research on Migration Issues’’ at CDS between Jan 16 and 20, 2023 for research scholars and young professionals from across the country.

Participated in the TIPE Programme and other workshops organised by CDS.

Ritika Jain

Presented papers in seminars and training programmes at CDS like Teaching

Innovations Programme in Economics (TIPE), Database on Indian Economy and Methods and Approaches to Research on Migration Issues.

Sunil Mani

Presented a lecture on ‘‘India’s External Sector’’, Teaching Innovations Programme in Economics

Two lectures on ‘‘Innovation statistics and the External Sector’’, Database on Indian Economy

Presented a lecture on ‘‘Economic implications of High Skilled Migration from India’’, Methods and Approaches to Research on Migration Issues

Srikanta Kundu

Five lectures on Econometrics theory and Application in Teaching Innovations Programme in Economics (TIPE) in CDS

Thiagu Ranganathan

Presented a lecture in Teaching Innovations Programme in Economics (TIPE), Database on Indian Economy and Methods and Approaches to Research on Migration Issues

AWARDS AND ACCOLADES

Ritika Jain



The Centre extends its hearty congratulations to Dr. Ritika Jain for being the first recipient of the CDS Prize for the best performing Assistant Professor in terms of publications (for the biennium 2019-2021). The Committee of Direction of the Centre has instituted this award to encourage younger CDS faculty to improve their publication record. A cash award of Rs.50,000/- for the Assistant Professor of CDS who has the largest number of SCOPUS-indexed journal articles (subject to a minimum of at least two) during a biennium starting with the 2019-21 biennium. Professor Kaushik Basu, Cornell University, gave away the award on CDS Foundation Day held on January 11, 2023.

Anamika Ajay



Ms. Anamika Ajay who is working as Research Associate in the Research Unit on Local Self-Government, has been awarded the Chief Minister's Post-Doctoral Fellowship this year. Her application was supported by CDS.

4

TEACHING AND TRAINING PROGRAMMES

(a) Doctoral Programme in Economics

The Doctoral Programme at the Centre allows scholars to register under either JNU or the University of Kerala. Of the 251 scholars who were admitted during 1975-2022, 109 scholars have been awarded PhD Degree: 100 from JNU and 9 from KU. 36 scholars discontinued from the programme and others are in different stages of their doctoral research. 10 theses are under evaluation.

Overview of the Year

2022 Admission:

Direct PhD

8 students joined the PhD Programme in 2022.

Integrated MPhil/PhD:

In 2014 CDS introduced an Integrated MPhil/PhD programme along the lines of the regulations of Jawaharlal Nehru University, New Delhi as we are affiliated to JNU for the conformant of our Degrees. 12 candidates were admitted in 2018 for the Integrated MPhil/PhD programme. As on 31st March 2023, all the 12 students submitted their MPhil dissertation. One student discontinued from the PhD Programme and the other 11 students got provisional admission to the PhD Programme.

As on 31st March 2023, ten theses are under evaluation at JNU:

- *Monetary policy in India: A study of its evolution, conduct and transmission*
Irfan Ahmad Shah, 2016, UGC Fellowship
Supervisors: Dr. M. Parameswaran &
Dr. Srikanta Kundu
- *Multinationals: Relative performance and spillovers –a study of Indian manufacturing*
Rajesh P., 2016, RBI Fellowship
Supervisors: Dr. Hrushikesh Mallick & Prof. K. J. Joseph

- *Institutions, innovations and livelihood strategies: Study of small growers in natural rubber*
Sajitha A. , 2012, UGC Fellowship
Supervisors: Dr. M. Parameswaran & Prof. K. J. Joseph
- *Dynamics and sources of industrial output volatility: Evidence from India*
Atish Kumar Dash , 2008, ICSSR Fellowship
Supervisors: Dr. Hrushikesh Mallick & Dr. N. Vijayamohanan Pillai
- *Grounded globalisations and shaping of the local: A political ecology of Kerala's midlands and highlands*
Mijo P. Luke , 2016, UGC Fellowship
Supervisor: Prof. J. Devika
- *Cash versus in-kind transfers: The Indian experience*
INDRAJEET KUMAR , 2016, UGC Fellowship
Supervisors: Prof. U. S. Mishra & Dr. Hrushikesh Mallick
- *Challenges and prospects of tourism as a development option: The experience of Kerala*
Nalini Netto, 2001
Supervisors: Prof. Amit S Ray & Prof. Vinoj Abraham
- *Economics of the efficiency of state transport undertakings in India*
Binoy John K. V. , 1999
Supervisors: Dr. Srikanta Kundu & Prof (Rtd) K. Pushpangadan
- *Industrial agglomeration: A study of the Indian manufacturing sector*
Smruti Ranjan Sahoo, 2016, ICSSR Fellowship
Supervisors: Prof. Beena P. L. & Dr. M. Parameswaran
- *Understanding the nature and performance of enterprises owned by marginalized social groups in India*
Rajesh I. D., 2017- GoK Fellowship
Supervisors: Prof. Beena P.L. & Prof. Vinoj Abraham

The following six scholars have been awarded PhD degree by JNU since the last reporting year.

- ❖ *Inequality, Pro-Poor Growth and Development: The Indian Experience*
Amartya Paul, 2015, ICSSR Fellowship
Supervisors: Dr. Srikanta Kundu & Dr. N. Vijayamohanan Pillai

The discussions on development have often recurred around the relationship between economic growth, poverty and income inequality. Welfare economists have inquired about three questions in this context: Has growth been welfare-enhancing? How the gains or losses of growth are distributed among the population sub-groups? What policy interventions can make the distributional effects of growth more inclusive? While the first two questions directly address the growth effects on poverty and inequality

(that involve certain normative judgments), the third, on the other hand, calls for a systematic institutional intervention, leading to formulation and implementation of economic policies that can create inclusive opportunities for various sections of the population.

As widely known, the Indian economy has embarked on a high growth phase, driven by open economy policy regimes, in the recent decades after liberalisation. This high economic growth regime has been accompanied by a steady decline in poverty and a rise in inequality. Arguably, rising inequality offsets the potential gains of growth for the poor class much more than the non-poor. However, alternative theories and empirical evidence suggest, the impacts of growth tend to be distribution-neutral on average and thus do not have a differential impact on poverty reduction across sub-groups. Therefore, it is not exactly clear how the benefits (or losses) from growth are distributed among the various constituent groups of a population. Thus far, empirical methods have primarily relied on aggregate measures that often mask the unequal distribution pattern. India serves as a unique country as it has gone through various changes in the political economy of growth in the recent past.

Against this backdrop, this thesis entirely draws on the literature of pro-poor growth – analogous to the concept of inclusive growth – that has been instrumental in conceptualising and measuring the extent of ‘inclusiveness’. We first assess the incidence of *inclusiveness* using three standard measures of pro-poor growth – the Growth Incidence Curve, the Rate of Pro-poor Growth and the Poverty Equivalent Growth Rate – that follow fundamental axioms of welfare. The analysis is done at the national level first. Then it is extended to the sub-national level to understand the regional dynamics of growth, poverty and inequality. We use all the available quinquennial Household Consumer Expenditure Survey data published by the National Sample Survey Office, Government of India. The period of analysis spans three decades from 1983 to 2011-12. Our analysis follows a uni-dimensional framework and uses per capita consumption expenditure as the evaluation metric, with an underlying assumption that it posits a monotonic relationship with the per capita income. Results indicate that the states have had an entirely heterogeneous experience than that of the country. It varies substantially across growth spells, rural-urban areas, and the pre-post liberalisation period. Aggregate evidence suggests, growth has largely been anti-poor in urban areas and sporadically pro-poor in rural areas. We find evidence of pro-poor growth at the state level during a growth spell in which the country level experience showed otherwise. Further, in a significant number of spells, we found that economically backward states have shown evidence of pro-poor growth than the economically well-off states. The results are systematic and robust across short and long-term growth spells.

In general, our findings from the previous analysis point to the fact that states have had an entirely heterogeneous experience in terms of their achievement in pro-poor growth. We test this heterogeneous performance from the viewpoint of redistributive policies that states’ often undertake as a measure of welfare. This implicitly attempts to understand the process through which pro-poor growth might have taken place over time. Using a partial equilibrium framework wherein a causal analysis is employed

to understand whether *state* as a federal entity can explicitly formulate policies that significantly drives the impact of growth more pro-poor or not. To do this, we construct a unique state-level panel data set using seven rounds of Indian National Sample Survey data spaced between 1983 and 2011-12. This analysis seeks to contribute to the long-going growth versus development debate by showing evidence that reveals redistributive policies, at any level, enhances economic welfare and possibly makes the growth process more inclusive. Results are consistent irrespective of the initial conditions of the state, across income groups and for an alternative classification of redistributive policy. Additionally, our findings suggest effects of the liberalisation policy has largely been negative on inclusive growth.

Following this, we analyse how the level of education in a state determines the efficacy of government policies leading to heterogeneous outcomes in terms of inclusiveness of growth. We argue that achieving a certain minimum level of education can enhance the bargaining power of beneficiaries which will potentially bring higher accountability among the implementing authorities at the local and higher level. As a result, it might be the case that it would help better policy utilisation of states and thereby make the growth process more inclusive. We statistically test the existence of this minimum level of education, called threshold value, below and above which the effectiveness of redistributive policies may vary significantly. To address this, we employ a panel threshold model where the threshold value is an unknown parameter and determined endogenously by minimising the residual sum of square. Broad results indicate that the existence of the threshold is statistically valid. On average, in states with literacy rates in the neighbourhood of 55% and more, or when more than 12% and 10% of the population having eight years and ten years of schooling, respectively, the impact of state policies are positive and statistically significant.

After analysing the aggregate impact of policies, the final chapter looks at correlates and specific policy effects of poverty transition – the main component of pro-poor growth. The analysis is done by considering the India Human Development Survey data, which provides two waves of nationally representative, large sample household-level information where a particular household is tracked over two waves of the survey. Our empirical method employs an endogenous switching regression model that corrects potential selection bias due to initial poverty. In addition, to establish that our estimates are correct and not otherwise driven by panel attrition, we follow the inverse probability weighting technique. Results indicate that the Mahatma Gandhi National Rural Employment Guarantee Scheme and the intervention of the Kisan Credit Card have a significant negative impact on the likelihood of new entry to poverty. These public policies have cushioned vulnerable groups from falling into poverty. However, it does not show any impact on the likelihood of escaping from poverty. We argue that sector-specific anti-poverty policies taking into account group heterogeneity are important to ensure moving out of poverty and prevent entering into it.

Through the stated research objectives, this thesis highlights the role of institutions, human capital, and specific anti-poverty programs in progress toward achieving

pro-poor growth. The aggregate analysis shows a plausible positive effect, while the disaggregated analysis calls for group specific policy intervention.

Key Words: Pro-poor Growth, Redistributive Policy, Education, Poverty Transition, Anti-Poverty Programs, Panel Threshold model.

- ❖ *Land Alienation and Occupational Changes among Adivasis in India*
John Kujur, 2017, National Fellowship for Higher Education (NFHE)
 Supervisors: Prof. U. S. Mishra & Prof. S. Irudaya Rajan

Adivasis in the past were a landholding class and were having land-linked occupations such as settled cultivation, shifting cultivation, pastoralism, hunting and gatherings etc. Over the period, however, their landholdings and access to common property resources declined due to the growing land dispossession by industrialisation and urbanisation. The land alienation among them occurred both in the Colonial as well as in the post-colonial period. During the colonial period, the forest policies limited their access to the traditional source of livelihood which turned them into landless labour and subsequently led to change in their occupation in some parts of the country. However, the land alienation among them was intensified during the Nehruvian regime as the lands were acquired at a large scale for the state-run industries, and later under the neoliberal regime, acquired for private industries and special economic zones. The Indian state, throughout its post-colonial history, adopted policies that focused more on industrialisation, urbanisation, and mechanisation of agriculture for mass production. Such policies, however, resulted in two major processes: a) the social means of subsistence and production of adivasis were turned into capital for the state as well as for the private corporates, and b) adivasis, who were immediate producers and controlled resources, were turned into wage labourers. This brought about a shift in their occupational patterns. Although industrialisation and urbanisation generated ample employment opportunities, they could not absorb them in large numbers and even if some could be absorbed, remained limited to the lowest rung of the employment hierarchy. Such transformation has intensified their vulnerability in employment exacerbated in contemporary India as they are mostly reduced to rural and urban workers, and shifting from main workers to marginal workers.

Against this backdrop, the current study attempts to explore the complex processes involved in the occupational changes among adivasis in the context of land alienation. Many studies attempted to address this issue; however, the paucity of data on land alienation restricted it to field survey-based case studies. The issue of land alienation and occupational changes among adivasis is not specific to any specific region rather it is universal all across the country. So, to fill this gap, the current study uses the land-related information collected in the Employment and Unemployment Survey (EUS) by National Sample Survey Office to analyse the landholding and occupational changes among them. The study primarily focuses on three broad issues such as land vulnerability, intergenerational occupational mobility and occupational changes among adivasi women. To address the three distinct concerns and to draw inferences from the data, the study primarily uses simple descriptive statistics, segregation index and

transition matrix approach. The transition matrix analysis in this study is restricted to male members of the households since EUS does not identify the married women who live in their spouses' home and also constitute a majority of the female working population, and their parental household.

The study evinces that although adivasis occupy a better position in terms of landholdings, the rate of increment in vulnerability in landholding is higher among them. That is, the proportion of adivasi households in the zero landholding category has been increasing over time. The urban living adivasis on the other hand have turned out to be more vulnerable in terms of landholding. The growing land vulnerability among them has a bearing on their occupational pattern over time. More than one-third of the adivasi workforce is involved in precarious occupations. The inter-generational occupational mobility among them on the other hand, has been to a large extent characterised with immobility that is the continuation in the preceding generation's occupation by the current generation of worker. In the rural area, occupational immobility is relatively worse in the precarious occupation i.e. agricultural labour and unskilled manual labour. Moreover, a sizable proportion of the current generation has witnessed downward occupational mobility to agriculture activities that is cultivation and agricultural labour from the higher paid occupations such as salaried, and skilled and semi-skilled occupations. Conversely, in the urban area, where landlessness is significantly high, immobility is higher in the higher paid occupations and lower in the precarious occupations. Perceptibly, the upward mobility particularly from the occupation of agriculture labour is relatively greater in urban areas. On the other hand, the downward mobility from the salariat occupations and cultivation is equally noticeable among the urban living adivasis. Consequently, the immobility in these occupations amongst them has become lower than that of the rural living adivasi households.

Apart from this, the study also sheds light on the gender aspect of occupational change in the context of change in landholding patterns. The study confers that adivasi women's likelihood of being in the labour force with reference to their non-adivasi counterpart has worsened in both rural and urban regions over time. On the other hand, landlessness has forced more adivasi women into domestic duties than that of women in general. Moreover, adivasi women owning a larger amount of landholding have a better chance to move to higher-paid occupations, particularly in urban regions. Conversely, the lower landholding adivasi women in urban areas are more likely to be employed in precarious occupations. Unlike the overall scene for women, the share of cultivators among adivasi women has increased in rural regions.

The above findings conclude that land alienation has an immense impact on the occupational patterns of adivasis. Although a mixed impact i.e. positive as well as adverse impact on the occupational transition among male adivasis is observed, female counterparts seem to be more adversely affected owing to land alienation. On the whole, nearly 40 per cent of the adivasi population continues to depend upon precarious occupations for their livelihood. At last, this analysis on adivasi and land alienation suggests that there is a need to tighten and redesign the laws and policies related to the possession of indigenous land and also reformulation of policies with a gendered

lens to minimise the adversities of land alienation on female Adivasis. A suggestive evidence on land alienation and its consequential derivative on occupational patterns of males and females calls for greater caution as regard land relations and livelihood.

Keywords: Adivasis, land alienation, occupational mobility, Adivasi women

- ❖ *The Agrarian Question and the Transition of Rural Labour in India*
Yadu C. R., 2014, ICSSR Fellowship
Supervisor: Prof. Vinoj Abraham

Most accounts of structural transformation in India take the form of a 'macro view'. This thesis takes a divergent path by attempting to examine the labour and employment transition in India from a micro-level perspective and tries to disentangle the processes shaping the labour market outcomes. By anchoring itself in the Critical Agrarian Studies (CAS) approach, the study approaches the labour and employment transition from the vantage point of agrarian transformation in rural India. It is designed as a Long Term Village Study exploring the cases of two villages - Veerasambanur and Vinayagapuram - in North Tamil Nadu. The yearlong fieldwork involved the collection of quantitative and qualitative data from these villages.

The study approached rural labour from the perspective of three employment categories, viz, agricultural petty producer, agriculture wage labours, non-farm workers. The study brings out the current nature of the agrarian crisis in the Indian countryside and the implications of it for the livelihood of petty producers. At the village level, the deterioration of local ecology constituted a major contributor to the crisis engulfing crop production. In conjunction with economic factors, ecological deterioration places petty producers under an unprecedented income squeeze. As reproduction solely based on farming has almost become impracticable, the petty producer households rely on performing wage labour in the farm and non-farm sectors. However, even while faced with adversities, the petty producer households do not abandon agriculture altogether. While lack of gainful alternative employment was a major reason behind this, the working of social norms and institutions in the villages also ensures that petty production survives.

Though the nature of change in agriculture production is similar in both the study villages, the trajectory of change in the agrarian labour market varied between them. While commodification of labour smoothly proceeded in Vinayagapuram, the village of Veerasambanur had a less commoditized labour scenario. Major differences were observed in the labour process, labour relations, wage trends and even the impact of macroeconomic policies on the labour market. The study situated this differential outcome in the structure of social relations and institutions in the villages. While Veerasambanur was marked by a cultivator-labourer nexus which prevented collective action by the labourers, Vinayagapuram had a neat separation between the cultivators and the wage labourers. Even amidst differences, the gendered constitution of the agrarian labour force was a major point of similarity between the villages. It is found that women's unpaid work has a major role in sustaining the households engaged in farming. While the agrarian crisis, in general, caused men to out-migrate, the working

of the social institutions ensures that women continue to concentrate in the agriculture sector, disproportionately bearing the work burden.

The non-farm employment scenario in the study villages expanded dramatically over the period and income from this sector became a crucial part of the household income portfolio. While the traditionally dominant handloom sector lost its sheen, work under MGNREGS became the major non-farm source of employment inside the villages. Most of the men employed in the non-farm sector accessed their jobs through outmigration to cities. However, the new employment opportunities offered by the sector are strongly influenced by the institutions of class, caste and gender. While the privileged social groups made inroads into remunerative jobs, the rest of the non-farm workforce had to get satisfied with little livelihood gains. While men could reap the benefits offered by outmigration, women continued working within the village premises.

The study gives important insights into the processes of labour transformation in the Indian countryside by highlighting the distributional outcomes. Based on the case studies of two villages, it argues that the labour and employment transformation that India is currently undergoing is very much socially and ecologically embedded. Social institutions and local ecology interact with each other and work simultaneously to produce the labour market outcomes that were observed in the study villages.

❖ *Finance and Development: Examining Financial Inclusion in terms of Dimensions and Determinants*

Sandhya M. Das, 2010

Supervisors: Prof. U. S. Mishra & Dr. N. Vijayamohanan Pillai

Within the overarching motivation imparted by the 'finance and development linkages', and the recent paradigm of inclusive finance, the measurement-related aspects of financial inclusion formed the *raison d'être* for this study. The absence of systematic and comparable data on multiple dimensions of financial inclusion makes its measurement and empirical research complicated. The present study sought to develop robust, multi-dimensional measures of financial inclusion using indicators from both provider and user perspectives in the Indian context and to discern the linkages between finance and development. It also identified the determinants of financial inclusion by examining the association between select socio-economic attributes and deprivation in use of financial services by households.

In consideration of the evolving Indian financial inclusion space shaped by policies over time, based on analysis of the banking data, the study observes that, government policies have resulted in considerable progress in financial inclusion in absolute terms during the past three decades. With a three-fold and over two-fold increase in the number of deposit and credit accounts per 1000 adults respectively during 1999-2000 to 2017-18, every adult individual had more than two deposit accounts in 2017-18, while over three-fourth of the population did not use credit. The proportion of population without a formal bank account declined steadily across all states during this period, though marked by increasing spatial disparities. At the bottom were Nagaland (1003 deposit

accounts) and Manipur (76 credit accounts) while at the top were Goa (5137) and Tamil Nadu (695) respectively in 2017-18. Analysis of inclusiveness of finance, gauged by the progress in narrowing the gap from the best performing state over time, showed a mixed trend with states like Tamil Nadu and Maharashtra showing considerable improvement, nearly closing the gap and North Eastern states deteriorating with increasing distance. A matching of the quintile distribution of States for credit and deposit parameters with that of per capita income suggested that high-income states had greater penetration of formal financial services, implying a strong association between development and finance.

The multi-dimensional index of financial inclusion computed using institutional data (FII) on 12 indicators reflecting access, use and quality dimensions of deposit, credit, insurance and coverage of weaker sections during eleven time-points between 1979-80 and 2015-16, showed diverse trends at the national level. The impressive decadal increase from 1979-80 (0.38) to 1989-90 (0.58), followed by a colossal decline to 0.31 in 1999-2000 represents two major structural breaks. The period from 2004-05 to 2015-16 witnessed a staggered performance, with lower value of indices. While the massive 'branch expansion programme' and the social banking principles adopted post bank-nationalisation led to an upswing in FII, the discontinuation of these policies since 1991 caused the worst decadal decline in FII in 1999-2000. The four southern states had the highest FII throughout, whereas historically backward states like Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, Jammu & Kashmir, Rajasthan and all the North-Eastern States, were consistently poor performers. Though the access dimensions (demographic and geographic outreach and number of accounts) increased appreciably, the use and quality dimensions slackened since 2010-11, resulting in diverging access-use gap. The gains in access were therefore offset by low level of use, decimating the overall FII in varying degrees across states.

Complementing the provider perspective with the user perspective, the household-level data from IHDS-II (2011-12), hitherto unexploited in finance, was analyzed using the concepts of multiple deprivations, interdependence and specificity of combinations of indicators, across four dimensions viz., access, use, quality and barriers. Nearly half of the households were deprived of formal savings, while over three-fourth were deprived of credit, insurance and pension. Conceptualising a continuum with all possible combinations of use of these four financial services, a higher proportion of 'fully-privileged' households and a lower proportion of 'fully-deprived' households in the distribution is considered ideal for inclusion and vice-versa. One-fourth of the Indian households were fully-deprived of all four services, whereas only a meagre 1.4% were fully privileged in using all of them, with considerable inter-state and intra-state variations. Intra-state inequality in use of financial services was least in Himachal Pradesh, Kerala, Manipur, Punjab and Karnataka, as depicted by lower ratio of fully-deprived to fully-privileged households. It was highest in Gujarat, Bihar, Assam, Tamil Nadu and Jharkhand. Contrary to the results from supply perspective, Gujarat and Tamil Nadu had below-average usage index, whereas for Himachal Pradesh, Chhattisgarh, Orissa and Jammu & Kashmir, it was above-average. While 63.49% of urban households were fully-privileged, none of them were fully-deprived in access. Over a third of the rural households lacked access, while only 13% of them were fully-privileged. States

faring better in access, quality and absence of barriers fared better in usage, implying mutually reinforcing associations among dimensions, as indicated by a comparison of the four dimensional indices. The multi-dimensional index computed using household data (MDI) ranged from 0.249 in Meghalaya to 0.468 in Kerala during 2011-12. A comparison of MDI and FII illustrated that MDI possessed higher explanatory power to reveal intricate patterns of inclusion, fine-tuning the peripheral patterns emerging from FII.

To evaluate the determinants of financial inclusion, the incidence of financial exclusion in population distributions (grouped by place of residence, social group, gender, education, source of livelihood, income, use of technology and trust in financial institutions) was examined using IHDS-II dataset, applying the concept of Relative Disadvantage Index (RDI). The study unveiled that the uneducated, low income, socially backward groups and wage labourers in both rural and urban areas constituted the most vulnerable and disproportionately deprived segments as indicated by a greater share of such population sub-groups to the overall financial exclusion, in relation to their corresponding population proportion. To study the impact of multiple disadvantages experienced by households, a multivariate analysis was done with these five major determinants of financial inclusion. Of the 32 possible distributions, the worst five distributions (21.88% of population), characterised by low education, disproportionately contributed to financial exclusion (38%), with positive RDI, whereas, the best five distributions (25% of population), characterised by high income, contributed to just 7.61% of the overall financial exclusion.

To conclude, in spite of an overall improvement, the progress of financial inclusion in historically backward states remained inadequate in terms of narrowing the gap from the fast-growing, developed ones, heightening the inequality. Enhanced outreach has not necessarily ensured use of financial services. The progress in financial inclusion achieved over the years therefore appears paradoxical with polarising and debilitating growth. Social exclusion, an off-shoot of multiple deprivations in education, employment and income, tends to perpetuate financial exclusion and *vice versa*, creating a vicious circle. Therefore, inclusive policies involving education and skilling of people can propel a virtuous circle of socio-economic development through broadened investment opportunities and higher demand for finance, enabling convergence of states to maximum attainable levels of financial inclusion. Comprehending the multi-dimensionality and inter-connectedness of financial exclusion and socio-economic deprivations is essential for focused policy interventions and strategies, necessitating an integration of 'top-down' (supply-side) and 'bottom-up' (demand-side) approaches in measurement.

❖ *Role of Public Expenditure in Explaining The Economic and Social Disparities Across Indian States*

Rimon Saha, 2015, UGC Fellowship

Supervisors: Prof. U. S. Mishra & Prof. Manmohan Lal Agarwal

The thesis examines the inter-state disparities in the development outcomes and their progress towards Sustainable Development Goals (SDGs) along with investigating the relation between social expenditures and development in Indian states during

1991-2020 particularly stressing on the impact of such spending on inclusive development and development outcome. It also analyses the pattern of state spending in Human Priority Sectors (HPS) and identifies revenue resources utilised to fund such spending across high and low spending states highlighting the interaction between public borrowing and HPS spending (HPSEx). Moreover, to understand the motive behind development policy and administration of the policies towards inclusive development, we assess the influence of the political environment on state's development. Development here mainly relates to the key human development sectors namely education, health, family welfare and child nutrition and comprises of a select set of indicators representing each sector according to its relevance and data availability. Using the data for 15 major states in India, we find large inter-state disparities in terms of the development indicators and inadequate progress compared to the required progress towards realization of goals/targets conveying a possible failure as regard compliance of the states with the set SDGs given the current pace of improvement. Besides, we find substantial intra-state development disparities across the rural-urban region further dissuading the compliance with SDG. Such an observation evolves out of the verification that despite increased spending by states in these sectors there is no systematic association between HPSEx and the reduction of regional inequality or improvement in development outcomes. In assessment of such association, apart from conventional per capita expenditure, we propose an alternative in terms of the targeted per capita expenditure as these expenditures are expected to cater to certain target population rather than the whole population. While assessing the spending pattern, we find that High Spending States (HSS) are spending almost double compared to Low Spending States (LSS) with growing divergence. Probing further, we find HSS and LSS have substantial difference in the financing pattern of HPSEx, but in general they mostly utilize states' share of central revenue and non-tax receipts to fund HPSEx. However, we find that apart from state spending, the political environment also shapes state development through political ideology as we find centric and left centric states have significantly better performance in the development outcomes compared to others which reveals the significance of political factors in shaping the development of a state as formulation of public policies and its framework of implementation is largely guided by ideologies.

- ❖ *Castes and Tribes Dimension of Occupational Transformation in India: A District-Level Analysis based on Census Data*
Midhun V. P., 2008, ICSSR Fellowship
 Supervisors: Prof. S. Irudaya Rajan & Dr. N. Vijayamohanan Pillai

Structural transformation in employment is a process that involves a shift in the working force from primary to secondary and tertiary sectors. However, structural transformation is not a mechanical process. To comprehend structural transformation in employment in India, the influence of social stratification, which is manifested in terms of caste and tribe dynamics, should be considered. Therefore, this thesis investigates district-wise and individual caste/tribe-wise occupational diversification among Scheduled caste and Scheduled tribe workers across nine industrial categories of employment. The census is the only data set that provides individual caste-/tribe-level as well as district-level

employment data. Therefore, the present study is almost entirely dependent on census data. Both main and marginal workers are considered in the analysis presented in the third and fourth chapters. However, for the district-level analysis presented in chapter five and individual caste-/tribe-level analysis described in chapter six and seven, the study considered only main workers. Compared with census data from 1981 to 1991 pertaining to economic activities in the service sector, the census data from 2001 to 2011 are more specifically defined. The nine categories of individual economic activities are available in the 1991 census data. Later, the 2001 and 2011 census data include 18 and 21 categories of individual economic activities, respectively. The present study developed a comparison table of industrial categories for the last four census years of 1981, 1991, 2001, and 2011. For comparison, we grouped the 18 and 21 categories of economic activities indicated in census 2001 and 2011, respectively, into nine categories as specified in census 1991. We used the latest data for our analysis because some of the census data for Scheduled castes and tribes were released at the end of 2019.

In the beginning, this study performed a caste-/tribe-level analysis of marginal workers in the labour force in the country based on census data. The analysis indicated a noticeable increase in the number of marginal workers over the last three decades. We noticed variations in the number of marginal workers among social groups. Workers from Scheduled castes and tribes are more prone to being marginal workers compared with total workers. In general, the census from 1981 to 2011 showed a decline in the number of cultivators and an increase in the number of agricultural labourers. The share of agricultural labourers to total workers was 27% in the 1981 census, and it increased to 30% in the 2011 census. For the first time since independence, agricultural labourers have outnumbered cultivators. This is a disturbing pattern of development in India. The caste-/tribe-based analysis of the industrial classification of occupations revealed dynamism in the processes of employment shifts among different social groups in India. Employment outcomes are influenced by caste/tribe identities. The macro-level data also revealed the same findings. Although the share of agricultural labourers in employment among total workers increased from 1981 to 2011, even aggregate-level data showed a marginal decline in the share of agricultural labourers in total employment for Scheduled Castes. However, the share of Scheduled Caste workers in the construction sector increased sharply, accounting for 8%, compared with 6% for the total workforce in the 2011 census. The Scheduled Tribe labour force, even in the last decade, has been almost entirely dependent on the primary sector for their employment. The shift in employment among Scheduled Tribe workers has been insignificant over the three decades analysed in this study. However, adequate dynamism was observed even in Scheduled Tribe workers' employment within the primary sector. The aggregate level data revealed a considerable shift in employment for Scheduled Tribe workers, moving from cultivators to being agricultural labourers. The conversion of cultivators to agricultural labourers can be interpreted as a signal of some degradation in their economic condition.

The individual caste/tribe and region-wide variation in employment shift should be considered while making statements based on aggregate level data. To substantiate aggregate-level information in the regional-level analysis, the industrial classifications of employment among social groups for 170 consolidated districts were considered. We

prepared comparable units of 170 districts based on the 1991 census. In India, the number of districts has increased over time, especially in Orissa, Bihar, and Madhya Pradesh. The only practical solution was to merge newly created districts with their original constituent district(s) to study trends in employment shifts at the district level. We calculated the Shannon diversification index for 170 districts to identify employment diversification among nine industrial categories of employment for 1991 and 2011 census. On the basis of the index, the study classified districts as highly, moderately, and less diversified in employment. The pattern of employment diversification was dissimilar among social groups in these three categories of districts. A sample paired t-test was performed to determine whether occupational changes are statistically significant among social groups in 1991 and 2011 census data. In districts with highly diversified employment, the share of agricultural labour declined for all social groups with varying degrees. In 1991, we observed that 84 of 170 composite districts had at least half of the workforce of the Scheduled Caste population engaged in agriculture as wage labourers; this declined to 62 districts in 2011. However, in 1991, the Scheduled Tribe population had only 70 of 170 composite districts with at least 50% of their workforce engaged as agricultural labourers; this number increased to 78 districts in the 2011 census. As per the 2011 census data, the Scheduled Tribe population outnumbered the Scheduled Caste population in several districts with more than 50% workforce engaged in the agricultural sector as wage labourers.

The Scheduled Caste category comprises 1241 individual castes, whereas the Scheduled Tribe category comprises 705 individual tribes as per the 2011 census. Therefore, we considered individual caste/tribe variations in employment shift in disaggregated-level analysis. Our analysis included only 15 major states comprising 879 individual castes of a total of 1241 individual castes existing in the country. This study focused on 77 of 879 individual castes for the census years of 1991 and 2011. However, the individual castes considered in this study represent nearly 70% of the Scheduled Caste population in states chosen for the analysis. An individual caste-level analysis of all selected 77 individual Scheduled Castes (out of 1241) was conducted for this study except for Thoris in Rajasthan, Dobhis and Pasis in Uttar Pradesh, and Chamars and Mahars in Madhya Pradesh, who exhibited a similar trend in the employment shift, in that their share in agricultural labour has been declining with a corresponding increase in wage labour in the construction sector. The literature suggests that Scheduled Caste workers are termed as agricultural labour caste; however, the analysis showed that during the period of increasing agricultural labourers in general, Scheduled Caste workers were moving towards the modern sector as wage labourers in the construction sector. Historically rooted inequality has anchored Scheduled Caste individuals in low profile employment as wage labourers in the construction sector, thereby making it difficult for them to shift towards better employment opportunities offered by economic growth in the country after the 90s.

The study included 348 individual Scheduled Tribes of 11 states, which cover 83.1% of the total Scheduled Tribe population in the country. The employment shift among the 35 selected individual tribes (out of 705) revealed that the Scheduled Tribe workers end up as agricultural labourers, leaving their lands to work as wage labourers primarily in the agricultural sector and marginally in the construction sector. Scheduled Tribe workers traditionally engaged as cultivators, cultivating in the forest land, and increasing the

number of agricultural labourers among them indicates that the isolation of the Scheduled Tribe population is ending. This occurred at a faster rate in the decade of the latest census, and Scheduled Tribe became part of the lower strata of mainstream society in the form of casual labourers in agriculture and marginally in the construction sector as wage labourers.

Current Studies

1. Market Structure and Technological Changes in India's Fertilizer Manufacturing Industry
Ajil M., 2018- UGC JRF/SRF
Professor Sunil Mani & Dr. M. Parameswaran
2. Low-Carbon Energy Industries in India – A Study of Solar Photovoltaics and Wind turbine manufacturing Industries
Ladenla Lama, 2018- ICSSR Fellowship
Dr. Hrushikesh Mallick & Professor K.J. Joseph
3. Analysing Public Private Partnerships in Indian Infrastructure Sector
Papaiah Koppula, 2018- ICSSR Fellowship
Prof. Vinoj Abraham & Dr. Ritika Jain
4. Environmental Sustainability in India's Manufacturing Sector: An Analysis of Firm Strategy and Impact
Parijata Pradhan, 2018-UGC JRF/SRF
Dr. Hrushikesh Mallick & Professor K.J. Joseph
5. Broadband Diffusion and The Emergence and Growth of Platform Economy in India
Rajkumar Byahut, 2018-UGC JRF/SRF
Professor Sunil Mani
6. Uncertainty and Economic Activity: A Study of Indian Industry
Sandeep Pandey, 2018- ICSSR Fellowship
Dr. M. Parameswaran & Dr. Srikanta Kundu
7. Changing Dynamics of Education, Skills and Employment: Evidence from India
Shilpa Krishnan, 2018- UGC JRF/SRF
Professor U.S. Mishra
8. Credit Availability and the performance of MSME enterprises in India
Vidyarani K., 2018- ICSSR Fellowship
Dr. Hrushikesh Mallick
9. Agricultural Insurance and Farmer's Behaviour : An Analysis from the Behavioural Economics Perspective
Binod Kumar Behera; 2019 – UGC JRF/SRF
Dr. Hrushikesh Mallick & Dr.Thiagu Ranganathan

10. Analysing the Growth and Performance of Startups in India
Krishnapriya V.S.; 2019 – UGC JRF/SRF
Prof. Sunil Mani & Dr. M. Parameswaran
11. Export performance of MSMEs under Economic Reforms In India
Rahees K.A.; 2019- ICSSR
Prof. Beena P. L.
12. Globalization and Income Concentration in BRICS: The Role of Technological Progress
Sanjay Kumar Rout; 2019 – UGC JRF/SRF
Dr. Hrushikesh Mallick
13. Public Infrastructure, Agricultural Productivity and Denting on Poverty in India: A spatial group analysis
Vaidik Chakraborty; 2019 – UGC JRF/SRF
Dr. Hrushikesh Mallick
14. Women’s Work and Agency in Low-Income Localities of Urban India
Annesha Mukherjee; Integrated MPhil/PhD 2018- UGC JRF/SRF
Prof. Praveena Kodoth & Prof. Vinoj Abraham
15. **Analysis of Non-Farm Self-Employment in the context of Economic Development in India**
Basit Abdullah; Integrated MPhil/PhD 2018- UGC JRF/SRF
Prof. Vinoj Abraham & Dr. Ritika Jain
16. Parental Involvement, Aspiration, and Learning Outcomes of the Children: A Study in Rural Odisha
Rajalaxmi Singh; Integrated MPhil/PhD 2018- UGC JRF/SRF
Dr. Thiagu Ranganathan
17. Impact of International Migration on International Trade; An Empirical Analysis for India
Sabeer V.C.; Integrated MPhil/PhD 2018- UGC JRF/SRF
Dr. M. Parameswaran
18. Health behaviours, health seeking behaviours and health insurance behaviours
Swathi Krishna K.U.; Integrated MPhil/PhD 2018- UGC JRF/SRF
Prof. Beena P. L.
19. Empirical Analysis of Subnational Borrowing: A Study on Major Indian State
Ashrafal Khalq; Integrated MPhil/PhD 2018- UGC JRF/SRF
Dr. Hrushikesh Mallick
20. Employability Discourse, Higher Education and Skill Development: A Case Study of Organised Retail Sector in India
Vishnu K. Venugopal; Integrated MPhil/PhD 2018- UGC JRF/SRF
Prof. Vinoj Abraham

21. The Idea Of Castelessness In India
Aishwarya Prakash; Integrated MPhil/PhD 2018- UGC JRF/SRF
Prof. Vinoj Abraham & Dr. Thiagu Ranganathan
22. The Political Economy of Forest Property Rights
Rahul Kamal; Integrated MPhil/PhD 2018- UGC JRF/SRF
Dr. Thiagu Ranganathan & Dr. Tirtha Chatterjee
23. On Women's Empowerment and Son Preference in India: Three Essays
Amresh Senapati, 2020 - UGC Fellowship
Prof. Vinoj Abraham
24. Indian Business Groups: Structure, Innovation and Economic Development
Ashish Biswas, 2020 - UGC Fellowship
Prof. P. L. Beena
25. Uncertainties, Investor Attention and Sentiment; A Study on Indian Stock Market
Devika Dileepkumar, 2020 - GoK for SC
#Dr. Srikanta Kundu
26. Equality of opportunity and unfair inequality in India
Gayathri P., 2020 - UGC Fellowship
Dr. Thiagu Ranganathan & Dr. Srikanta Kundu
27. Millet Production and Rural Livelihoods: A Study of Rainfed Districts in India
Himansu Sekhar Thapa, 2020 - NFOBC
Dr. Thiagu Ranganathan
28. Diversification Opportunities and Expected shortfall of India's Commodity Market
Rhythm Sparsh Narayan, 2020 - UGC Fellowship
Dr. Srikanta Kundu
29. Women's Empowerment and Household Food Security
Shakuntala Ghadai, 2020 - NFSC
Dr. Thiagu Ranganathan & Dr. Tirtha Chatterjee
30. The Making of the Software Product: A Study on Consent, control, and Responses of the Employees in the Indian Software Industry
Shonima Nelliath, 2020 - UGC Fellowship
Prof. Vinoj Abraham
31. An Analysis of Stability of Employment and Wage in India and their Determinants
Sita Majhi, 2020 - UGC Fellowship
Prof. Vinoj Abraham

32. Women's networks and employment: How women acquire social capital and how they put them to use
Srimanjori Guha, 2020 – UGC Fellowship
 # Prof. Praveena Kodoth & Dr. Ritika Jain

Topics of the following students are yet to decide

1. **Suaid Ahmad Rather**; Integrated MPhil/PhD 2018- UGC JRF/SRF
 # Dr. Thiagu Ranganathan & Dr. Srikanta Kundu
2. **Abhinav Surya L. T.**; 2021 – UGC JRF/SRF
 # Prof. Beena P. L.
3. **Mayur Jeevan Kamble**; 2021
 # Dr. Hrushikesh Mallick
4. **Mohammed Anfas K.**; 2021 – UGC JRF/SRF
 # Prof. Vinoj Abraham
5. **Richa Baruah**; 2021 – UGC JRF/SRF
 # Prof. Vinoj Abraham
6. **Sachin Varghese Titty**; 2021
 # Prof. Beena P. L.

Topics and supervisors of the following students are yet to be decided

1. **Vishnu Ravi**; Integrated MPhil/PhD 2018
2. **Ahsana**; 2022- UGC JRF
3. **Anna Maria Abraham**; 2022
4. **Ayana Krishna D.** ; 2022- UGC JRF
5. **Jayalakshmi T. A.**; 2022
6. **Kalayath Mohamed Shemil**; 2022- UGC JRF
7. **Pawan Kumar**; 2022- UGC JRF
8. **Sangeetha Kethapaka**; 2022
9. **Shabnam T. P.**; 2022- UGC JRF

Re-Registered for submission

1. Direct Corporate Taxation and its Effects on Financial Behavior of Indian Firms after the Macroeconomic Reforms of 1991
Amit Nandan, 2018- UGC Fellowship
 # Dr. Hrushikesh Mallick & Dr. Ritika Jain

2. Social Exclusion and Its Impact among the Older Persons: Experiences from Tamil Nadu
Maheshkumar T., 2017- ICSSR Fellowship
Dr. Abhilash T. & Prof. (Rtd.) S. Irudaya Rajan
3. Caste and Economic Mobility in India: With Special Reference to Kerala and Tamil Nadu
Libitha C., 2014- GoK Fellowship
Prof. Vinoj Abraham
4. **Interstate Labour Migration in India: A Comparative study of Gujarat and Kerala as Destination States**
Madhusudan Nag, 2016
Dr. Hrushikesh Mallick & Prof. (Rtd.) S. Irudaya Rajan

(b) MPhil PROGRAMME IN APPLIED ECONOMICS

The CDS has been offering its MPhil Programme in Applied Economics from 1975. This 4-semester Programme is affiliated to the Jawaharlal Nehru University, New Delhi and allows students with a Master's degree in any discipline. The focus on applied economics from a plural perspective and adaptation of effective learning tools adds to the uniqueness of the programme which has attracted nation-wide attention. 435 students from the 45 batches have been awarded the MPhil Degree. In line with the decision of National Education Policy 2020, JNU-CDS CD decided to discontinue the MPhil course from the academic year (2020-21).

Dissertation submission details of 2018 & 2019 admissions are listed at the end of this section.

12 students of the 2018 Integrated MPhil/PhD batch submitted their dissertations and 11 of them have joined the PhD programme at CDS.

Among 2019-21 terminal MPhil batch, all the 6 students submitted dissertations.

Dissertations of Integrated MPhil/PhD Programme 2018

- ❖ *Revisiting urbanisation in India: Examining mobility and quality across size classes*
Annesha Mukherjee
Supervisor: Dr. M. Parameswaran
- ❖ *An analysis of labour market and unemployment among youth in India*
Basit Abdullah
Supervisors: Prof. Vinoj Abraham & Dr. Ritika Jain
- ❖ *Understanding the financial inclusion in India: A micro level analysis*
Rajalaxmi Singh
Supervisor: Dr. Hrushikesh Mallick

- ❖ *Deglobalisation at global and revival of non-market reliance at local: A regional perspective from Kerala in the context of return emigration*
Sabeer V.C.
Supervisor: Prof. S. Irudaya Rajan
- ❖ *Labour market fragmentation and surplus extraction: The Indian case*
Satyaki Dasgupta
Supervisors: Prof. Vinoj Abraham & Prof. U. S. Mishra
- ❖ *Livelihood issues of farmers and the role of farmer producer companies: Case studies from eastern Uttar Pradesh*
Aishwarya Prakash
Supervisors: Dr. P. L. Beena & Dr. Dr. Tirtha Chatterjee
- ❖ *An impact assessment of financial incentive schemes for the girl child in India*
Rahul Kamal
Supervisors: Prof. U. S. Mishra & Dr. Ritika Jain
- ❖ *Impact and determinants of out of pocket health care expenditure in Kerala*
Swathi Krishna
Supervisor: Prof. U. S. Mishra
- ❖ *Casualization of academic labour: A study of arts and science colleges in Kerala*
Vishnu K. Venugopal
Supervisor: Prof. Vinoj Abraham
- ❖ *A comparative study of local fiscal performances in two decentralized southern states of India: experience of Kerala and Karnataka*
Ashraful Khalq
Supervisor: Dr. Hrushikesh Mallick
- ❖ *Impact of oil price shocks on Indian industries*
Suaid Ahmad Rather
Supervisor: Dr. M. Parameswaran
- ❖ *Changes in occupational structure and responses of different social groups: Study in Vizhinjam village*
Vishnu Ravi
Supervisor: Prof. J. Devika

Dissertations of MPhil Programme 2019-21

- *Evaluating the inflation targeting regime in India*
Rahul Ranjan
Supervisors: Dr. Hrushikesh Mallick & Dr. Thiagu Ranganathan

- *An analysis of the vegetable oil sector: A few selected issues in trade and production patterns*
Sam Benny
Supervisor: Dr. Chidambaran G. Iyer
- *Impact of interest subvention scheme (iss) on farm households: a case of Andhra Pradesh and Madhya Pradesh*
Shubham Kumar Sehgal
Supervisors: Dr. Tirtha Chatterjee & Dr. Thiagu Ranganathan
- *Profitability and productivity of irrigation in semi-arid tropics of India*
Likhitha Tirunagari
Supervisor: Dr. Thiagu Ranganathan
- *Role of ict in food processing industry: Evidence from India*
Subal Danta
Supervisors: Dr. Chidambaran G. Iyer & Dr. Tirtha Chatterjee
- *An empirical investigation on the problem of aggregate demand in the Indian economy*
Bhagat Umesh Rambhau
Supervisors: Dr. Hrushikesh Mallick & Dr. Chidambaran G. Iyer

(c) M.A. IN APPLIED ECONOMICS

MA (Applied Economics) in CDS is a unique master's programme in economics that aims at providing rigorous training in theory, tools and methods for applied economic analysis, with a special focus on issues of economic development. The degree is awarded by Jawaharlal Nehru University (New Delhi).

2022 MA Admission

For students from India

- 583 Applications were received.
Out of the 583 candidates, 11 opted Guwahati, 17 opted Hyderabad, 131 opted Kolkata, 89 opted Kozhikode, 176 opted New Delhi, 46 opted Pune and 113 opted Thiruvananthapuram as their centre for Entrance Test.
- Entrance test was conducted from 10.00 am to 12.00 noon on Sunday, July 31, 2022. The test centres were Indian Statistical Institute in Kolkata, IIT Guwahati in Guwahati, Centre for Economic and Social Studies (CESS) in Hyderabad, Malabar Christian College in Kozhikode, School of International Studies (SIS) in JNU, New Delhi, **Gokhale Institute of Politics and Economics in Pune** and Govt. SMV HSS in Thiruvananthapuram
- 377 Candidates out of 583 applicants appeared for the entrance test.
- Selection was based only on the score of the entrance test.
- 24 students joined the programme.

For students from SAARC Countries

One application was received for MA Applied Economics Programme. The Committee interviewed the candidate and selected Mr. Sonu Chaudhary from Nepal for admission. Later he discontinued from the programme.

MA 2020 Batch

Degree awarded from JNU

MA 2021 Batch

4th Semester classes started on 3rd January 2023.

MA 2022 Batch

2nd Semester classes started on 1st March 2023

Project Topics of MA Programme- 2021 batch AE 208: project

SI No	Name	Project Title
1	Aarushi Sharma	Relationship between public expenditure and economic growth- a comparative analysis across indian states
2	Aavani R.	Trends and Patterns of Women Entrepreneurship- A comparison of Tamil Nadu with all India
3	Akanksha Sinha	Economic Reforms and Manufacturing Trade Deficit in India
4	Aman Kumar	Impact of rainfall on Rice Yield: Evidence from BIMARU states
5	Ambalika Ghosh	Investigating low labour force participation rate of women in India - A study based on social norms and patriarchy.
6	Amrita Basu	Determinants of labour share of income in Indian Manufacturing Industries.
7	Atulya Sinha	Does access to Liquefied Petroleum Gas (LPG) change women's time allocation? Evidence from time use survey.
8	Bhatraju Jithin Sree	Negative Rainfall shock and agricultural productivity
9	Biswadeb Bose	Impact of Migration on Household Employment in Rural India during the initial phases of Covid-19
10	Krishnageethy N.S.	Integrating CSR and SDGs: A Missed Opportunity?

11	Mathew Hongchui	Unpacking the key determinants of FinTech performance in India
12	Muhammed Fazal C. P.	The Analysis of the performance of Mid-Cap mutual funds pre and post-Lockdown period using asset pricing models
13	Niranjana S. Suresh	A Study on Bonded Labour and Paniya Community
14	Prasad AshokraoSarnaik	Impact of Liquidity on Profitability of Indian Commercial Banks: A Panel Data Analysis
15	Riya Regmi	Impact of Remittances on Poverty and Inequality
16	Rohan Pradeep Londhe	Diverging Trajectories of Tourism: Cases of Lakshadweep & Maldives.
17	Rohit Kumar Sah	No Job, No School: The Connection Between Household Job Loss and Children's Dropout
18	Shreya Chakraborty	Impact of FIIs on return and volatility of Socially Responsible Investing (SRIs) in India: A regime switching analysis.
19	SwagataMajumder	Impact of Bribery on Export Performance of Indian Manufacturing Sector.
20	Thati Ganga Viswakanth	Effects of Public Debt on Economic Growth: A comparative analysis for Southern Indian States

Certificate Course offered

Name of Course	Instructor	Course offered to
Financial Econometrics	Dr. Srikanta Kundu	MA 2021
Data Analysis and R Software	Dr. M. Parameswaran	MA 2021

Statement for MA & PhD Programmes during the period 2022-23

Year	Course	Number of students applied	Number of students admitted	Number of students awarded
2022-23	MA	584	24	24
	PhD	110	8	6
	Total	694	32	30

(d) Short Term Training Programmes

- 1) Norwegian Training Programme on "State and Civil Society in Development and Environmental Governance in India" coordinated by Dr. M. Parameswaran (30th Aug to 3rd Sep, 2022)
- 2) ICSSR Sponsored "Workshop on Information Communication Technologies and Economics," coordinated by Dr. Chidambaran G. Iyer (7th to 18th Nov, 2022)

- 3) Workshop on “Methods and Approaches to Research on Migration,” coordinated by Professor Praveena Kodoth (16th to 20th Jan, 2023)
- 4) “Teaching Innovations Programme in Economics” (TIPE-2023) coordinated by Dr. Vinoj Abraham, Professor, CDS held from (20th Feb to Mar 3rd, 2023)

(e) Research Affiliation

Mr. Siddharth Menon, Ph.D Research Scholar at University of Wisconsin-Madison was granted research affiliation at the Centre for Development Studies for his research work on “(De) Constructing Concrete: Capital, Nature, and Infrastructures in Urbanizing India”. Mr. Siddharth Menon’s work will be guided by Professor J. Devika. The proposed period of affiliation is for a period of one year from 12th August, 2022 to 11th August, 2023.

Mr. Nikas Schedit, Ph. D Research and Teaching Assistant at Karlsruhe Institute of Technology, Germany has been granted affiliation at the Centre for Development Studies for his research work on “Clean Energy Technologies-Clarification and International Environmental Cooperation”. Mr. Nikas Schedit’s work will be guided by Professor Sunil Mani, Director and Professor, RBI Chair, CDS. The proposed period of affiliation is from 12th Sept, 2022 to 23rd Sept, 2022

Under the Catchain project, the following four researchers from Europe have been hosted at the Centre.

Prof. Cipriano Quiros Romero

Researcher at Universidad Complutense de Madrid(ICEI)
Title: Catching-up along the Global Value Chain: models, determinants and policy implications in the era of the Fourth Industrial Revolution.

Prof. Angel Eduardo Valarezo Unda

Researcher at Universidad Complutense de Madrid(ICEI)
Title: Catching-up along the Global Value Chain: models, determinants and policy implications in the era of the Fourth Industrial Revolution

They both have joined on 01/09/2022 for one month ending on 30/09/2022

Ms. Ülly Enn, PhD candidate at the Tallinn University of Technology (TalTech)

She is also working as Director of International Cooperation in the Ministry of Education and Research in Estonia. Her ongoing case study research focuses on the role and practices of learning communities from the perspective of the educational commons.

Dr. Marek Tiits, Senior research fellow, Department of Business Administration, Tallinn University of Technology - TalTech

Dr. Marek Tiits is focusing on academic research that uses various data science methods and tools for informing export-led catching-up strategy.

They both have joined on February 16th, 2023 and the affiliation is for a period of 3 months.

5

ENDOWMENTS

Planning Commission Endowment in Development Economics

Planning Commission Endowment in Development Economics was established in 1998. On evaluation of the activities of the Unit, the Planning Commission recognised the Unit as the one working on issues relating to technology and innovation in the Indian context. Professor Praveena Kodoth is the Chair Professor. As in the previous years, this year the unit mainly focussed on issues concerning migration within and across the country, including a special focus on women, children while also examining micro level socio economic implications of international and internal migration. The importance of child care as a constraint on women's employment and significance of dowry in contemporary Kerala was also a point of focus.

A five day workshop on Methods and Approaches to Research on Migration organised at CDS between January 16 and 20, 2023 for research scholars and young professionals from across the country.

During this period the unit completed a study on 'Evidence Generation on Child Migration: A State Level Study of Tamil Nadu and Kerala' Sponsored by UNESCO, Chennai. This study seeks to generate

evidence of the extent and character of child migrants and the nature and extent of their deprivations in order to make a strong case for a definitive policy to address the deprivations and disenfranchisement of child migrants. The study conducted in Tamil Nadu and Kerala, states that are at the forefront of growth in internal labour migration and pioneers in designing social protection measures for inter-state migrant workers.

The unit completed a paper Dowry in Contemporary India in P. Bilimoria, Sharma R. and Rayner A. eds. Handbook of Indian Ethics: Gender, Justice, Ecology, New Delhi: Routledge.

One research project is ongoing under the unit, Child care and educated women's labour market behaviour: Evidence from Kerala, Sponsored by MIT - JPAL, USA. The study seeks to develop a proposal to explore the effects of child care responsibility on higher educated women's labour market behaviour in Kerala which could lead to a child care intervention. With the relatively large base of women with higher education not translating into correspondingly high levels of employment and with a continued emphasis on domesticity co-existing with high unemployment rates, Kerala presents a site for a unique case study of women's labour market behaviour.

Presentations in two International Seminars during this period, (i) 'Session on Women migrant workers: Livelihood challenges and state response' at the Bandung conference between November 8 and 11(Online), (ii) 'Informal intermediation of women's migration as domestic workers to the Gulf under the present policy regime and its effects on the labour market', in Conference on Vital yet Vulnerable: Protecting Indian workers in the Gulf, Jan 31 and Feb 1, 2023.

National Seminar presentations included (i) 'Migrant Domestic Workers from India and the Labour Market in the Middle East', Plenary address at the two day UGC sponsored National Conference on Challenges to the Indian economy and sustainable development conducted by Department of Economics and Dr Ambedkar Study Centre, Avinashilingam Institute for Home Science and Higher Education for Women, February 2 and 3, 2023. (ii) 'Dowry in Contemporary India' at the IAWS southern regional conference on State, Market and Judiciary in South India: Current Policies in an intersectional perspective, in Trichy, July 9 and 10, 2022, (iii) 'Migrant children's access to Public services in Tamil Nadu and Kerala', Round Table on State-led Migration Initiatives for Families and Children, Centre for Policy research and UNICEF, India on December 9, 2022. (iv) 'Governing women's mobility under a 'safe migration regime'', Kerala in the World Economy Seminar, CDS, February 8-10, 2023.

The unit also contributed to the teaching and supervision at all the three academic programmes, various training programmes and workshops held at the Centre etc.

Reserve Bank of India Endowment Unit on Economic Development

The Reserve Bank of India instituted the endowment scheme in 1976 with annual grants for research in Economics and allied subjects. In March 2002, the Bank replaced the scheme with a one-time Corpus Fund of Rs.150.00 lakh for the purpose of research and for higher levels of learning in finance, banking, economics and related areas. On account of the changes in interest rates, inflation and implementation of sixth UGC pay revision, the Bank enhanced the Corpus to Rs.400.00 lakh. Prof. Sunil Mani is the Chair Professor of the Unit.

Research Projects Completed

1.1 Innovation performance of two high-technologies industries from India, A comparative analysis of India's Pharmaceutical industry vis-a-her computer software services industry

The high technology exports from India have been growing and are almost entirely contributed by two industries: pharmaceutical and computer software. While both these industries have achieved considerable international acclaim, their growth performance so far has been primarily thought of as driven by labour arbitrage than by innovation efforts. This is especially so in the case of the software industry, where replication rather than innovation has been identified as the cause for its fast export growth. The paper assesses this by tracing the performance of the two industries from the point of innovation using several metrics available in the literature for measuring innovation. The subsequent analysis shows that the number of innovations in both industries is rising. It is contributed chiefly by domestic firms

in the pharmaceutical sector and foreign firms in the case of the computer software services industry.

1.2 Make in Kerala, Towards identification of products that are amenable for domestic manufacturing

This paper aims to identify a set of products which Kerala is currently importing from the rest of India and the world and which, given its importance for domestic consumption, can be manufactured within the state. The study accomplishes this by analysing Kerala's trade with the rest of India and the world using the newly available E-Way bills data. The study period is from 2018-19 to 2021-22. Employing two-pronged criteria of competitiveness and its importance for domestic consumption, the study has identified products that may be manufactured domestically. As part of this exercise, the study also estimates Kerala's balance of trade and also the technical composition of its trade.

Ongoing projects

Automation and Employment, Analysis of the employment implications of multipurpose industrial robots and AI in Asian manufacturing

The paper analyses the employment implications of two Industry 4.0 technologies that are predicted to have significant labour market implications. The study will consider the employment implications of robotics and AI. While robotics may affect only routine jobs that rely on non-cognitive skills, generative AI can automate non-routine tasks that require cognitive skills. The challenge for policymakers is to foster progress and innovation in AI while shielding workers and consumers from potential types of harm that could arise. The study will analyse the generation of these new technologies in terms of the counts

of scientific publications and patents. It will critically assess its labour market implications regarding jobs destroyed and new jobs created or expected to be created. The analysis of industrial robots will be based on a unique database that tracks its diffusion across industries and tasks within sectors in a range of Asian countries that are relatively strong in manufacturing. The discussion of AI, on the contrary, is based on an engagement with the emerging literature on this issue.

New Initiatives

Green Technology Innovations in India, An analysis of its sectoral system of innovation

At the 26th session of the Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC), India expressed to intensify its climate action by presenting to the world five nectar elements (Panchamrit) of the country's climate action. The update is also a step towards achieving the country's long-term goal of reaching net zero by 2070. Earlier in 2015, India submitted its Intended Nationally Determined Contribution (NDC) to UNFCCC. The 2015 NDC comprised eight goals; three of these have quantitative targets upto 2030 namely, cumulative electric power installed capacity from non-fossil sources to reach 40%; reduction of the emissions intensity of GDP by 33 to 35 per cent compared to 2005 levels and creation of additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover. As can be seen, the actual achievement of these laudable targets crucially depends on innovations in green energy and the increased diffusion of green transportation consisting of a significant switch over to Electric Vehicles (EVs) from those based on Internal Combustion Engines. Over the years, India has set up an elaborate set of policies and institutions to

develop locally the technologies that are required for the production of green energy from solar, wind, small hydro and biomass and also the development of EVs. An interesting aspect of green innovations in India is the fact that both the state and markets have played an equal role in generating and diffusing green innovations. A sectoral system of innovation has got articulated with all its building blocks like key actors and institutions, technology domain and demand receiving an impetus from both the government and the private sector industry. In this context, the purpose of the proposed study is to survey and evaluate the generation and diffusion of innovations in green energy sources (read as solar and wind) and EVs in the country.

The study is proposed to be structured into three sections. In the first section, we will map out the production of green energy and EVs in the country. As of now, approximately a quarter of the installed capacity for electricity in the country is from green sources (Table 1). Within green sources, two technologies stand out namely solar and wind. Production and sale of EVs in the country has been increasing rapidly although much of the sales is in scooters, bikes and three wheelers (Figure 1). Range anxiety and EV prices are the two most hindering factors to a faster diffusion. This calls for improvements in the battery technology and charging stations. The second section analyses three green innovations in terms of detailed patent analysis. We analyse both the patents issued by the Indian Patent Office and also unique Indian patents in green technologies from the Derwent Patent Index. The third section will undertake a detailed analysis of the building blocks of the sector in terms of national and international policies aiding in the creation and diffusion of green innovations, R&D by both public research institutes and in-house R&D centres in private sector firms and the demand for green technologies which in some cases like EVs too are created and aided by regulatory policies and financial subsidies provided by the state. Green energy sources covered in the study include both solar and wind and EVs cover passenger cars, three-wheelers (auto rickshaws or Tuk-Tuks) and two-wheelers (electric scooters and motorbikes) and battery technology.

Table 1: Installed Capacity in Green Energy in India as on March 31, 2021

Green Energy Sources	Installed Capacity in GW	Share (%)
Small Hydro Power	4.75	5
Wind Power	38.62	42
BM Power/Cogen	10.15	11
Waste to Energy	0.17	0
Solar Power	37.46	41
Total Green Energy	91.15	100
Total installed capacity from all sources	375.32	
Share of green energy (%)		24.29

Source: Ministry of Power, Government of India

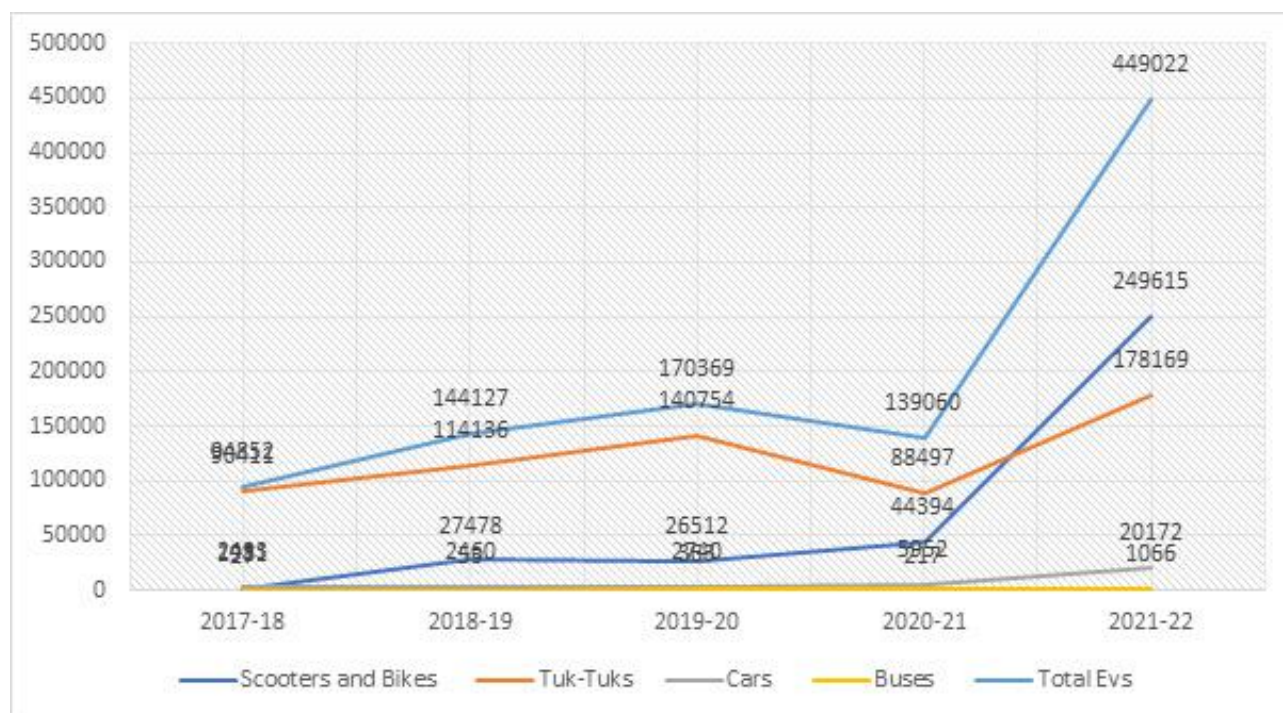


Figure 1: Trends in sales of EVs in India (in numbers)

Source: Society of Manufacturers of Electric Vehicles, <https://www.smev.in/statistics>

Publications during 2022-23

- Mani, Sunil (2022), 'The Role of Industrial Policy in Market-friendly Economies Case of COVID-19 Vaccine R&D and Its Manufacturing in India and Its Contrast with the US – II', *Economic and Political Weekly*, Vol.57, No:48, pp.51-58
- Mani, Sunil, V K Dadhwal, C.S. Shaijumon (2022), 'India's Space Economy, 2011-12 to 2020-21: Its Size and Structure', *Space Policy*.
- Mani, Sunil (2022), 'The Role of Industrial Policy in Market-friendly Economies: Case of COVID-19 Vaccine R&D and Its Manufacturing in India and the US – I', *Economic and Political Weekly*, Vol.57, No:39, pp.47-53
- Mani, Sunil and Chidambaran G. Iyer (2022): Diffusion of digital payments in India, 2011-2012 through 2020-2021: role of its sectoral system of innovation, *Asian Journal of Technology Innovation*, DOI: 10.1080/19761597.2022.2125883

Research Unit on Local Self Governments (RULSG)

Webinar on “Building Back Better: How and For Whom? Everyday Politics of Post-Disaster Recovery in Puthenvelikkara” Dr. Anamika Ajay & Ms. Arathi MR on August 1st, 2022 at 2:30 pm

Programme Advisory Committee Meeting of RULSG held on August 24th, 2022, 2:00 p.m.

Presentation based on the work included in the CDS RULSG short monograph series on Ecological Challenges and LSG Responses, as part of the session on Local Government in the ICSSR two-day conference at CDS (28-30 November 2022, Session 5) titled ‘Lessons from Jalasamrudhi: Limits to Integrating environmental sustainability objectives in local governance’, by Gautam Ganapathy.

Seminar on “State of Kerala’s State Finances” - Kerala Sasthra Sahithya Parishad & Centre for Development Studies on 2022 December 5,6,7.

Webinar on Panel discussion on draft policy advocacy note: Rehabilitation of Displaced Coastal People in the Thiruvananthapuram District, March 30, Thursday, CDS 11 A M -- 1: 30 PM

RULSG Publications

Empowering Forest-Fringe Panchayats: A Policy Reflection on the Solution to the Shrinking Human-Wildlife Interface in Kerala, April 2022

Anamika Ajay and Arathy MR, ‘How and For Whom? Everyday Politics of Post-Flood Recovery in Puthenvelikkara, RULSG Series Ecological Challenges and Local Government Responses No. 3, Centre for Development Studies: Thiruvananthapuram, 2022.

Gautam Ganapathy and C S Salil, Bureaucracy, Sustainable Development and Decentralization : Reflections on Jalasamrudhi, a Community-based Water Conservation Programme in Kerala, Gautam Ganapathy and Salil C S, CDS Monograph Series No.5, Ecological Challenges And Local Self-Government Responses, 2023.

National Research Programme on Plantation Development (NRPPD)

NRPPD at CDS undertakes policy-oriented research and on all aspects of India’s plantation sector. The programme was set up in 2009 supported by a generous endowment of Rs 5 crores, provided by the Ministry of Commerce, Government of India.

The programme works under the overall guidance of a Steering Committee chaired by the Chairman, CDS and a Research Advisory Committee (RAC), chaired by the Director, CDS. The activities of the programme is coordinated by Prof. Vinoj Abraham.

During more than a decade of its existence the programme had successfully generated a rich volume of research on the plantation sector. Its research has evinced much interest among policy makers and academics alike. A large number of public documents are produced by NRPPD. All these documents are available in the publication page of NRPPD <https://cds.edu/endowments/nrppd/nrppd-publications/>

A. During the year 2022-23 the following activities were undertaken/completed by NRPPD

1. Policy Briefs

A series on research abstract for policy making is now published quarterly. This is available online now at <https://cds.edu/endowments/nrppd/nrppd-research-brief/>

The following editions were produced during the reporting year

1. January-March 2023

2. October-December 2022

3. April -June 2022

2. Webinar

A webinar series was initiated during 2021-22. The following online lecture was conducted during the year. The youtube links of these lectures are available at <https://cds.edu/endowments/nrppd/nrppdwebinars/>

Webinar Series: 05 3 June , 2022, Value Chain Conundrum in the Indian Tea Economy: A Historical Perspective, Dr. Thiagu Ranganathan, Dr. Tirtha Chatterjee and Rucha Takle. Moderated by Dr. K Ravi Raman, Expert Member, Kerala State Planning Board

3. Publication

Thiagu Ranganathan , Tirtha Chatterjee , Rucha Takle (2022) Value Chain Configuration in the Indian Tea Economy: A Historical Perspective, CDS Working Paper 509, <https://cds.edu/wp-content/uploads/WP-509-DrThiagu.pdf>.

4. Presentations

Exclusionary Spaces In Collectives - The Case Of Rubber Producer Societies In Kerala, India, Vinoj Abraham & Jerin C Jose, , Farmers' Organization and Sustainable Development (Online), Asia Development Bank Institute Conference, 7-9 September 2022.

B. Progress on works initiated in the past years

1. A compendium on socio-economic conditions relating to the four plantation crops: Based on the decision in the 10th Meeting of the NRPPD Steering Committee work was initiated for the publishing a compendium on the plantation crops Tea, Coffee, Rubber and Spices. The compendium would have 12 papers from these themes. The volume is in the process of acceptance by a publisher.
2. An online database for the NRPPD: The steering committee had decided for NRPPD to create an online database relevant for plantation studies. A Delhi based agency is now engaged to this work along with CDS. The work is progressing well. We are in the process of uploading the relevant data relating to production, yield and input use for Tea, Rubber, Coffee and Spices from various sources.
3. Study on RPS: A study on performance on Rubber Producer Studies is underway. This study is near completion. The data collection, cleaning and analysis is complete. The report is being prepared. The study would be disseminated through open seminars and working papers of CDS.

4. Study on FPOs: A study on Performance of Farmer producer organisations in Coffee is underway. This study is near completion. Data cleaning is underway. Analysis and report preparation is to be completed.
5. Study on SHGs: A study on the performance of SHGs in the tea sector is underway. The study looks into the role of SHGs in improving the performance of tea. Data collection is completed. Data feeding, cleaning, analysis and report preparation would be completed in the course of the year.

Dissemination and outreach: A twitter account and facebook page is active. All activities of NRPPD are now informed via email to a curated mailing list of 600 emails, including the Plantation Division, Ministry of Commerce, the Commodity Boards, academics, policy makers, NGOs and others interested.

Research Unit on International Migration from Kerala

The Research Programme on International Migration from Kerala was established at the Centre in 2020-21 by the Government of Kerala to support informed policy-making in the broad area of international migration from Kerala. The programme is the offshoot of an earlier endowment at the Centre by the name 'Kerala and the World Economy'. According to the Memorandum of Understanding signed between the Government of Kerala and the CDS in December 2020, CDS was expected to do four different types of activities every year based on the interest income of the endowment. The four activities are:

1. Conduct research Studies on topics required by the government and indicated to CDS through the steering committee.
2. The organisation of an annual training programme on migration research
3. Creation and maintenance of a database on international migration based on data collected under successive editions of the Kerala Migration Survey
4. An Annual conference on 'Kerala and the World Economy

Professor Sunil Mani, the Director, is the coordinator of the programme. The activities of the programme are monitored by an advisory committee consisting of representatives of NORKA and migration research experts, both external and internal.

This write-up surveys the activities of the programme during 2022-23

1. Research Studies undertaken during 2022-23
 - i. Socio-Economic Impact of Migration at the local level: Report of the Kadakavoor Village census study

(Praveena Kodoth, Vinoj Abraham and M Parameswaran)

Abstract: This report is in two parts. Part 1 is an analysis of the decadal Censuses of Kadakavoor since 1961. Part 2 is an analysis of a Census conducted in 2021 to understand in particular the ongoing transformation in international migration and, in particular, how the COVID-19 pandemic affected onward and return migration, as well as how migration status may have mediated the impact of the COVID-19 pandemic on employment in households. In addition to

this, being a Census, we have generated data on the social and demographic profile of household members and the spatial distribution of migrants according to social/religious groups, which could be significant in understanding the uneven impact of migration.

Status: The study is ongoing and is expected to be completed soon. But an interim report of the study has since been completed.

At the behest of the Minister of Finance, Government of Kerala, the programme has conducted the following studies.

ii. Make in Kerala (Sunil Mani, M Parameswaran and K N Harilal)

Abstract: This paper aims to identify a set of products which Kerala is currently importing from the rest of India and the world and which, given its importance for domestic consumption, can be manufactured within the state. The study accomplishes this by analysing Kerala's trade with the rest of India and the world using the newly available E-Way bills data. The study period is from 2018-19 to 2021-22. Employing two-pronged criteria of competitiveness and its importance for domestic consumption, the study has identified products that may be manufactured domestically. As part of this exercise, the study also estimates Kerala's balance of trade and also the technical composition of its trade.

Status: The report has been completed and submitted to the Minister for Finance, Government of Kerala.

iii. Return migration, Unemployment and the potential for labour collectives (Vinoj Abraham)

Abstract: One of the ways to integrate the return migrants could be by collectivising them as workers. Kerala has seen the growth and expansion of several collective efforts

such as the MILMA, KUDUMBASREE, etc. Among worker collectives, the most famous is ULCCS Ltd that has grown into a significant presence in Kerala. Apart from the job security that ULCCS and similar collectives provide, they would also provide the primary social cover required for a decent living.

The proposed study has the following objectives:

- To analyse the profile of return migration to Kerala, focusing on attributes such as skills, experience
- To understand the opportunities and threats for return migrants as workers placed in Kerala
- To understand the successes and failures in the trajectory of worker's collectives in Kerala
- To explore the possibilities and suggest policy directions towards re-Integration of return migrants, primarily through worker's collectives.

Status: The study has since been completed, and the report has been submitted to the Minister for Finance, Government of Kerala

II. Database on International Migration

A searchable database on international migration is being created. This database will contain data (only summary tables) from CDS's five Kerala Migration Surveys from 1998 through 2018. The database is ready and will soon be uploaded to the CDS website and will be freely accessible to anyone. The data are available in MS-excel format, and there is also a facility for visualising the data.

III. Training programmes on migration research

This week-long training programme is targeted at young researchers on topics, methods, and approaches to migration research. The first workshop was conducted from August 9 through 13, 2021, and the second was organised from January 16 through 20, 2023. The second workshop attracted 28 participants, mostly PhD scholars from universities and research institutes nationwide.

IV. Annual Conference on Kerala and the World Economy

Three such conferences have been conducted since the unit's inception, leading on each occasion to an edited volume containing selected papers presented at e-conference. Two such books have been published; the third is in the offing. The fourth in the series was conducted from February 8 to 10, 2023, and it attracted 28 research papers by scholars from across the country. Around 70 people attended this conference.

P. Mohanan Pillai Endowment Fund



The family of late Professor P Mohanan Pillai has donated a sum of money to create an endowment in his memory. He served the Centre for Development Studies with great distinction as a faculty member for about three decades during 1983- 2011. Thereafter he was serving as an Honorary Fellow of the Centre. He has made an important contribution to the understanding of issues related to technology transfer in Indian industries. Earlier, the committee of Direction had accepted this generous offer from the family. The annual interest income from this endowment will be used to

award a prize for the best PhD dissertation awarded during a calendar year, beginning with the PhD degrees awarded during 2022. The first award will be issued during the CDS Foundation Day in 2023.

P.K. Gopalakrishnan Endowment Fund



The late Dr. P.K. Gopalakrishnan was one of the founder members of the Centre. He was a scholar, policy advisor and an institution builder par excellence. He was one of the few outstanding personalities who played a pivotal role in setting up many advanced institutions of research and learning in Kerala during the 1970s and 1980s. As a Policy Advisor and Secretary to the Government during the Chief Ministership of the late Shri. C. Achutha Menon, Dr.Gopalakrishnan provided excellent support in formulating a science and technology policy for the state. To perpetuate Dr. Gopalakrishnan's memory, his family instituted the endowment at the Centre.

The 12th P. K. Gopalakrishnan Memorial Lecture on "Job Displacement, Unemployment Benefits and Domestic Violence" was delivered by Professor Sonia Bhalotra, Department of Economics, University of Warwick, Coventry, UK on 16 September 2022.

B.G. Kumar Endowment Fund

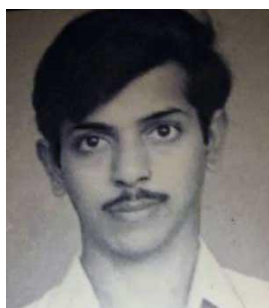
Bhaskar Gopalakrishna Kumar was an Associate Fellow at the CDS during 1990-93. His untimely demise in 1993 robbed the profession of a promising, independent-minded



economist. Educated at the International School, Geneva and the Calcutta Boy's School, Gopu Kumar, as he was popularly known, was an undergraduate at the St Stephen's College, Delhi. Graduate work took him to Leeds, Cambridge and Oxford where he was a student of Amartya Sen. His works span from the Kerala model of development, agricultural price-setting in India and population studies. Gopu's family had instituted an endowment fund to organise annual lectures in his memory.

The 13th B.G. Kumar Lecture on "Is India a Land of Opportunity?" was delivered by Professor Kunal Sen, Director, UNU-WIDER, Helsinki, Finland, on 21 November 2022

A.D. Neelakantan Endowment Fund



A.D. Neelakantan was a student of the first batch of the M.Phil. Programme (1975-76) at the Centre. After his tragic demise in 1977, an endowment fund was instituted with contributions from his

family, students and staff of the Centre. The purpose of the Endowment is to provide token financial support to deserving scholars to undertake research on socio-economic problems and also for the best performer in PhD coursework.

During the reporting period, the AD Neelakantan Endowment prize was awarded to Mr. Abhinav Surya L.T of the PhD Programme in Economics 2021 Batch.

Chandrika Sharma Endowment Fund



Chandrika Sharma did her MPhil in Applied Economics at the Centre during 1993 through 1996. She was in the ill-fated Malaysian Airline, Flight MH 370, which disappeared without a

trace on March 8, 2014, while on a flight from Kuala Lumpur to Beijing. Her classmates at the Centre, during that time, have got together and set up the Chandrika Sharma Endowment at CDS in January 2020. The annual income from this endowment will be used to provide an award for the best Statistical Survey Report written by an MPhil or Pre PhD Student. During the reporting period, it was awarded to Mr. Abhinav Surya L.T and Mr. Mayur Jeevan Kamble of the PhD Programme in Economics 2021 Batch.

Joan Robinson Endowment Fund



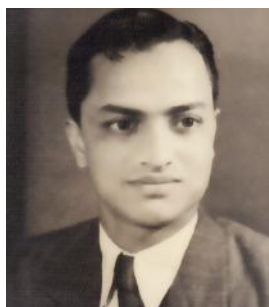
Prof. Joan Robinson spent a few months as Visiting Fellow at the Centre in the mid-seventies. Out of the royalty that she earned from one of her books, she instituted an endowment to support public lectures

at the Centre. Prof. Robinson passed away and in her memory, the Centre had organised seven public lectures. Professor Maria Cristina Marcuzzo of University of Rome, Italy delivered the last public lecture. The original funds thus created out of the accumulated royalties have been supplemented by a generous grant from Professor Ravi Kanbur, Professor of Economics, Cornell University, USA while

he was the first K N Raj National Fellow at the Centre during 2013-14, to form the Joan Robinson Endowment.

The Joan Robinson prize will be awarded for the best overall performance in the MA (Applied Economics) programme. The prize is awarded from the annual returns of this endowment. The Joan Robinson prize for meritorious performance was awarded to Mr. Sheersh Pradhan (MA 2020-22)

M.G. Kanbur Endowment Fund



Professor M.G Kanbur was among the generation of Indian economists who first used quantitative mathematical and econometric methods to analyze the economy of India and other

developing countries. His Ph.D at the University Of Birmingham, UK, was on spatial econometrics methods applied to the rice economy of South India. He was also a close associate of Professor K.N. Raj. He was one of the first economists that Professor Raj invited to visit CDS. He became a regular visitor to the Centre during its early founding days and always spoke warmly of his association with CDS.

The M.G. Kanbur prize is based on annual returns from the M.G. Kanbur Endowment instituted at the Centre by his son, Professor Ravi Kanbur, Professor of Economics, Cornell University, USA with an initial corpus of Rs 5 lakhs. The prize is awarded to the best performer in the quantitative courses of the MA (Applied Economics) programme. The M.G. Kanbur Prize for meritorious performance was awarded to Rohit Kumar Shah of the 2021-23 batch.

6

SUPPORT SERVICES

K. N. RAJ LIBRARY

The year 2022-23, was the post Covid-19 reopening phase. The library's activities proceeded as usual. The major developments were the change of library software to the popular open source software Koha in December 2022 and starting of BHIM UPI based digital payments in January 2023.

The K.N.Raj Library continues to provide Book Selection Lists, display of latest catalogues of leading Universities Presses, prominent publishers, book lists and reviews, display of books on approval from several reputed book suppliers, etc. for the benefit of Faculty and Scholars, thereby improving the quality of books selected for the library. During the year 265 books, 2 cd-roms and 64 ebooks were added to the collection.

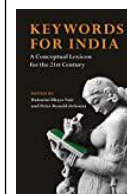
The library automation software Libsys4x was discontinued and open source software Koha was introduced. Through the tender process M/s Informatics Pvt. Ltd., Bengaluru was selected as the provider for Koha implementation, data migration and technical support. The training for library staff for using Koha was conducted from 6th to 8th December 2022. Koha is hosted in cloud installation and is used by library users and staff for the day to day operations and catalogue search. The library catalogue (OPAC) is available online at <https://cdslibopac.informaticsglobal.com/>

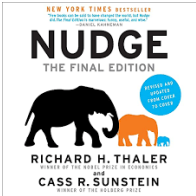
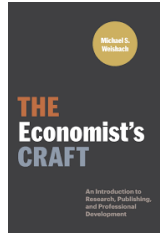
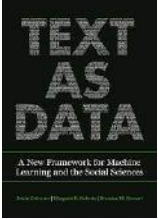

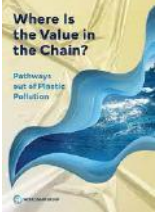
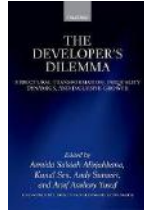
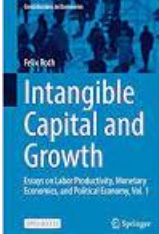
CDS Information Repository (Digital Library) using the DSpace Open Source Software is installed to capture / preserve digital content and make them accessible to scholars and faculty. It is updated regularly by capturing the details of CDS Publications. It is available here <http://ir.cds.ac.in:8080/xmlui/community-list>

Some new additions to library collection:

Nair, Rukmini Bhaya, and Peter Ronald DeSouza, eds.

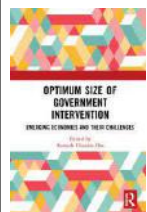
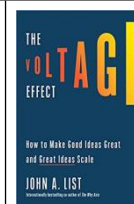
Keywords for India: A conceptual lexicon for the 21st century. Bloomsbury Publishing, 2020.



	<p>Thaler, Richard H., and Cass R. Sunstein.</p> <p>Nudge: The Final Edition. New Haven: Yale University Press, 2021.</p>
<p>Weisbach, Michael S.</p> <p>The Economist's Craft: An Introduction to Research, Publishing, and Professional Development. Princeton: Princeton University Press, 2021.</p>	
	<p>Grimmer, Justin, Margaret E. Roberts, and Brandon M. Stewart.</p> <p>Text as Data: A New Framework for Machine Learning and the Social Sciences. Princeton: Princeton University Press, 2022.</p>
<p>Raghunathan, V.</p> <p>Irrationally Rational: Ten Nobel Laureates Script the Story of Behavioural Economics. Gurugram: Penguin/Viking, 2022.</p>	
	<p>World Bank.</p> <p>Where Is the Value in the Chain? Pathways out of Plastic Pollution. – New York: World Bank, 2022.</p>
<p>Alisjahbana, Armida Salsiah, ed.</p> <p>The Developer's Dilemma. – Oxford: Oxford University Press, 2022.</p>	
	<p>Roth, Felix.</p> <p>Intangible Capital and Growth: Essays on Labor Productivity, Monetary Economics, and Political Economy, Vol. 1. – Cham: Springer, 2022.</p>

List, John A.

The Voltage effect: How to make good ideas great and great ideas scale. – London: Penguin Business, 2022.



Das, Ramesh Chandra, ed.

Optimum size of government intervention: Emerging economies and their challenges. – Oxon: Routledge, 2022.

The K.N.Raj Library subscribes to 65 Print Journals and 12 Newspapers. The library also received 41 print periodicals / journals as gift. The subscription to Oxford Online – Social Science collection (86 journals), Wiley Online (22 journals), ProjectMUSE – Social Science collection (113 journals), Science Direct - Economics, Econometrics, and Finance (106 journals) were renewed for the year 2023. Access to the EconLit (599 journals) and JSTOR (2400 journals) were provided by the ICSSR/NASSDOC consortia. These 6 journal databases jointly are providing access to 3326 e-journals. They are available to the CDS community through IP access.

BHIM UPI based payment facility was launched in the library from January 2023. Library users can now remit payment using their mobile devices with the help of the QR code. The membership during the reporting period is as follows. A total of 424 new members joined / renewed membership, out of which 336 are reference memberships. Three institutions also renewed their membership. The library continued to provide Reference Service, Lending Service, Bibliographic Service, Internet Search Service, Content Page Service, and so on. Students and Researchers from all over India and abroad used the online services of the library.

The Electronic Database Unit (EDU) continued to provide services to internal as well as external members. The EDU has a collection of databases in Economics, and related disciplines in Social Sciences. This year library started to subscribe to the following three database: CMIE Consumer Pyramids (CPHS), Clarivate Derwent Innovation, and EMIS Professional – India. Some other prestigious statistical databases available in the library are Annual Survey of Industries, Census of India Data, CMIE ProwessIQ, EPWRF India Time Series, IndiaStat, National Sample Survey Unit Level Data, IMF Balance of Payment Statistics, IMF Direction of Trade Statistics, IMF International Finance Statistics, RBI Database on Indian Economy, UN Comtrade, Venture Intelligence and World Bank Data. EDU also provided the document delivery / ILL service through DELNET and JNU Library.

During the reporting period the online 'content alerts' site has been updated with 1323 posts and has received 21381 visits.

The following is the URL <http://knrajlibrary.wordpress.com/> of the service.

KNRaj Library on Social Media:

Content alert blog on Wordpress	http://knrajlibrary.wordpress.com/
Facebook	https://facebook.com/knrajlibrary
Twitter	https://twitter.com/knrajlibrary
Telegram Messenger	https://t.me/knrajlibrary
WhatsApp Messenger	Message “[NAME] Add to KNRL Alerts” to +91 9447251892 from your WhatsApp.

Five book displays were organized during the reporting period. The works of Dr. B. R. Ambedkar available in the library were kept for display from 20th to 29th April 2022. The works of Prof. K. K. George available in the library were kept for display from 12th to 19th August 2022. The works of the Nobel Laureates Ben S. Bernanke, Douglas W. Diamond and Philip H. Dybvig available in the library were kept for display from 11th to 14th October 2022. The works of Prof. K C Zachariah (1924-2022) available in the library were kept for display from 18th to 20th January 2023. On the occasion of International Women’s Day 2023, latest books available in the library in Gender Studies are kept for display from 8th to 13th March 2023. These displays were kept in the Circulation Area of K.N.Raj Library. They were useful for the CDS community and library users.

A Training Programme on CMIE ProwessIQ was held on 19th September 2022 (Monday) at the Joan Robinson Hall, CDS, Thiruvananthapuram. Mr. G. Raghavendran, Centre for Monitoring Indian Economy Pvt. Ltd. (CMIE), Bengaluru was the resource person for the programme. The session included briefing on using the ProwessIQ database, and CMIE Support Desk. The ProwessIQ users also took this opportunity to seek clarification for specific queries / doubts about data retrieval with the resource person.

Online Training Programme on EBSCO e-Resources was organized for the CDS faculty and students on 3rd November 2022. Mr. Nanda Lal T. S., Training Manager-South India, EBSCO Information Services was the resource person for the programme. The event was held on the Zoom platform. The users got the opportunity to seek clarification from the resource person for specific doubts about search and retrieval of EconLit and EBSCO e-Books that are provided by ICSSR and subscribed by the centre at <http://search.ebscohost.com> and also about using the mobile app of the EBSCO e-resources.

An online Training Programme on Derwent Innovation (Derwent Global Patent Data) for the CDS community was also organized. Event was conducted through Microsoft Teams on 23rd November 2022 (Wednesday). Dr. Subhasree Nag, Regional Solutions Consultant, Clarivate Analytics (India) Pvt. Ltd. was the resource person for the programme. The users took this opportunity to seek clarification from the resource person for specific doubts about search and retrieval of Derwent Innovation Index.

An Online training Programme on CMIE Consumer Pyramid Household Survey data (CPDx) was held on 4th January 2023 (Wednesday) for the CDS community. Ms. Preetha Joseph, Engagement Specialist,

CMIE Pvt. Ltd. was the resource person for the programme. The users took this opportunity to seek clarification from the resource person for specific doubts about search and retrieval of the CPDx database.

The 2022-23 batch MA, and PhD scholars were given an orientation about the library. This included a power point presentation and a live interactive session with the librarian. They later met the library staff, after arriving in the campus, to familiarize with the library's activities and services. 16 students and faculty of Dept of Economics, MES Asmabi College, Thrissur visited the library on 28th June 2022. 13 PG students and a teacher from Department of Economics, Vimala College (Autonomous), Thrissur visited our library on 4th November 2022. The third semester students and teachers of Department of Economics, Al Shifa College of Arts and Science, Perinthalmanna visited the library on 18th November 2022. The participants of the ICSSR Sponsored Workshop on Database on Indian Economy held at our Centre visited the library on 5th Dec 2022. 11 students and 2 teachers from the Department of Sociology, Vimala College (Autonomous), Thrissur visited our library on 20th December 2022. 35 students from Department of Architecture, University of Iowa, alongwith 2 teachers from Laurie Baker Centre for Habitat Studies, Thiruvnanthapuram visited the library on 30th December 2022, to learn about sustainable architecture style. 40 MBA students and teachers of the Amrita School of Business, Kollam visited the library on 13th March 2023.

Publication by staff:

Sriram V. (2022, Jan-June) Zotero for managing library services. South Asian Journal of Socio-Political Studies (SAJOSPS), XXII (2): 74-79.

External events by Staff:

Shri. V. Sriram

Event	Date
Online Lecture on Citation and Reference, and avoiding plagiarism. Writing Skills Workshop, Centre for Economic and Social Studies, Hyderabad.	01st June 2022
Talk on Careers in Science, Social Science and Arts & Humanities Tarunotsava-2022, Kendriya Vidyalaya Pattom Shift-1, Thiruvananthapuram.	7th July 2022
Online Lecture on Resources for Research in Economics Two-week Capacity Building Programme (online) for Social Science Faculty members of Universities / Colleges /Institutions, Centre for Economic and Social Studies (CESS), Hyderabad, India.	16th July 2022
Lecture on Managing Literature Review National Workshop on Research Awareness on Bibliographic Analysis, Literature Review and Research Ethics, Mahatma Gandhi College, Thiruvananthapuram, India.	5th August 2022
Lecture on Research Ethics National Workshop on Research Awareness on Bibliographic Analysis, Literature Review and Research Ethics, Mahatma Gandhi College, Thiruvananthapuram, India.	5th August 2022

Online Lecture on How To Collect Authentic Secondary Data National Online Workshop on Trends in Book and Journal Publishing, Assumption College (Autonomous), Changanacherry and Bishop Kurialacherry College for Women, Amalagiri with Lore & Ed Research Associates, Pala.	10th August 2022
Webtalk on Introduction to library and learning resources Induction Programme for PG Students, Department of Commerce, University of Kerala, Thiruvananthapuram, India.	27th September 2022
Lecture on Reference Management System Workshop on reference management system and non-standard data collection, Upasana College of Nursing, Kollam, India.	29th October 2022
Lecture on Academic writing and Publishing Workshop on Academic Writing, Publishing, and Reference Management, Loyola College of Social Sciences, Thiruvananthapuram, India.	19th November 2022
Lecture on Reference Management System Workshop on Academic Writing, Publishing, and Reference Management, Loyola College of Social Sciences, Thiruvananthapuram, India.	19th November 2022
Online Lecture on How to collect authentic secondary data National Online Faculty Development Program (FDP) on Advanced Research Methodology & Publishing, Guru Angad Dev Teaching-Learning Centre of Ministry of Education (PMMMNM), SGTB Khalsa College, University of Delhi, and Assumption College (Autonomous), Changanacherry, Kerala.	29 November 2022
Lecture on Reference Management System Workshop on Database on India Economy Centre for Development Studies Thiruvananthapuram, India	8th December 2022
Lecture on Academic Writing and Publishing Higher Secondary School Teacher Transformation Programme (HSSTTP). Loyola College of Social Sciences, Thiruvananthapuram.	11th December 2022
Online Lecture on Resources in Social Sciences 78th Webinar in Ecowings Series, Government College for Women, Thiruvananthapuram, India.	7th January 2023
Webinar on Research Ethics Teresian Research and Consultancy Cell, St. Teresa's College (Autonomous), Ernakulam, Kerala, India.	16th February 2023
Lecture on Research Integrity: Importance of Values in Research Process National Seminar on Research Integrity and Scholarly Communication, Kerala Library Association and Union Christian College, Alwaye, Ernakulam	25th February 2023
Lecture on Referencing for Research Teaching Innovation Programme in Economics, Centre for Development Studies, Thiruvananthapuram, India	27th February 2023

Computer Centre

The IT wing of the Centre provides technical support to the faculty and students to achieve its objective of knowledge creation/dissemination. In this regard, the IT section supports teaching/research activities and operations of the Library and Administration.

IT infrastructure in CDS Campus

CDS has its own data centre with state of the art facilities.

- Nine Juniper 3300 switches with 10 Gigabits uplink ports are installed in four buildings of the campus. Switches are distributed in nine locations on the campus.
- Fiber network connection from the computer centre to other buildings.
- Fortinet 300 D UTM as a security device.
- Two HP Proliant DL 180 Gen-9 servers.
- One EMC VnXe 3200 SAN Storage
- One Polycom Video conferencing system.
- Virtualization of servers using VMWare.
- Zimbra based Email server for 200 users.
- KOHA software for library access.
- Active directory for 300 users.
- File server for storing and sharing data.
- 90 HP desktops and 10 thin clients for staff and student use.
- 60 Printers 6 Scanners.
- 100 Mbps NKN(National Knowledge Network) connectivity and 20Mbps NMEICT connectivity for internet facility in the campus.
- 45 numbers of Cisco and D-link Wi-Fi Access points across the campus, including hostel and guest house, to provide internet facilities.

- **Software:** Microsoft Windows 11 / Office, Statistical software such as STATA 17, Eviews 9.5, SPSS 22, Gauss software and Grammarly for education.

Campus ERP

Cloud based campus ERP is now part of E-governance implementation at CDS. All students, faculties, and staffs have login faculty to this online ERP portal and can avail of various services.

The main modules and activities through the ERP application are,

Academic- Student life cycle management- Student admission. Fee payment, Attendance time table etc

Examination – Exam subject registration and Grade card

Feedback – submission of student feedback and various reports.

Online Learning management system

Establishment: Online leave application and approval by faculty and staff

Payroll- Pay slips, salary Certificate etc.

Grievance service: Students and staff can request various service requests to the estate and engineering section.

General Facilities

(a) Computer Lab

Computer lab houses 20 PCs with Windows 8.1/10 and other essential software, including statistical packages like STATA and E-Views. These lab has been used for computer based training programmes and workshops regularly.

(b) Students Bay and PhD Bay

Students bay, computation environment, exclusively meant for MA students. This bay is equipped with 5 PCs and two printers. PhD Bay is equipped with 2 computers and a printer and this facility is exclusively for Ph.D students. Students Bay and PhD bay are open for students throughout the day.

(c) Library

13 PCs have been installed in different locations of the CDS library. These PCs are accessible to all library users.

(d) Wi-Fi Facility

CDS campus is fully WI-Fi enabled. All the buildings in the campus are equipped with Wi-Fi facilities. Wi-Fi facility is also available in the guest house and the hostels for students.

(e) Classrooms

All classrooms are equipped with PC, Digital Podium and LED screens.

Current activities.

CDS is planning to have a digital database of Plantation and Migration data. Development of the database is in progress.

Staff Welfare Fund

As part of the welfare measures of the Centre, a Welfare Fund has been instituted consisting of two components: (i) to provide financial assistance (non-refundable) to the last grade employees in the event of unforeseen calamities; and (ii) to provide repayable loans to the employees for specified purposes. The amount available in the Welfare Fund, contribution from the Endowment fund as approved by the Committee of Direction from time to time and 10% (ten percent only) of the surplus generated out of the research projects every financial year and return on loans and other investments shall constitute the fund for the purpose. The annual expenditure on account of financial assistance and repayable loans will be limited to the funds so allocated plus the loan amount and interest there on repaid by the employee borrowers during that year. During the reporting period, 12 applications for loan were approved.

Two children of employees were awarded merit certificates and cash awards for their scholastic performance in public examinations. The Fund is managed by a Committee. The Chairperson of the committee is Dr J. Devika with Shri Suresh Kumar S, Registrar, Shri Suresh S., Senior Finance Officer and Smt Ansamma Joseph, Deputy Librarian as members.

Staff Welfare Fund Merit Awards 2022

The Staff Welfare Fund Merit Awards (merit certificates and cash prizes) are being given to the children of employees who have obtained scholastic merit of First Class and above on their Board/University level examinations. This year the following students bagged this Award

Sl.No	Name of Children	Name of Staff	Course	Class/ Grade
1.	Pulari B G	Prof. Beena P L	12 th CBSE	Distinction
2.	Naazim K	Mr. Ameer Ali K	B.Com.	First Class

The award distributed on the day of the Governing Body (GB) meeting, held on 30 August 2022.

7

NEW INITIATIVES

(A) Academic

New Director



Professor Sunil Mani, the 9th director of the Centre will be demitting his office on May 31, 2023 upon super annuation of his 6-year term. In the mean time, Professor C Veeramani has been appointed

as the 10th director of the Centre after due process and he will assume his position on June 1, 2023. Previously, he served as a professor at the Indira Gandhi Institute of Development Research (IGIDR) in Mumbai. He holds a PhD and MPhil in Economics from Jawaharlal Nehru University (JNU), New Delhi. Before joining IGIDR, he worked with the Indian Council for Research on International Economic Relations (ICRIER) in New Delhi and the Indian Institute of Technology (IIT) Bombay. He was a Visiting Fellow at the Crawford School of Public Policy, Australian National University. He is the recipient of the EXIM Bank International Economic Development Research award 2003 for the best doctoral dissertation in international economics. Professor Veeramani serves as the Joint Managing Editor of the Journal of Quantitative

Economics and as the Economics Area Editor of the Journal of Indian Business Research. He also contributes his expertise as a member of various committees, including the RBI's Empowered Committee on External Commercial Borrowings and the Standing Technical Committee of Experts responsible for reviewing EXIM Bank's Export Leading Index model, which forecasts India's exports. His recent research papers focus on diverse topics such as Global Value Chains, Trade Patterns, Trade Policy, Productivity, Labor Market Outcomes, Exports and Job Creation, and Free Trade Agreements. His research has been extensively cited in Chapter 5, Volume 1 ("Creating Jobs and Growth by Specializing in Exports in Network Products") of the Economic Survey 2019-20, published by the Ministry of Finance, Government of India.

Post-Doctoral Research Fellows

Since its inception in 1970, CDS has been focusing on training research scholars in applied development economics through its highly rated MPhil and PhD programmes. The next significant change occurred in 2012-13 when it introduced a two-year Master's programme in Applied Economics, now in its tenth year of establishment. Over the years, there has been a strong demand from the research scholar community that CDS initiate a post-doctoral research programme. As part of its programmes for celebrating

its 50th Foundation Year, CDS decided to launch a post-doctoral research programme. However, the onset of the pandemic upset these plans. The thinking was revived in 2023 with several applicants for the Chief Minister's Nava Kerala Post-Doctoral Fellowships (CMNKPDF) approaching CDS for possible affiliation. So after much discussion and careful introspection, CDS invited applications under this fellowship scheme, and the first scholars under this scheme will be welcomed during 2023-24.

CDS Prize for the best performing Assistant Professor



To encourage younger CDS faculty to improve their publication record, the Committee of Direction of the Centre has instituted a cash award for the Assistant Professor of CDS who has the largest number of SCOPUS-indexed journal articles (subject to a minimum of at least two) during a biennium starting with the 2019-21 biennium. **Dr Ritika Jain** is the first recipient of this coveted award. Professor Kaushik Basu, Cornell University, gave away the award on CDS Foundation Day on January 11, 2023.

Azadi Ka Amrit Mahotsav (AKAM) Lecture Series

Azadi Ka Amrit Mahotsav is an initiative of the Government of India to commemorate 75 glorious years of progressive India and its rich history, diverse population, magnificent culture and outstanding achievements. This is dedicated to the people of India who have not only been instrumental in bringing India thus far in its evolutionary journey but also hold within them the power and

potential to enable Prime Minister's vision of activating India 2.0, fuelled by the spirit of Aatmanirbhar Bharat.

The Centre began AKAM series of public lectures in January 2022 for a whole year, and it will continue as a series of monthly lectures till August 2023. Eminent scholars have been invited, who have done research on lesser known personalities who have contributed to our understanding of freedom and well-being, or those who have provided novel interpretations of the ideas of better-known figures.

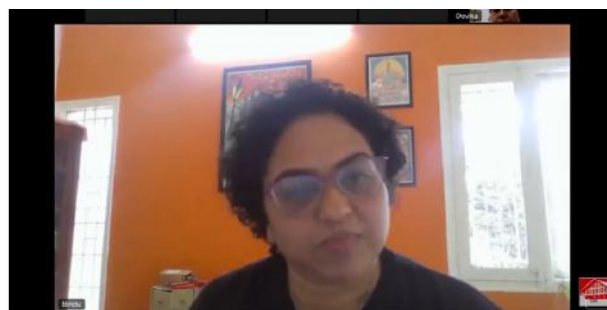
The lectures conducted during 2022-23 are:

Lecture 4: 'Haleema Beevi: The Forgotten Renaissance and Pioneering Women Editor' on April 28, 2022

Presenters : Noorjahan K, Research Scholar, Department of Social Work, Tata Institute of Social Science, Mumbai and Noora Vallil, Assistant Professor, Department of Malayalam, Farook College, Kozhikode

Lecture 5: Rethinking Anti-Caste Dissent: Vagbhadananda Gurudevar and the Atma Vidya Sangham in the Twentieth Century Kerala by Dr. Divya Kannan, Assistant Professor, Department of History and Archaeology, Shiv Nadar University, Greater Noida on May 25, 2022

Lecture 6: Rediscovering Muthukulam Parvathy Amma by Dr. G. Ushakumari Associate Professor, Dept. of Malayalam, KKTU Govt. College, Kodungallur on June 30, 2022



AKAM Lecture Series

Lecture 7: An Introduction to the Contributions of Thirunalloor Karunakaran By Shri T K Vinodan, Chief Editor of the Newsportal, Leftkliknews on July 29, 2022.

Lecture 8: Alleppey Vincent (1938- 1984) : A Practical Utopian by Dr. Bindu Menon, Associate Professor of Media Studies at Azim Premji University, Bangalore on September 30, 2022

Lecture 9: Balamaniyyamayute Lokangal by Prof K Satchidanandan on November 11, 2022



Lecture 10: Novels, writing and the making of a modern intellectual: situating O. Chandu Menon by Prof. G. Arunima, Professor at the Centre for Women’s Studies, Jawaharlal Nehru University, New Delhi, and the Director of the Kerala Council for Historical Research on March 31, 2023

CDS Museum

Yet another project for commemorating the 50th Foundation Year of CDS is the establishment of a CDS museum which is still work-in-progress. The Museum has an impressive collection of documents about the founding of CDS and the various programmes in the Centre, photographs of all those who led the institute as Chairmen of Governing Body, Directors and Registrars, and a complete collection of all annual reports right through the first year. One of the most exciting exhibits in the Museum is

a collection of equipment which maps out the evolution of technology in writing a research paper, presenting and distributing it for broader circulation. A committee consisting of experts has been set up to systematize the collection.



Visiting Research Professors/ Fellows

The category of scholars known as “Visiting Professors/ Fellows” initiated in the year 2017-18 is continuing this year. Appointments to this category are based on invitation only and represent eminent scholarship in a range of topics that are of importance to Centre’s increasing teaching and research responsibilities. The expenses connected with this will be charged to the Director’s Research Fund and is not taken from any grants given by either the ICSSR or the Government of Kerala.

Visiting Professors/Fellows at the Centre 2022-23

Sl No	Category and Name	Home Institution	Area
Category 1A: Lecture only			
1	Prof. Krishnendu Ghosh Dastidar	JNU, New Delhi	Game Theory
2	Prof. Madhura Swaminathan	ISI, Bangalore Centre	Agriculture economics
3	Prof. Sukhpal Singh	IIM - Ahmedabad	Agriculture Economics
4	Dr Suraj Jacob	Azim Premji Bangalore	Project Evaluation
5	Dr.Dilip K Dutta	University of Sydney	Econometrics Macro Economics
Category 1 B: Lecture & Paper			
6	Dr. Ravi Raman	Kerala State Planning Board	Political Economy
7	Prof. PulapreBalakrishnan	Ashoka University, Haryana IIM - Kozhikode	Applied Macroeconomics
8	Shri. R Mohan	Indian Revenue Service (Retd)	Public Finance
9	Prof. A V Jose	Former Economist, ILO and Honorary Faculty, GIFT, Trivandrum	Social and Labour Policies, Social Protection
Category 2: Fixed Term Appointment			
10	Prof. Sudip Chaudhury	IIM - Kolkata	Macroeconomics/Industrial Economy of India
11	Prof.R. Nagaraj	IGIDR	Indian Economy
Category 3: Foreign scholar			
12	Prof. Frances Stewart	Oxford University	Development Economics
13	Prof. Ravi Kanbur	Cornell University	Development Economics
14	Prof. Tirthankar Roy	London School of Economics and Political Science	Economics History
15	Prof. Thankom Arun	University of Essex	Economics
16	Prof. T V Paul	McGill University	Political Science/ International Relations
17	Dr. Aprana Nair	University of Oklahoma	Disability Studies & History of Public Health

(h) Welfare

Providing laptops for financially weak students for the period of their study at the centre was initiated during the last year. In addition to this a tuition and hostel fee waiver for economically weak but meritorious students pursuing their MA Programme introduced last year is continuing. A fund was also instituted to provide financial support to meet abnormal health expenditures since the financial year 2018-19 is also continuing.

(B) SUPPORT SYSTEMS

Improvement in Recreation Facilities

A major portion of the roads in the campus have been retarred. Repainting and floor tiling of computer centre, renovating H14 quarter including rewiring, floor tiling, repainting etc., part preventive maintenance in the HT substation, repainting and rectification works of all LT panels in the library and Generator set have been done during the year. Purchase of 6 nos. of new water purifiers with RO, replacing the old plumbing lines behind the guest house building, new water supply line to canteen and guest house from West hostel area were also undertaken. Routine maintenance

work related to the day-to-day activities and renewal of AMC's was also carried out. A nurturing calendar which was initiated in 2019 ensures that the campus maintains a safe and clean environment throughout the year by systematically following the calendar schedule.

The Centre has a well appointed guest house provides a total of 14 rooms comprising of 9 Superior and 5 Standard rooms. Providing a homely atmosphere to guests is the prime concern of the Guest House. Facilities like electric kettles, tea/ coffee making items, cable television, and hot water is available in all rooms. Mosquito netting and repellants are also provided. Wi-fi facilities are made available in all rooms with separate Wi-Fi amplifiers which ensure easy and strong access. All rooms are provided with fresh linen and cleaned daily providing maximum hygiene in all situations. All bookings are directly administrated online, through e-mail (guesthouse@cds.edu). Prof. Praveena Kodoth is the Chairpeson of the Guest House. Supervision of the guest house is managed by Mr Anoop Kumar P.P, Guest House Manager. He is supported by Mr. Saibabu. S, Guest House Attendant who takes care of room arrangements, cleaning management and maintenance reporting.



8

GOVERNANCE AND ORGANISATIONAL STRUCTURE

COMMITTEES

(As on 31 March 2023)

Committee of Direction

Sudipto Mundle (Chairman)
Biswanath Sinha IAS
Virendra Kumar Malhotra
Ram Singh
Satish Chandra Garkoti
J. Devika
Sunil Mani (Convenor)

Finance Committee

Sudipto Mundle (Chairman)
Biswanath Sinha IAS
Virendra Kumar Malhotra
Chiranjib Sen
Gabriel Simon Thattil
Praveena Kodoth
Sunil Mani (Convenor)

Academic Programme Committee

Sunil Mani (Chairperson)
M. Parameswaran (Convenor)
All Faculty (Members)

JNU-CDS Committee of Direction for MA/MPhil/ PhD Programmes

Sunil Mani, Director, CDS (Chairman)
Prof. Srikanth Kondapalli
(Dean/ SIS/ JNU, New Delhi)
Prof. Kaushal Kumar Sharma
(Dean/ SIS/ JNU, New Delhi)
Prof. B. K. Pandey
(Arun Jaitley National Institute of Financial Management, Haryana)
Dr. Sanjeev Mishra
(Chairman, Dr. Jagannath Mishra Institute of Economic Studies, Patna)
Prof. Satish Chandra Garkoti
(Rector II, JNU, New Delhi – Special Invitee)
M. Parameswaran (CDS)
Thiagu Ranganathan (CDS)
S. Suresh Kumar,
Registrar, CDS (Convenor)

Academic Programme Co-ordinators

Ph.D Co-ordinator

Dr. M.Parameswaran

Ph.D Course Work Co-ordinators

Co-ordinator:

Prof. J. Devika

Associate Co-ordinator:

Dr. Ritika Jain

MA. Programme:

Thiagu Ranganathan

Chandril Bhattacharyya

Faculty Committee

Sunil Mani (Chairman)

J. Devika (Convenor)

Praveena Kodoth

Vinoj Abraham

Academic Committee

Sunil Mani (Chairperson)

Rajit Biswas (Convenor)

All faculty (Members)

Registrar (Member)

Chief Librarian (Member)

Systems Officer (Member)

Ms. Richa Baruah

(Ph.D Students' Representative)

Mr. Abhinav Surya L T

(Ph.D Students' Representative)

Ms. Aarushi Sharma

(MA Students' Representative)

Mr. Srivatsan

(MA Students' Representative)

Mr. Rohan Londhe

(MA Students' Representative)

Library Committee

Ritika Jain (Chairperson)

V. Sriram (Chief Librarian)

Abhilash T

S. Suresh Kumar (Registrar)

Ansamma Joseph

Mr. Basit Abdullah

(Ph.D. Student's Representative)

P. J. Nishok (Student Representative)

IT Committee

Beena P.L. (Chairman)

V. Sarath (Convenor, Ex-officio)

Srikanta Kundu

S. Suresh Kumar (Registrar, Ex -officio)

V. Sriram (Chief Librarian, Ex -officio)

Investment Committee

Sunil Mani (Chairman)

Praveena Kodoth

(Finance Committee Member)

S. Suresh Kumar (Registrar)

S. Suresh (Convenor)

Tharun Kumar M.P.

(Internal Audit Officer)

Staff Welfare Fund

J. Devika (Chairperson)

Suresh Kumar. S (Registrar)

S. Suresh (Sr. Finance Officer)

Ansamma Joseph

Staff Council

Ex-officio Members:

Sunil Mani (Director)

S. Suresh Kumar (Registrar)

V. Sriram (Chief Librarian)

S. Suresh (Senior Finance Officer)

Representatives:

Vinoj Abraham (Academic Staff)

P. L. Beena (Academic Staff)

H.S. Shareef (Convenor & Member,
Administrative Staff A)

Ansamma Joseph (Library Staff)

A.R. Ajikumar
(Member, Administrative Staff B)
Reeshma R.S.
(Member, Administrative Staff B)
G. Vijayan
(Member, Administrative Staff C)

Hostel Wardens

M. Parameswaran
Ritika Jain

SC/ ST Cell

Thiagu Ranganathan (Chairperson)
Abhilash T
Sumesh C. S
Ajil M (Student representative)

Student's Grievance Redressal Committee

Sunil Mani (Chairperson)
J. Devika
M. Parameswaran
Thiagu Ranganathan
Krishnapriya V S, Special Invitee

Internal Complaints Committee (ICC)

Praveena Kodoth (Chairperson)
Adv. Elsamma Praikalam
Thiagu Ranganathan
Lekha K
Ansamma Joseph
Aishwarya Prakash
(Student Representative)
Rahul Kamal (Student Representative)

Internal Quality Assurance Committee (IQAC)

Sunil Mani (Chairperson)
K N Harilal
Praveena Kodoth

J Devika
Vinoj Abraham
M. Parameswaran
Suresh Kumar S, Registrar, CDS
N Jayaram, Former Director, ISEC-
Bangalore (External Member)
Ram Singh, Delhi School of Economics,
University of Delhi (External Member)

CDS Chronicle

Vinoj Abraham

Seminar Co-ordinator

Rajit Biswas

Campus Committee

J. Devika (Chairperson)
Suresh Kumar S, Registrar
(Ex-Officio)(Convenor)
Chidambaran Gurunathan Iyer (Member)
Ajikumar A R (Member)
Aanandh N R (Member)
Anoop Kumar P P (Member)
Ashish Biswas, Student's representative
Shonima Nelliath, Student's representative
Srivatsan M, Student's representative
Amrita Basu, Student's representative
Biswadeb Bose, Student's representative

Canteen Management Committee (CMC)

Chidambaran G.Iyer (Chairperson)
Abhilash T (Co-Chairperson)
Suresh Kumar S. (Ex-Officio, Convener)
M.Parameswaran, Warden (Ex-Officio)
Ritika Jain, Warden (Ex-Officio)
A R Ajikumar
Ashraful Khalq, Student's Representative

Swagatha Majumdar,

Student's Representative

Navin Kumar Rai, Students Representative

Sakya Mukherjee, Students Representative

Guest House Management Committee

Praveena Kodoth (Chairperson)

Suresh Kumar S, (Ex-Officio, Convener)

J Devika, Campus Committee Chairperson
(Ex-Officio)

Anoop Kumar P P, Guest House Manager
(Ex-Officio)

Right to Information Act

S. Suresh Kumar, Registrar
(Chief Public Information Officer)

Ajikumar A.R.
(Asst. Public Information Officer)

Sunil Mani, Director
(Appellate Information Officer)

FACULTY

Director

Sunil Mani

Ph.D in Economics
(CDS/JNU)

Research Area: Innovation and Technology

Professors

Joseph K.J.

Ph.D in Economics
(CDS/JNU)

(Relieved from the Centre
on 18 July, 2022)

Research Area: Innovation and Development,
India's Plantation Agriculture

Udaya Shankar Mishra

Ph.D in Population Studies
(IIPS, Bombay)

(On Leave from 31 May 2021)

Research Area: Population Policies and Programme
Evaluation, Analytical and Measurement issues
in Gender and Health. Stochastic Models to
Study the Bio-social Determinants of Fertility
and Child Mortality, Poverty, Inequality
and Human Development

Harilal, K.N.

Ph.D in Economics
(CDS/JNU)

Research Area: Decentralisation and Governance, Politics
and Development

Praveena Kodoth

Ph.D in Economics
(University of Hyderabad)

Research Area: Gender and Development, Migration

Devika, J.
Ph.D in History
(MG University)

Research Area: History of, and present developments in, Gender, Politics, Development, and Culture in Kerala; the history of Migration and Cosmopolitanism in Kerala; local self- government in Kerala; translations and translation studies; Malayalam literature; contemporary politics and Methodologies in Social Sciences and Humanities

Vinoj Abraham
Ph.D in Economics
(JNU)

Research Area: Labour Economics, Gender & Development, Economics of Technology and Innovation, Development Economics, Regional Development, Plantation Studies.

Beena, P.L.
Ph.D in Economics,
(JNU)

Research Area: Industrial Economics, Indian Corporate Sector ,FDI, M&As and Competition (CESP, Policy, Globalisation and Contemporary Issues of Indian Economy, Kerala Economy

Associate Professors

Parameswaran, M.
Ph.D in Economics
(CDS/JNU)

Research Area: Economic Development, Macroeconomics and Industrial Development

Hrushikesh Mallick
Ph.D in Economics
(University of Mysore)

Research Area: Applied Open Economy Macroeconomics and Development Economics

Chidambaran G. Iyer
Ph.D in Development
Economics
(IGIDR)

Research Area: Innovation and Technology, Industry and Trade

Thiagu Ranganathan
Ph.D in Economics
(IIT, Bombay)

Research Area: Plantation Crops, Labour Employment and Social Security, agricultural Economics

Assistant Professors

Srikanta Kundu
Ph.D in Quantitative Economics
(Indian Statistical Institute)

Research Area: Financial Econometrics, Time Series, Volatility Models, Nonlinear Models, Stock Market

- Ritika Jain**
Ph.D in Economics
(IGIDR)
Research Area: Politics and Development, Industry and Trade, Innovation and Technology, Labour Employment and Social Security
- Rajit Biswas**
Ph.D in Quantitative Economics
(Indian Statistical Institute)
Research Area: Industry and Trade
- Abhilash Thadathil**
Ph.D in Political Science &
International Studies
(JNU)
Research Area: Politics and Development, Human Development, Health and Education, Labour, Employment and Social Security
- Jayaseelan Raj**
Ph.D in Social Anthropology
(University of Bergen, Norway)
(On Leave from 30/09/2022)
Research Area: Culture and Development, Politics and Development, Plantation Crops Labour, Employment and Social Security, Migration
- Chandril Bhattacharyya**
Ph. D in Quantitative Economics
(Indian Statistical Institute, Kolkata)
Research Area: Growth Theory and Other Studies
- Tirtha Chatterjee**
Ph.D in Development Studies
(IGIDR, Mumbai)
(Resigned from 04 August 2022)
Research Area: Agricultural Economics, Plantation Crops, Development Economics, Policy Evaluation
- Gogol Mitra Thakur**
Ph.D,
(JNU)
Research Area: Growth and Development, Macroeconomics
- RBI Chair Professor**
- Sunil Mani**
Ph.D in Economics
(CDS/JNU)
Research Area: Economics of Technology and Innovation

ADMINISTRATION

Registrar's Office

S. Suresh Kumar	Registrar
Shareef H.S.	Assistant Administrative Officer
Ajikumar A.R.	Assistant Grade I/ Designated as PS to Registrar

Academic Programme Office

K. Lekha	Assistant Grade I
Emmanuel T.J.	Assistant Grade I
Raji R.S.	Assistant Grade II
Arun K.C.	Assistant Grade II

Finance

S. Suresh	Senior Finance Officer
M.P. Tharun Kumar	Internal Audit Officer
Arun Hrishikesh	Accounts Officer
Reeshma R.S.	Accountant
Biju R.S.	Attendant

Director's Office

Praveen G.	Senior Grade Assistant /Designated as P.S. to Director
Ajayanandam S	Attendant

Estate and Engineering

Aanandh N.R.	Campus Supervisor
Anoop Kumar P.P.	Assistant Campus Supervisor/ Designated as Guest House Manager
G.Vijayan	Attendant

Guest House

Anoop Kumar P.P.	Guest House Manager
Saibabu S.	Attendant

Reception/ Despatch

Satheesh S.S. Assistant Grade II

COMPUTER CENTRE / IT

V. Sarath Systems Officer

K.N. RAJ LIBRARY

V. Sriram Chief Librarian
Ansamma Joseph Deputy Librarian
Ameer Ali Sr.Assistant Librarian
S. Gopakumar Sr.Assistant Librarian
Sivakumar P Assistant Librarian
Sumesh C.S. Attendant

Internal Complaints Committee (ICC) Report

ICC conducted Orientation Programmes on Sexual Harassment of Women at the Workplace as mandated under the Sexual Harassment of Women at the Workplace: Prevention, Prohibition and Redressal Act, 2009 on 21st April 2022 and 15th December 2022 for successive batches of students. After explaining the provisions of the act, a documentary was screened and there were group activities and discussions.



As part of gender sensitisation initiative of the ICC, a short film was screened on 20th May 2022 at the Baker Auditorium. This was followed by discussion on various dimensions underpinning sexual harassment such as intersectionality of caste, sexuality, power and privilege.

International Women's Day was celebrated on 8th March 2023 under the banner of ICC. Student representatives organised the celebrations with the enthusiastic participation of the CDS community. There were interesting activities such as poster making competitions, singing, dancing, poetry, quiz contest and thought provoking presentations.

The ICC screened a short film 'Asanghadithar' on the 6th of March. All the non teaching staff members at CDS, including the contractual staff were special invitees.

A panel discussion was conducted on the topic 'Women In Academia, Over The Ages' on the 9th of March. The Panelists for the discussion were Prof Leela Gulati, Prof G. Arunima, Prof Praveena and Dr Darshana S. Mini. The Discussion was moderated by Prof Devika.

OBITUARY

Dr. K C Zachariah

Dr. K C Zachariah, an Honorary Fellow of the Centre who has served on our Governing Body as a member, passed away on 18 January 2023.



He was a senior demographer at the World Bank,

Washington DC, the United Nations expert on demography at the Cairo Demographic Centre and Deputy Director, International Institute for Population Sciences, Mumbai. He holds a PhD in Sociology from the University of Pennsylvania, United States of America and has six decades of research experience on demography, migration and development. He and Professor S. Irudaya Rajan are responsible for developing systematic surveys and research on international migration from Kerala. He was associated with all the *Kerala Migration Surveys* that CDS conducted from 1998 through 2018. He has published extensively in national and international journals on social, economic and demographic implications of international migration. A taciturn and unassuming man, age was not a hindrance to him as he continued to research international migration issues to the very end. The country and the state have lost a demographer par excellence. Colleagues at CDS are planning a 2023 version of the Kerala Migration Survey, which will be a tribute to this pioneering demographer.

Dr. A D Damodaran



Dr. A D Damodaran, Honorary Fellow of the Centre, passed away on 13 January 2023. He was 87. Dr Damodaran was a renowned scientist and served many years as the Director of CSIR-National Institute for Inter-Disciplinary

Science and Technology, Trivandrum. He was also the chairman of the public sector Kerala State Electronics Development Corporation (Keltron) and an expert in Intellectual Property Rights, food nutrition, nutraceuticals and advanced materials. He also served as the Chairman of the Kerala State Council for Science, Technology and Environment. He played an important role in science and technology policy-making in Kerala. A D Damodaran is survived by wife E M Malathi, a son and a daughter; Dr E M Malathi, is the daughter of the first Chief Minister of Kerala and Left leader late E M S Namboodiripad.

Professor K K George



Professor K K George, passing away on 12 August 2022, was with the Centre in visiting capacities during the 1980s and the 1990s. He was an accomplished researcher in centre-state financial relations and worked very closely with one of our founding fathers, Professor I S Gulati. While with the Centre as a visiting researcher, he authored a

popular publication, *Limits to Kerala Model of Development: An Analysis of Fiscal Crisis and Its Implications* (Trivandrum: Centre for Development Studies, 1999) which ran into two editions. He had an excellent understanding of Kerala's fiscal situation and could convey this to students and researchers in an admirable manner. His recently published autobiography, *A Journal of my Life* (Thrissur: Current Books, 2022), has a whole chapter devoted to his stint at the Centre. We mourn his passing and offer our condolences to his bereaved family and friends.

Shri. Soman Nair



Mr. Soman Nair (69), former Registrar passed away on June 06, 2022. He was hospitalized due to COVID-19 related issues. He served the Centre with great distinction as Chief Administrative Officer and Registrar for about 13 years during 1999- 2012. Thereafter he was serving as Executive Registrar at Dhirubhai Ambani Institute of Information and Communication Technology at Gandhi Nagar, Gujarat. He has made important contributions to the administration of CDS.

Joseph Gee Varghese

Mr Gee Varghese passed away on June 22, 2022. He served the Centre as a Technical Assistant from 1975 to 2005. Initially, he was in charge of publications like the one who operated the cyclostyling machine. Later, when this technology became outdated as the PCs and printers came in, Mr Gee Varghese was moved to the despatch section. Mr Gee Varghese was a very conscientious and hardworking, a silent worker.

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RESEARCH TITLES

CULTURE AND DEVELOPMENT

During the reporting year no studies were carried out under this research theme.

DECENTRALISATION AND GOVERNANCE

Completed Studies

1. Disciplinary vs. Neoliberal Governmentality? Understanding Agency in the Pallichal Panchayat

J. Devika

Sponsor: RULSG grant research, CDS

Status: Published in the RULSG series volume on Ecological Challenges and Local Self-Government Responses. *Cronyism, Development, and Citizenship: A Study of the Effects of Quarrying in the Pallichal Panchayat, Thiruvananthapuram*, with Mohanakumar S and Archana Ravi, No. 4, Ecological Challenges and Local Self-Government Responses, RULSG, CDS, Thiruvananthapuram: 2022, pp. 67-109

2. Democratic Decentralisation in Kerala: A Critique of Recent Experience

K.N.Harilal

Status : Published Chapters in a book titled *'Deepening Democracy: Comparative Perspectives on Decentralisation, Cooperativism and Self- Managed Development'*, Joseph

Tharamangalam and Jos Chathukulam (Eds.), Routledge, India.

Ongoing Studies

3. The road to safety- Examining the nexus between road infrastructure and crime in rural India

Ritika Jain and Shreya Biswas

Status : Draft completed for publication

GENDER AND DEVELOPMENT

Ongoing Studies

4. 'Keep Calm and Carry on?' The Gendered Implication of 'Resilience' for Kerala's Development

J. Devika and Anamika Ajay.

Status: - Presented at the Kerala in the World Economy Conference, Feb. 2022.

Revised for inclusion in a forthcoming volume edited by J Devika and V J Varghese from Orient Blackswan, Hyderabad.

Ongoing Research Projects

5. Child care and educated women's labour market behaviour: Evidence from Kerala

Praveena Kodoth, Tirtha Chatterjee (Principal Investigator) and Thiagu Ranganathan

Sponsor: J Pal

Status: Expected date of completion soon

6. Flexible work arrangements and gendered outcomes: Impact of COVID-19 in India

Thiagu Ranganathan and Avina Mendonca
Sponsor: ICSSR
Status: Expected date of completion: August 2024

New Initiatives/ Research Plan

7. 'Precarious Work, Women and the Pandemic: Understanding the Sociology of Covid-induced Livelihood Vulnerabilities'

J. Devika and Anamika Ajay
Sponsor: ICSSR
Status: Writing stage.

8. Does gender based human capital financial development induce total factor productivity growth in an emerging economy?

Hrishikesh Mallick, Shreya Pal & Mantu Kumar Mahalik

HUMAN DEVELOPMENT, HEALTH AND EDUCATION

Ongoing Studies

9. Intergenerational Mobility and Collective Articulation of Rights: A Case study of Mala Araya Tribal Community in Kerala

Status: Expected date of completion :2024 March

10. Information and communication technology and female employment in India

Ritika Jain and Tirtha Chatterjee
Status: Draft completed for publication

Research Plan

11. Remittances and Human Capital Formation in South Asian Economies

Hrishikesh Mallick

INDUSTRY AND TRADE

Completed Studies

12. Impact of policy on Mobile manufacturing in India

Chidambaran G. Iyer
Status: Publication under peer review

13. Phase manufacturing policy for mobile manufacturing in India: A empirical and theoretical evaluation

Chidambaran G. Iyer
Status: To be published as a chapter in an edited book – Peer review completed – Work on revised version in progress.

14. India's Regional Trade Agreements with ASEAN and UAE: The Question of Politics and Economics of Integration

K.N. Harilal and Rajesh Many
Sponsor: Seminar organised by CDS, 28-29 November 2022

15. Too risky to start a business? – Examining the relationship between crime and firm entry in India

Ritika Jain and Shreya Biswas
Status : Communicated to a journal

Completed Research Project

16. Women Owned Enterprises and its Scalability: With Particular Reference to Kerala

Beena P L
Sponsor: ICSSR
Status : Plan to publish as CDS working paper and with a reputed journal

17. Liberalisation, Resource Allocation and Aggregate Productivity Growth: A Study of Indian Manufacturing Industry

M. Parameswaran

Sponsor: ICSSR

Status: Report submitted to ICSSR and now it is being revised for journal submission.

18. Make in Kerala: Towards identifying a set of industrial products that are suitable for local manufacturing

M. Parameswaran, Sunil Mani and K N Harilal

Sponsor: Kerala Government (Kerala Migration Research Unit)

Status: Report is submitted to the Government of Kerala

19. Make in Kerala

Sunil Mani, M. Parameswaran and K N Harilal

Sponsor: Research Programme on International Migration from Kerala, CDS

Status: Expected to publish it as a journal article in a SCOPUS-indexed journal

Ongoing Studies

20. Collusion with product differentiation

Rajit Biswas and Dr Neelanjan Sen

Status: Expected date of completion: within two months

New Research Studies

21. Trade Liberalisation and Productivity dispersion in Indian Manufacturing industry.

M. Parameswaran

22. Allocative efficiency in Indian Manufacturing Industry

M. Parameswaran

INNOVATION AND TECHNOLOGY

Completed Studies

23. Information Communication Technologies and Economics

Chidambaran G. Iyer

Sponsor: ICSSR

Status: Two-week workshop (7 - 18 November 2022) conducted at CDS

24. Diffusion of digital payments in India, 2011-12 through 2020-21: Role of its sectoral system of innovation

Sunil Mani and Chidambaran G. Iyer

Status: Published in Asian Journal of Technology Innovation, DOI: 10.1080/19761597.2022.2125883

25. Entrepreneur, Innovation systems and Institutions in Emerging markets: Observations from two Indian case studies

Chidambaran G. Iyer

Status: Publication under peer review

26. Process Innovation in Low-tech industries in India: An Empirical exploration

Chidambaran G. Iyer

Status: Publication under peer review

27. Diffusion of Digital payments in India: A tale of two technologies

Chidambaran G. Iyer

Status: Publication under peer review

28. Innovation performance of two high-technologies industries from India, A comparative analysis of India's Pharmaceutical industry vis-a-vis computer software services industry

Sunil Mani

Status : Process of submitting to a refereed international journal

Ongoing Studies

29. Bivoltine Sericulture in India: An Innovation system perspective
Chidambaran G. Iyer

30. Process innovation in Medium low-tech, Medium high-tech, and High-tech industries in India
Chidambaran G. Iyer

New initiative/Research Plan

31. Implications of Mergers and Acquisitions and Antitrust issues in Knowledge and Technology Driven Economies
Beena P L
Status: New initiative

32. Diffusion of Digital payments in India: A tale of two technologies
Chidambaran G. Iyer

33. Process Innovation in Indian Pharmaceutical Industry
Chidambaran G. Iyer

New initiatives

34. Technology transfer and collusion with multiple firms and product differentiation.
Rajit Biswas and Dr Neelanjan Sen

35. Automation and employment
Sunil Mani

36. Green Technology Innovations in India: An analysis of its sectoral system of innovation
Sunil Mani

LABOUR, EMPLOYMENT AND SOCIAL SECURITY*Completed Studies*

37. Wage Productivity decoupling in India
Vinoj Abraham and Sasikumar S K
Status : Under consideration in a journal

38. Labour and employment in the coffee sector
Vinoj Abraham and Anuja V P
Status : To be published in edited volume on plantations

Completed Research Project

39. Labour and Employment in the Tea Sector
Vinoj Abraham and Anuja V P
Sponsor: NRPPD
Status : To be published in edited volume on plantations

40. Child care and Educated Women's Labour Market Behaviour: Evidence from Kerala
Thiagu Ranganathan, Tirtha Chatterjee and Praveena Kodoth
Sponsor: JPAL
Status: Submitted as a report to JPAL

Ongoing Studies

41. Return Migration and Economic Reintegration in Kerala
Vinoj Abraham and Dona M
Sponsor: Kerala in the World Economy unit at CDS, instituted by Govt. of Kerala

New initiatives

42. Rural Non-farm Sector Employment in India: Shift or Diversification
Vinoj Abraham
Status: Expected date of completion: August 2023

*Research Plan***43. Intergroup inequality in the labour market**

Vinoj Abraham

**MACROECONOMIC
PERFORMANCE***Completed Studies***44. Modern services led growth and development in a structuralist dual economy: long run implications of skilled labor constraint**

Gogol Mitra Thakur

Status: Conditionally accepted for publication at Metroeconomica

45. Natural disasters and economic dynamics: Evidence from the Kerala floods

Gogol Mitra Thakur, Robert CM Beyer and Abhinav Narayanan

Status: CDS Working Paper Series No. 508 (June 2022) [Also NIPFP Working Paper Series No. 383 (April 2022) and Policy Research Working Paper Series, The World Bank, No. 10084 (June 2022). Currently under review for journal publication]

46. Inquiry into Households' Confidence Levels in Various Institutions in India: A Temporal Assessment from the IHDS

Hrushikesh Mallick, Udaya Shankar Mishra & Balakrushna Padhi

Status : Communicated with Review of Development and Change

*Completed Research Projects***47. Long-term Trends in Revenue Mobilisation of the Indian States in the Context of Indirect Tax Reforms**

Hrushikesh Mallick

Sponsor: ICSSR

Status : To be formatted for publication

*Ongoing Studies***48. Demand-led growth, education and wage inequality**

Gogol Mitra Thakur and Pintu Parui

49. Inflation, output growth, inflation uncertainty and output growth uncertainty: a two-step approach with structural breaks

Gogol Mitra Thakur, Kushal Banik Chowdhury and Srikanta Kundu

50. Causal Relationship between Market Returns and Market Volatility in Major Crude Oil and Stock Markets of the World

Hrushikesh Mallick, Zeeshan Nezami

Status: Expected date of completion- August 2023

*Research Plan***51. Debt sustainability, fiscal response and economic policy uncertainty**

Gogol Mitra Thakur and Srikanta Kundu

*New Research Studies***52. Inflation in India: The role of imported and Domestic Factors.**

M. Parameswaran and Pulapre Balakrishnan.

Status: Expected date of Completion- July 30, 2023

MIGRATION*Completed Research Projects***53. Evidence Generation on Child Migration: A State Level Study of Tamil Nadu and Kerala**

Praveena Kodoth and Vinoj Abraham
Sponsor: UNICEF, Chennai

54. The prospects and impact of migration at the local level through a village census

Vinoj Abraham, Praveena Kodoth, Parameswaran M and Ritika Jain
Sponsor: Kerala in the World Economy Programme/CDS
 Status : Report

Ongoing Research Projects

55. When Labour and Capital Go to Work: International Mobility of Labour and Capital and Global Accumulation

KN Harilal and M Parameswaran
Sponsor: NORKA, Government of Kerala
 Status: Expected date of completion: September 2023

56. Sample survey on migration and the social and economic impacts of COVID in Kadakavoor village (second phase)

M.Parameswaran, Ritika Jain, Praveena Kodoth, and Vinoj Abraham.
Sponsor: Research Unit on Migration
 Status: Expected Date of Completion- December, 2023.

AGRICULTURE AND PLANTATION CROPS

Completed Research Projects

57. Coffee sector in India: A study of few selected issues

Chidambaran G. Iyer
Sponsor: NRPPD, CDS
 Status : To be published as chapter in the NRPPD Compendium on Plantation Crops.

58. Risk and Vulnerability of Cotton

Farmers in Vidarbha

Thiagu Ranganathan and Sarthak Gaurav
Sponsor: ICSSR
 Status: Published as a book Accidental Gamblers: Risk and Vulnerability in Vidarbha Cotton

Ongoing Research Projects

59. Performance of Rubber Producer Societies in Rubber

Vinoj Abraham
Sponsor: NRPPD
 Status: Expected date of completion: The research was to completed by March 2020, but has to be extended due to the COVID pandemic

60. Performance of Farmer Producer Organisations in Coffee

Vinoj Abraham and Mithesh Madhavan
Sponsor: NRPPD
 Status: Expected date of completion: The research was to completed by March 2020, but has to be extended due to the COVID pandemic

61. Feasibility of e-auction in rubber

Vinoj Abraham
Sponsor: NRPPD
 Status: Expected date of completion: The research was to completed by March 2020, but has to be extended due to the COVID pandemic

POLITICS AND DEVELOPMENT

Completed Studies

62. Bargaining with Goliath: Knowledge Society and Vulnerable Communities, Lessons from Kerala.

Abhilash T
 Status : Social Action (Planning to Publish)

63. Carceral Feminism and the Punitive State in Kerala State, India

J.Devika

Status: To appear in Mary Caputi and Patricia Moynagh eds, Research Handbook on Feminist Political Thought, forthcoming from Edward Elgar Publishing in 2024.

64. Nepotism, friction and labour markets

Rajit Biswas and Debojyoti Mazumder

Status : Submitted to journal

New Initiatives

65. Waiting for Elusive Justice: Adivasi Land

Question in Kerala

Abhilash T

Research Plan

66. Intergenerational Mobility and Collective Articulation of Rights: A Case study of Mala Araya Tribal Community in Kerala

Abhilash T

OTHER STUDIES

Completed Studies

67. Interference of Abortion Law on the Relationship between Economic Development and Fertility Rate of Women

Chandril Bhattacharyya Dona Ghosh

Status : Indian Journal of Finance and Banking

68. The History of Regimes of Childhood in Kerala: A Preliminary Account

J. Devika

Status: Published as CDS Working Paper 531. A revised version may appear in a volume edited by Mary E John and Janaki Nair.

69. Monetary Transmission Mechanism in Asymmetric Framework: Evidence from India

Srikanta Kundu and Irfan Ahmed Shah

Status: Revise and Resubmit for a journal

70. Risk and Return Spillover: Does liquidity of Stock Market Play a Role? Evidence from the US, the UK and India

Srikanta Kundu and Manikantha Nataraj and Pratim Das

Status: Revised and Resubmit from Journal

71. Does Economic Status Matter in the relationship among Democracy, Macroeconomics and Happiness? A Panel Data Analysis

Srikanta Kundu and Ruma Kundu and Kul Bahadur Chettri

Status: Under review in a journal

72. What Determines Child Immunisation? A Study of Socio-Economic Factors in East Sikkim

Srikanta Kundu and Ruma Kundu, Indraneel Mandal

Status: Under review in a journal

73. State Heterogeneity, Redistributive Policy and Pro-Poor Growth: Evidence from India with a special reference to Education

Srikanta Kundu and Amartya Paul

Status: To be submitted to Journal

74. External Shocks and Indian Economy

Srikanta Kundu and Irfan Ahmed Shah

Status: To be submitted to Journal

75. Macroeconomic growth and role of Economic policy Uncertainty: the case of India

Srikanta Kundu and Sandeep Pandey

Status: To be submitted to Journal

Ongoing Studies

76. Women and the Defence of *Aachaaram* in Kerala: A Historical Account in the Wake of the Neo-Savarna Disturbances around Sabarimala.

J. Devika

Status: accepted a chapter in book edited by Nissim Mannathukaren from Routledge, awaiting review report.

77. Inflation, output growth, inflation uncertainty and output growth uncertainty: a two-step approach with structural breaks

Srikanta Kundu Kushal Banik Chowdhury and Gogol Mitra Thakur

Status: Expected date of completion: December 2023

78. Debt Sustainability, Fiscal Response Function and Economic Policy Uncertainty

Srikanta Kundu and Gogol Mitra Thakur

Status: Expected date of completion: December 2023

79. Public debt sustainability and fiscal reaction function

Srikanta Kundu and Sahana Roy Chowdhury

Status: Expected date of completion: December 2023

New Initiatives

80. The extent of energy transition in Asia-Pacific Countries: A Case of Electricity Energy to mitigate the environmental Concerns of Climate Change

Hrishikesh Mallick, Kashif Nesar Rather & Mantu Kumar Mahalik

81. Economic policy uncertainty, Investor's sentiment and Stock return

Srikanta Kundu, Devika Dilipkumar and Rhythm Sparsh Narayan

Status: Expected date of completion: December 2023

82. A Comparative Assessment of Payment for Ecosystem Services (PES) and Community Action using Norms

Thiagu Ranganathan and S Krithi

Sponsor: ICIMOD

Status: Under review as SANDEE working paper

ANNUAL ACCOUNTS

CENTRE FOR DEVELOPMENT STUDIES
 ULLLOOR, THIRUVANANTHAPURAM - 695011
 BALANCE SHEET AS AT 31st MARCH, 2023

LIABILITIES	Sch	As at 31.3.2023 (Rs.)	As at 31.3.2022 (Rs.)	ASSETS	Sch	As at 31.3.2023 (Rs.)	As at 31.3.2022 (Rs.)
General Fund	A	8,31,31,155	8,51,27,841	Fixed Assets	G	8,22,84,005	8,42,80,691
Earmarked Funds	B	98,14,09,996	94,14,11,248	Investments	B	97,36,84,335	93,37,19,473
Deposits	C	15,42,545	13,70,595	Earmarked Funds			
Current Liabilities	D	30,28,637	21,26,342	Loans & Advances	H	73,87,022	64,76,437
Unspent Grant	E	5,92,114	31,15,377	Welfare Fund Loan		9,17,227	9,07,398
Sponsored Projects & Fellowships				Prepaid Expenses		3,38,639	12,15,338
Unspent Grant	F	32,03,674	1,24,32,923	TDS			
TOTAL		1,07,29,08,121	1,04,55,84,326	Current Assets	I	60,017	61,784
				Closing Stock	J	82,36,876	1,89,23,205
				Cash & Bank Balance			
				TOTAL		1,07,29,08,121	1,04,55,84,326

Notes to Accounts as per Schedule K

Banukon
 Director
 Centre for Development Studies



For KRISHNAN RETNA & ASSOCIATES
 Chartered Accountants
 FR NO - 0015848
 (A. Rethnakumar Nair)
 Partner
 M.No. 025701

CENTRE FOR DEVELOPMENT STUDIES
ULLOOR, THIRUVANANTHAPURAM - 695011

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2023

EXPENDITURE	Sch NO	31-03-2023 (Rs)	31-03-2022 (Rs)	INCOME	Sch NO	31-03-2023 (Rs)	31-03-2022 (Rs)
Faculty & Staff Cost	1	8,54,80,087	7,51,23,529	Grant in Aid			
Fellowship	2	8,74,811	11,12,631	A. From ICSSR		3,39,00,000	
Academic Development	3	1,07,90,422	76,31,045	Salary (OH -36)		50,00,000	
Repairs & Maintenance	4	83,43,172	77,91,051	Non-Salary (OH-31)Project/Research Activities)			3,44,01,600
Administrative Expenses	5	23,40,153	16,78,767	B. From Govt. of Kerala			
ICSSR Capacity Building Programme				Plan		2,18,00,000	
Sponsored Research/ Fellowship/ Projects				Total Grant (A+B)		3,76,26,550	
Expense	6	1,06,37,517	64,87,912	Less: Utilised for Capital Expenditure			5,43,02,000
Surplus & Recovery of Overheads				Research Activities to be utilised in 22-23)			8,87,03,600
Transferred to Endowment Fund	7	1,53,93,973	92,92,644	ICSSR Capacity Building Programme			
Net Income from Earmarked Funds	B	2,07,53,317	2,80,33,131	Fees Received	8	9,75,040	13,40,290
Transferred to Respective Funds				Other Income	9	39,43,196	1,48,911
Depreciation	G	1,22,84,844	1,20,90,309	Less : Transferred to Endowment Fund		37,28,094	
				Sponsored Research/ Fellowship/ Projects			
				Income Transferred	6	1,06,37,517	64,87,912
				Surplus & Recovery of Overheads			
				Transferred from Project Funds	7	1,53,93,973	92,92,644
				Interest on Investment of Earmarked Funds			
				Less : Expenditure on Funds	B	5,48,66,024	
				Less : Transfer to I&E - recoupment of deficit		1,56,51,891	
				Transfer from General Fund (Depreciation)		1,84,50,816	
				Transfer from Endowment Fund (Deficit)	G		2,80,33,131
						1,22,84,844	1,20,90,309
						1,84,50,816	1,06,97,440
TOTAL		16,69,08,296	14,93,54,807				14,93,54,807

Notes to Accounts as per Schedule K

Amilani
Director
Centre for Development Studies



For KRISHNAN RETNA & ASSOCIATES
Chartered Accountants
FRNO - 0019766
(A. Retnakumaran Nair)
Partner
M.No - 024791



Mr. Dino Corell and Dr. K Vasuki IAS addressing the Conference on Movements of People and Migration Regimes held during 8th - 10th Feb., 2023.



Inaugural Session of the Teaching Innovations Programme in Economics (TIPE-2023) held from 20th February to 3rd March, 2023.



Compendium Workshop of NRPPD held on 23rd April 2022



A Session on the Conference on Indian Economy held from 28th to 30th November 2022.



Seminar on State of Kerala's State Finances held during 5 - 7 December, 2022



CDS Museum - An impressive collection of documents about the founding of CDS



Officials and Participants of the Workshop on Database on Indian Economy Sponsored by ICSSR, Govt. of India held during 5th to 16th December, 2022



CENTRE FOR DEVELOPMENT STUDIES

(Under the aegis of Govt. of Kerala and ICSSR, Govt. of India)

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