

ANNUAL REPORT 2021-22



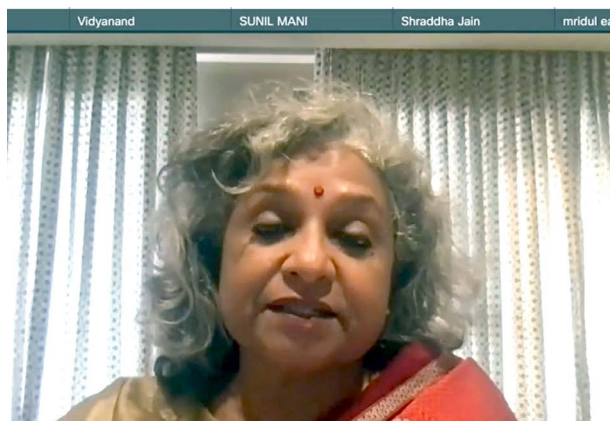
CENTRE FOR DEVELOPMENT STUDIES

THIRUVANANTHAPURAM, KERALA

(Under the aegis of Govt. of Kerala and ICSSR, Govt. of India)



Dr. Chinmay Tumbe, IIM-Ahmedabad delivering The 11th P. K. Gopalakrishnan Lecture on “Migration and Pandemics” on 22 September, 2021.



Prof. Ashwini Deshpande, Ashoka University delivering The 10th Foundation Day lecture on 20 October, 2021.



The 2nd K. N. Raj Memorial Lecture- Prof. Anand Pandian, Professor and Department Chair of Anthropology, Johns Hopkins University, USA, on 8 February, 2022.



Dr. Jong-Il YOU, Dean, KDI School of Public Policy and Management receiving a memento from Prof. Sunil Mani during the occasion of The 12th B.G. Kumar Lecture held on 21 March, 2022.



A Panel discussion on “Licensing and Regulatory Regime for Digital Banks in India” - 14 December 2021 Panellist: Prof. Partha Ray, Mr. Narayan Ramachandran, Mr. S. Ganesh Kumar, Prof. Suresh M. Babu.



Book Talk on “Governing Locally: Institutions, Policies, and Implementation in Indian Cities”, Dr. Babu Jaccob - 18 March, 2022.



Ms. Hyun Hee Ban, Chief of Social Policy, Planning and Evaluations (SPME) UNICEF India visited the Centre on 10 December 2021.



Webinar on “Towards a Critique of Economic Theory” by Prof. Prabhat Patnaik, 26 July, 2021.

CENTRE FOR DEVELOPMENT STUDIES

ANNUAL REPORT 2021-22



Centre for Development Studies

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

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GOVERNING BODY

(As on 31 March 2022)

Prof. Sudipto Mundle Senior Advisor, National Council of Applied Economic Research & Visiting Faculty, Indian School of Public Policy, New Delhi	Chairman (from January 5, 2022)
Shri . K.M. Chandrasekhar (Formerly) Cabinet Secretary, Government of India	Chairman (till January 4, 2022)
Prof. Sunil Mani Director, CDS, Thiruvananthapuram	Convenor
Prof. V. P. Mahadevan Pillai Vice Chancellor, University of Kerala, Thiruvananthapuram	Member
Prof. M. Jagadesh Kumar Vice-Chancellor, Jawaharlal Nehru University, New Delhi.	”
Mr. Teeka Ram Meena 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 Department 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	”

The Centre gratefully acknowledges support received from:



Government of Kerala



Niti Aayog

नीति आयोग
National Institution for Transforming India

NITI Aayog, Government of India



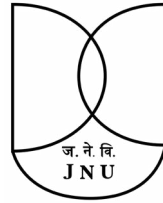
ICSSR

Indian Council of Social Science
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ज्ञान-विज्ञान विमुक्तये

University Grants Commission



ज. ने. वि.
J N U

Jawaharlal Nehru University



University of Kerala



Reserve Bank of India



Kerala State Planning Board

Kerala State Planning Board



Ministry of Commerce and Industry
Government of India

Ministry of Commerce and Industry,
Government 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.



Prof. Sudipto Mundle
Chairman



Shri. K. M. Chandrasekhar
Chairman till 04.01.2022



Prof. Sunil Mani
Director

HONORARY FELLOWS

(AS ON 31.03.2022)

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
Sivanandan P.	Former Fellow, CDS

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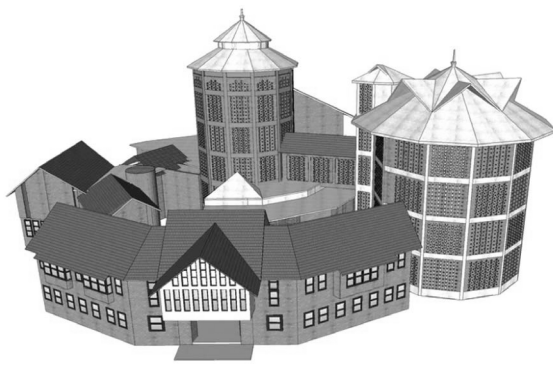
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OVERVIEW

Centre for Development Studies (CDS) was established as an autonomous social science research institute on 19 October 1970. During the last year CDS celebrated its 50th Foundation Year. It was the leadership and vision of Shri C. Achutha Menon, Chief Minister of Kerala that led to the creation of several research centres in Kerala in different disciplines related to the development of the State. In the case of CDS, he was able to persuade legendary development economist Professor K. N. Raj to set up the Centre and provide intellectual leadership. Professor Raj continued to remain the driving force behind all academic activities of CDS for over two decades. CDS was also 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 CDS campus is the result of this vision and effort of Laurie Baker.

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. In the mid-1970s, CDS became an institution affiliated to the Indian Council of Social Science Research (ICSSR) and started receiving a part of its core funding from this agency. Right from its inception, CDS emphasised on training of young researchers and it launched MPhil and PhD programmes, recognised by Jawaharlal Nehru University, New Delhi. It also ran a PhD programme affiliated to the University of Kerala

Over the last five decades or so it has produced a large collection of academic research scholars, policy analysts, economic journalists and civil

society activists. A noteworthy feature is that the research and teaching has a distinct flavour in terms of being evidence-based and very often in leading academic discourse on a variety of development topics. Several new research series, new category of research scholars, internationalization of teaching and research, new training programmes and automation of administrative functions started during the previous year are very much underway.

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 organisations for carrying out research on various dimensions of development.

Another major milestone for CDS in 2012 was the launch of its MA programme in Applied Economics. This is a unique Master's programme in Economics that aims at providing a 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). The introduction of the MA programme marked a paradigm shift in CDS's academic profile. Faculty members now devote a significant part of their time to teaching courses in this full-fledged programme, over and above their research commitments and research supervision.



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. 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.

Academic Programmes

The degree programmes – MA in Applied Economics, Integrated MPhil/PhD in Applied Economics & PhD in Economics are the three pillars of the Centre's academic activities. The MA and PhD degrees are awarded by Jawaharlal Nehru University (JNU). 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.

Under the Integrated MPhil/PhD programme introduced in 2014, 12 candidates were admitted in 2018 for the Integrated MPhil/PhD programme. As on 31st March 2022, 10 out of 12 students submitted their MPhil dissertation. One student discontinued from the PhD Programme and the other 9 students got provisional admission to the PhD Programme.

In the year 2021-22, 12 scholars were admitted for Ph.D Programme and 20 students for the MA programme. The total number of students pursuing their doctoral research during the year was 48. Four 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. Due to COVID-19 pandemic, the PIA programme which remained suspended this year is set to be revived in 2022-23.

The MA programme is now into the ninth batch. In view of the pandemic, admission process of 2021 MA programme consisted of two stages. In the first stage, candidates were short listed for an online interview on the basis of their weighted-aggregate of marks (in percentage) in Bachelor's degree. The shortlisted

candidates were called for an online interview and final selection was done solely on the basis of the interview. 1350 Applications were received. 216 candidates were shortlisted for online interview. Out of which 28 candidates were selected for 2021 MA admission. Finally 20 students 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. This year three applications were received for MA Applied Economics Programme, one from Bangladesh and two from Nepal. One candidate from Nepal joined the course. The SAARC Scholarship is made possible by the generous funding of the State government which enables our MA programme to go international.

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. Nevertheless, the Centre is able to record over 77 publications in the year 2021-22.

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

During the year the faculty was actively engaged in undertaking sponsored research projects. An ongoing study under the theme Gender and Development, on 'Precarious Work, Women and the Pandemic: Understanding the Sociology of Covid-induced Livelihood Vulnerabilities,' funded by RULSG, CDS looks into 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 during the pandemic. Another study 'Flexible Work Arrangements and Gendered Outcomes: Impact of COVID-19 in India' sponsored by the ICSSR investigates the gendered outcomes of flexible work arrangements during COVID-19 in India.

Some new studies undertaken under this theme include 'Women-owned Enterprises in Kerala and the Role of the State,' sponsored by ICSSR, 'Covid 19, Livelihoods and Interventions by Local Self Government Institutions in Kerala: An exploratory study,' funded by ICSSR Minor Research Project and 'Child Care and Educated Women's Labour Market Behaviour: Evidence from Kerala,' sponsored by the Gender and Economic Agency (GEA) Initiative RFP Summer 2021, JPAL.

Two projects under the theme Human Development, Health and Education were completed this year. The study 'Strategic Review of UNDP India,' sponsored by United Nations Development Programme answered four questions about UNDP India's functioning, detailed review of a paper on UNDP India's efforts on Inclusive Growth, and a detailed review of a paper on UNDP India's efforts on Institutional and Systems Strengthening for Service Delivery. Another study 'From Nomadism to Precarious Living: Destitution and Exclusion of Malai Pandāram in Kerala,' sponsored by ICSSR studies the half-hearted efforts for settlements without fulfilling the basic needs which not only created a number of serious problems but has storm-tossed the livelihood options of a semi-nomadic tribal community in the southern western ghat region of Kerala.

An ongoing project 'Trade Liberalisation, Resource Re-Allocation and Productivity Growth in Indian Manufacturing Industry,' under the theme Industry and Trade funded by ICSSR proposes to examine (1) The role import competition on the productivity growth of firms in Indian manufacturing industry, (2) the importance of resource re-allocation on the aggregate productivity at 2-digit level of National Industrial Classification (NIC). The study would also examine how import competition is forcing firms to catch up in terms of productivity. The ongoing CatChain project sponsored by the EU focuses on unravelling the process of Catching-up from different sectoral perspectives both at country and firm level.

A newly initiated study 'Labour and Employment in the Tea Sector,' sponsored by the NRPPD looks into the employment and working conditions of workers in the tea sector. And another study planned for the year ahead titled 'Return Migration and Employment : The Possibilities of workers cooperative in Kerala,' sponsored by CDS- Kerala in the World Economy indicates that studies show that international net migration from Kerala is slowing down. One of the ways to integrate the return migrants could be by collectivising them as workers. Both studies are under the theme Labour, Employment and Social Security.

A study planned for the year titled 'Long-term Trends in Revenue Mobilisation by the Indian States in the Context of Indirect Tax Reforms' under the research theme Macroeconomic Performance and 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.

A completed study 'Socio-Economic Impact of Migration at the local level: A study of Kaddakkavoor village – Phase 1' under the theme on Migration and Development sponsored by Kerala and World Economy Research Unit examines migration and its economic and social impact in the context of a village in Trivandrum district. An on-going study 'Kerala Transforming: Labor and Trade Mobility in times of Pandemic,' sponsored by the International Migration Unit is to be brought out as a book on completion.

Further, two ongoing projects include a study 'The Prospects and Impact of Migration at The Local Level Through a Village Census,' sponsored by Kerala in the World Economy Programme/CDS and a study on 'Evidence Generation on Child Migration: A State Level Study of Tamil Nadu and Kerala,' which is sponsored by UNICEF, India.

Four ongoing projects sponsored by the NRPPD unit of CDS under the theme Agriculture and Plantation Crops are underway titled (i). 'Capital and Labour in Tea Industry: A historical perspective,' (ii) 'Performance of Rubber Producer Societies in Rubber,' (iii) 'Performance of Farmer Producer Organisations in Coffee and (iv) 'Feasibility of e-auction in rubber'. A new initiative for this year is a project 'Research on Strategies and Policies for Large Scale Job Creation in Non Agricultural Sector in India' sponsored by FORD Foundation, USA.



New research projects initiated during the year under the theme Politics and Development include a study 'Building a Social Front of Resistance in Post-Kerala Model Kerala: The Struggle against Quarrying in the Pallichal Panchayat,' sponsored by RULSG Grant, CDS and a project 'Egalitarian Paradox: Dalits and State in Kerala' (book project) which traces the relationship between the postcolonial Kerala state and Dalits in terms of their distinct egalitarian aspirations, sponsored by the New India Foundation.

A completed study 'Beyond Aesthetic Education: The Malayali Engagement with Humanities,' sponsored by CIPSH and UNESCO offers some preliminary reflections on the shifts and transformations within the intellectual spheres of the humanities which have shaped Kerala's cultural ethos in recent decades. An ongoing projects titled 'A Comparative Assessment of Payment for Ecosystem Services (PES) and Community Action using Norms,' sponsored by ICIMOD will investigate the implications of Payment for Ecosystem Services (PES) in forest restoration and its comparison to other forest restoration measures. Another study initiated during the year 'Interstate Trade of Kerala and Its Manufacturing Sector Prospectus,' will identify the products that Kerala has been importing from and exporting to the rest of India. In the second step a short list of commodities is prepared from among the set of products that Kerala has been importing from other states on the basis of their potential for production within the state. These studies are classified under the theme of Other Studies

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. This year 11 open seminars/webinars were conducted. In addition to this, 15 seminars were given by the faculty and students. CDS also organised 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.

The 11th P. K. Gopalakrishnan Lecture on "Migration and Pandemics" was delivered by Dr. Chinmay Tumbbe, IIM-Ahmedabad, on 22 September, 2021.

10th Foundation Day lecture on "Dropping Out, Being Pushed Out or Can't Get In? Decoding Declining Labour Force Participation of Indian Women" was delivered by Prof. Ashwini Deshpande, Ashoka University, on 20 October, 2021.

The 2nd K. N. Raj Memorial Lecture on "Butterfly Crossings: Environmental Ethics in a World of Multiplying Walls" was delivered by Professor Anand Pandian, Professor and Department Chair of Anthropology, Johns Hopkins University, USA, on 8 February, 2022.

The 12th B.G. Kumar Lecture on 'The East Asian Miracle', 30 Years Later, was delivered by Dr. Jong-Il YOU, Dean, KDI School of Public Policy and Management, Sejong- si, Korea, on 21 March, 2022.

CDS has continued with its tradition of conducting short term training programmes, even though some of the programmes had to be cancelled due to the Covid-19 situation.

The CDS conducted its 'Teaching Innovations Programme for College Teachers in Economics (TIPE)' during 7 – 18 February, 2022. This year the course was offered in the online mode. A total of 17 participants attended the programme.

The regular capacity building programme for doctoral candidates of SC/ST and other marginalised groups was conducted 26th July, 2021 to 6th August, 2021. This programme, funded by ICSSR, will engage with participants and provide them with intensive training on specific basic courses that form the core to teaching applied economics with an extra focus on delivering courses specifically through online mode of teaching.

The short-term Norwegian Training Programme held for students from the Department of International Development at the Norwegian University of Life Sciences (NULS) was not possible this year also due to the pandemic.

The CDS organised 26 seminars/webinars, one national conference, 3 lectures, 4 training programmes and workshops, and 4 Public Lectures. 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 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 Amrit Mahotsav series of public lectures in January 2022 for a whole year, and it will continue as a series of monthly lectures till January 2023. Eminent scholars are being 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 3 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.

Furthering Internationalization of both teaching and research the Centre is collaborating with the Indian Institute of Space Science and Technology (IIST), Trivandrum to complement each other's teaching and research activities in humanities and social sciences. Under this collaboration the Centre's faculty will take lectures at IIST and also do joint research projects. CDS has already signed Memorandum of Agreement with UNU MERIT, Maastricht, The Netherlands, IDE and GRIPS, Tokyo and Norwegian University of Life Sciences.

Infrastructure Development

During the reporting year routine maintenance work related to the day-to-day activities and renewal of AMC's was carried out. To check the spread of the Covid 19 pandemic, special care has been taken to regularly sanitize hostel blocks and the Guest house. Maintenance of fire-fighting systems in the NH hostel and Library buildings along with procedures for obtaining an NOC from the authorities was completed during the year. The purchase of new battery sets of the UPS system in the Raj and Gulati blocks was also undertaken. A nurturing calendar which was initiated in 2019 January 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.543.02 lakh and the Indian Council of Social Science Research Rs. 344.02 lakh. The Centre earned a total income of Rs.47.96 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.354.98 lakh and Rs.183.74 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 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 2021-22. 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

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. Water Governance in Thiruvananthapuram City, Kerala: Existing Practices and Alternative Paradigms

K.N. Harilal and Srikumar Chattopadhyay (National Centre for Earth Science Studies)

Urban water governance is a challenging issue, globally. Questions are often raised about the viability of the existing practices and a new paradigm of integrated urban water management is proposed. Overcoming spatial differentiation in service delivery, providing quality service, and devising measures for source sustainability are emerging challenges of urban water management in Thiruvananthapuram city. Despite strong commitment to decentralisation, water management is fragmented and centralised with little role for the city authority. Applicability of integrated urban water management concept has been examined in the case Thiruvananthapuram city. It is suggested that participatory polycentric governance may be developed considering the city and the hinterlands and necessary space may be created to debate and evolve alternative urban water management practices suitable for the city.

Status: Published as book chapter - Srikumar Chattopadhyay and Harilal K.N. (2021), "Water Governance in Thiruvananthapuram City, Kerala: Existing Practices and Alternative Paradigms" in Baleshwar Thakur, Rajiv R. Thakur, Srikumar Chattopadhyay and Rajesh K. Abhay (Eds.) *Resource Management, Sustainable Development and Governance: Indian and International Perspectives*, Springer.

Ongoing Studies

2. Reorienting People's Planning in Kerala

K.N. Harilal

The People's Campaign for Participatory Planning in Kerala, which is celebrating its silver jubilee, 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 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. 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. 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. 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. While local plans fared well in the service sector and triggered some notable success stories in agriculture, their overall impact on the goods producing sectors, especially industry, was rather dismal. The gains in services and success stories in agriculture required more organised support to make them sustainable and replicable. Another disappointing feature was the inability to envision the future, an inalienable quality of any planning exercise. In the absence of a five year plan or an alternative vision statement, planning at the local level was reduced to

simply the preparation and implementation of annual plans. 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.

Status: Completed; awaiting publication as book chapter.

New Initiatives

3. Empowering Forest-Fringe Panchayats: A Policy Reflection on Solutions to the Shrinking Human-Wild Animal Interface in Kerala (Policy Advocacy Note)

J. Devika

The shrinking of the human-wildlife interface and the problem most exacerbated by it, namely, the heightened human-wildlife conflict, especially acute in Kerala's forest-fringe areas, is one that calls for urgent attention of policy makers for it has serious bearing upon a range of vital livelihood and health issues, including that of local food security. By human-wildlife interface, one means the space that serves as both a separator as well as one of meeting and interaction between human and non-human worlds. The shrinking of this space implies that the meeting and interaction of these worlds is now more direct and intense, which may be perceived as threatening by either. In this policy dialogue we attempt to address these issues avoiding binary thinking that sets up the interests of forest-fringe communities against that of wildlife and vice-versa, and seeking to empower local democracy in forest-fringe panchayats so that affected communities are enabled to work actively and equally with government agencies to resolve the problem. We also seek to enlarge the frame of consideration by pointing out that the human-wildlife conflict may longer be just a forest-fringe or rural concern – and hence local bodies everywhere in Kerala, including urban areas, may need to be strengthened and empowered to address it.



Status: Policy dialogue webinar conducted on 22 December 2022. (Malayalam version uploaded on CDS website in Jan. 2022, English to follow) https://cde.edu/wp-content/uploads/RULSG-Policy-Dialogue_Jan2022.pdf

GENDER AND DEVELOPMENT

Completed Studies

4. The Defence of Aacharam, Femininity, and Neo-Savarna Power in Kerala

J. Devika

This paper examines the discourse of the Ready to Wait campaign, led by highly-educated professional neo-savarna women in Kerala, against litigation to open the doors of Kerala's Sabarimala shrine which had hitherto barred women of menstruating ages from the pilgrimage. After the Supreme Court verdict in September 2018 which struck down this practice, violent protests led by neo-savarna and Sanghparivar organizations shook the state. Through a close reading of the Facebook engagement of RTW campaigner, I seek to make sense of the particular sorts of 'dissonance' they seem to be making within the male-defined space of Hindutva, the specific caste politics they represent, as well as their articulation and disarticulation with a discourse of women's empowerment and feminism. I argue that it is time that we theorize seriously the power relations between the savarna and avarna women under brahminical patriarchy, instead of singularly focusing on the subordination of the upper-caste women by the male brahminical elite.

Status: Accepted for publication in the *Indian Journal of Gender Studies*, 2020, and in a volume edited by Tanika Sarkar and Amritha Basu, from Anthem Press, forthcoming in 2021.

5. Women and the Defence of *Aacharam* 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 *aacharam* to this process. I trace the vicissitudes of *aacharam* 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 as chapter in book edited by Nissim Mannathukaren and Yasser Arafat, forthcoming in 2021, Routledge India.

6. Gendered Childhoods to Gender-Neutral Childhoods? Reflections on the History of Childhood in Kerala

J. Devika

This paper is a preliminary and tentative account of the changing regimes of childhood in Malayali society in a period that spans nearly two centuries, culminating in the present. I argue that instead of stories of linear change, we need more complex analyses of the specific 'regimes of childhood' in order to get a better grasp over the contemporary politics of childhood and its intertwining with the politics of gender. In this paper, I identify four such regimes – 'responsible parenting', 'Romantic childhood', 'aspirational regime', and 'child-governance' – which have been advanced with different degrees of success and acceptance, and an emergent fifth regime, of securitised childhood. I elaborate on these drawing from a variety of writings from the late 19th century to present-day Malayali society and the wealth of social science research on contemporary Kerala which focuses on children and youth.

Status: Presented at a seminar at ICAS organized by Janaki Nair and Mary E John. (To appear in a collection of essays edited by Janaki Nair and Mary E John from Routledge India, forthcoming)

7. The Kiss of Love Protests: A Report on Resistance to Abjection in Kerala

J. Devika

This chapter reflects broadly on the production of marginals in the context of Kerala State, India, and more specifically, on the contemporary moment in which young people face the increased risk of abjection. I attempt to make sense of this by recounting the complex historical conjecture of demographic change and economic transformation subsequent shifts in the structure and functions of the family which seems to have intensified the disciplining of youth in Kerala. Further, I interpret the Kiss of Love protests (2014–2015) which originated in Kerala but spread to other places in India as an effort not only to challenge Hindutva violence in public spaces but also as an attempt to resist the more fundamental resistance to the objection of the body and sexuality. I conclude with thoughts on further research.

Status: Chapter in Pushpesh Kumar (ed), *Sexuality, Abjection, and Queer Existence in Contemporary India*, New Delhi, Routledge, 2021.

8. Financial Incentives and Fertility Choices: Evidence from India

Ritika Jain and Tirtha Chatterjee

Can financial incentives alter fertility choices and likelihood of a female born in a household? We ask this question in the context of Indira Gandhi Matritva Sahyog Yojana (IGMSY), globally the largest maternity and child benefit scheme introduced in India since 2010-11. The scheme provides income support to mothers in the period extending from the last trimester of pregnancy through the first 6 months of the child's life, for the first two live births. Beneficiaries would get direct cash transfer if they follow the conditions of the scheme concerning registration of pregnancy, birth, ante natal visits, vaccination of the child, breast feeding among others. However, all the benefits of the scheme were limited to first two births for a woman and would not cover higher order births. Focus of the scheme on first two births might act as a signal to parents and prevent them from planning more than two children. One can also argue that choices related to fertility behaviour, particularly in a country like India are deep rooted in its social and cultural norms and financial incentives might not have any impact in influencing the same.

It is therefore, worth investigating whether transmission of any such fertility influencing signal is dependent on underlying social norms driven by son preference. If that is so then whether the household stops child birth after two children could be dependent on the gender of the first two births. Against this background, we ask three questions - (1) did IGMSY reduce the probability of women having a child post 2011 and did son preference have any role in that, (2) did the likelihood of female birth change after the scheme and once again did gender of the first two births have any role and (3) by focussing on first two births, did the design of the scheme in any way penalize the third child?

Prior to IGMSY, several schemes implemented by State and central governments have covered maternal and neonatal child health care, sex ratio at birth like Integrated Child Development Services (ICDS) from the year 1975, Devi Rupak in Haryana since 2002, Janani Suraksha Yojana (JSY) since 2005, Ladli Laxmi Yojana (LLY) in Madhya Pradesh since 2006 among many others¹. While there have been improvements in number of girl child born after JSY, infant mortality among girl children increased (Javadekar and Saxena, 2019). They point towards a substitution of pre-natal discrimination with post-natal discrimination. Anukrti, 2018 on the other hand finds that although fertility decreases, sex ratio at birth worsens in case of Devi Rupak in Haryana. Jain (2019) finds that LLY increases probability of a female birth only when the first child is a son and has no impact when first child is a daughter.

With regards to impact of IGMSY, Ghosh and Kochhar (2018) find significant improvement in health outcomes of children, and increased birth gaps between two consecutive births through primary survey in Bihar. Haaren and Klonner (2020) use data from National Family Health Survey (NFHS) - 2015-16 and find positive effects on long-term health care

1. ICDS services include supplementary nutrition, pre-school education, immunization and other health services of children between 0-6 years, adolescent girls and pregnant and nursing mothers. Devi Rupak gives financial households who have either one child or two daughters and no sons. Higher benefits are given to one daughter households compared to two daughters or one son. JSY was a conditional cash transfer program which incentivised households to encourage institutional delivery and clubbed ante-natal and maternal care services. LLY provided financial incentives to parents for having a second daughter.



utilization, and infant immunization. However, to the best of our knowledge, this is the first study which explores the unintended impact of IGMSY- on likelihood of births, sex ratio and maternal and neonatal care for higher order births.

One of the crucial requirements of the scheme is that a woman will be eligible to benefits from the scheme for first and second births. No incentives are designed for a third or any higher order birth. It is plausible that by providing support to maternal and child care for the first two births and not giving any support for higher order child, the scheme could affect fertility decisions and likelihood of having a third kid could go down post the implementation of the scheme. Lack of financial incentives could possibly dis-incentivise a woman from having a third child.

However, in India gender preference plays a vital role in determining the number of children a woman has in her lifetime. As a society, in India, sons have always been preferred to daughters for various reasons- they are considered as an economic asset since they are considered to have higher wage earning prospects and as old age support for parents. On the other hand, daughters are married off, leave parental homes and considered as an economic cost because of marriage related costs and dowries. Sons are expected to take care of the parents in their old age and according to Hindu rituals perform last rights when they die. Birth of a boy in India is seen as a celebration while birth of a girl as a crisis (Bumiller, 1991). As discussed in detail in Clark (2000) son preference influences fertility related decisions. Since gender of the foetus cannot be manipulated, people resort to sex selective abortions to reach their desired family size and gender composition of children. Since, foetal sex determination is illegal in India, parents resort to differential stopping behaviour and the simplest stopping rule is to continue having children until they reach their desired number of sons. Against this background, we have two contradictory forces at play. One, signal from the design of the scheme to encourage two births irrespective of the gender of the children and two, social norm where prospective parents stop having kids only when they arrive at their ideal number of sons.

It is therefore worth investigating whether given the context of son preference, the largest maternity benefit scheme in the world was effective in bringing changes in fertility behaviour among Indian households. To explore the role of gender composition of first two

kids on probability of births, we group the women in our sample into four groups- first two daughters, first two sons, first daughter-second son and first son-second daughter. Specifically we ask, did the scheme increase/decrease the likelihood of having a child and did sex ratio at birth change after the scheme? In particular, we ask whether any change in either fertility or sex ratio was driven by gender of the first two births. Further, studies like Jayachandran and Pande (2017) find evidence of relative neglect towards higher order children. Does it imply that given our social norms, schemes which target the first two births would accentuate the bias against higher order children?

We answer these questions through a Difference in Difference (DID) framework using data from National Family Health Survey -4 ((NFHS-4) conducted in 2015-16. IGMSY was first implemented as a pilot in December- 2010 in 52 districts (Annexure 1) of the country which were selected on the basis of parameters related to antenatal care provided to new births. We discuss these parameters in detail in Section 2 and 3. It was expanded to all regions across the country in 2017. Identification strategy that we employ in this study exploits the staggered implementation of the scheme. NFHS-4 provides data on birth histories, other household and woman specific characteristics, place of residence of interviewed women till 2015-16. We construct woman- year panel based on information provided by the interviewed women in the sample. Women who were not exposed to any scheme targeting maternity behaviour before and did not reside in the 52 IGMSY districts form our control group while those women who fall in the same group and were not beneficiaries of any pre-existing scheme and reside in those 52 districts form our treatment group.

It is plausible that control and treatment districts are different from one another in terms of maternal and ante-natal care indicators. Therefore districts which form the control group in our study have been identified after matching them with the treatment districts on the basis of indicators which were used to choose the treatment districts. Based on information collected on ante-natal and maternal care for births before 2012, we compute a matching score and match the 52 treatment districts with the control districts. We exclude all un-matched control districts from our analysis. As we will discuss later, individuals who were exposed to JSY have been dropped from our sample.

We define all births after 2011 as post treatment and on or before 2011 as pre-treatment. We test the impact of the scheme on the likelihood of having a child for potential beneficiaries in the treatment districts vis-à-vis control districts. Since the scheme was implemented from December 2010, it is plausible that some beneficiaries get excluded from our empirical analysis because of our definition of pre and post treatment. Our definition of treatment does not consider those births in 2011 as treated that could have received cash benefits. Therefore, it is conceivable that actual effects are higher than the effect size reported in the paper. One of the limitations of the study is that given data constraint, we are unable to provide causal estimates of increase in bias towards higher order child post IGMSY. This is because details on ante-natal and maternal care are provided only for last five years (since 2010). Since we do not have data on births before 2010, we are unable to estimate pre-treatment trends in treatment and control districts.

Our results broadly show that impact of the scheme on likelihood of birth is dependent on gender composition of first two children. We find that there has been a decline in likelihood of giving birth only for women who have first two sons. There is no change in the impact of women with any other child composition. However, we find no statistically significant impact in probability of female birth for only those women who have two daughters. Finally, with regards to the impact on penalizing of third and higher order births, although, we cannot provide causal evidence, our results do suggest that the scheme by incentivising pre-natal and maternal care for the first two children has penalized the third child in terms of ante-natal care given to him/her.

Status: Conditional acceptance from *Indian Economic Journal*.

Ongoing Studies

9. 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). On the one hand, they seem to be driven by individual choices in developed countries; household characteristics, social and gender norms and nature of labour demand

matter more for developing countries. India has been persistently recording low participation rates for females in comparison to other countries. As of 2012, India ranks as low as 84th out of 87 countries in female labour force participation (Kapsos et al., 2014). Further, the 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). With a large share of employment in the informal sector and abysmally low female labour force participation rates, India provides an interesting backdrop to test if ICT adoption has enabled women to enter the labour market. The current paper revisits the issue of female labour force participation in India and explicitly focuses on the role of ICT in reducing the gender divide in work participation rates in India.

Several studies in the past have provided 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.

Based on the above argument, we build three hypotheses – first, ICT adoption increases the likelihood of female employment. Second, ICT adoption also drives the likelihood of better quality jobs for women and third, it drives the nature of employment. 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 that denotes whether the individual is employed or not, second, employment quality based on type of job and third, nature of employment- casual, permanent or self-employment.

We recognize that the relationship between ICT adoption and female employment is causal only when ICT adoption is exogenous. However, 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 status and quality due to omitted variable bias and reverse causality. We use an instrumental variable estimation framework and a Heckman (1977) model to tackle endogeneity and a sample selection bias. Our instrument in the first stage is the ICT adoption by other individuals from the same village who belong to the same caste and religion.

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 both - likelihood and quality 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 ICT's role only for women in finding jobs and helping them catch up with their male counterparts, thereby reducing the gender gap in the workforce. However, with regards to the quality of employment, we find no difference across gender.

We extend our main findings to elucidate that the positive impact of ICT adoption is non-existent for the rural sector and present only for the urban sector. Additionally, ICT adoption effects are non-existent for women who have no formal education and who have casual or temporary jobs. We also examine the

role of marriage and our results show that marriage moderates the impact of ICT. Secondly, 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. Finally, our results confirm that some of the potential channels could be higher connectedness, higher access to information and higher empowerment, leading to improved employment outcomes.

Status: Expected date of completion: March 2022

Ongoing Research Projects

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

J. Devika and Anamika Ajay (RULSG, CDS)

Sponsor: Funded by RULSG, CDS.

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 informalservice 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: Initiated February 2022 - Fieldwork ongoing.

11. Flexible Work Arrangements and Gendered Outcomes: Impact of COVID-19 in India

Thiagu Ranganathan and Avina Mendonca (IIM Nagpur)

Sponsor: ICSSR

COVID-19 is a multidimensional crisis that has revealed itself on an unprecedented scale and magnitude hitherto not seen globally. It is still evolving and manifesting in more dangerous forms than previous versions suggesting that the repercussions would be long-term and can alter how humans live and function. One of the major changes ushered in by the pandemic in the paid work scenario is flexible work, i.e., work from home arrangements. While flexible

work arrangements have been found to increase productivity, happiness, employee engagement and work-life balance, they have also caused an increase in the burden of unpaid work for women, long hours and work intensification, blurring the boundaries between work and home. Against this backdrop, this study investigates the gendered outcomes of flexible work arrangements during COVID-19 in India.

The main focus of the study is to investigate the relationship between flexible work arrangements and the gendered division of unpaid domestic and care labour. In addition, the study intends to critically examine the construct of flexible work arrangements and how it plays out in the context of different genders. To this end, we investigate three interrelated research objectives in this study:

1. We explore the nature of flexible work arrangements that were followed during the pandemic (first wave lockdown, re-opening, and second wave) and investigate how they are different for men and women and across identified sectors.
2. We investigate the gendered outcomes of flexible work arrangements. That is, how men's and women's paid work hours and unpaid work hours changed during the pandemic in the light of flexible work arrangements in India and factors influencing the same. Initially, the study was planned to include two faces before COVID-19 and after COVID-19. However, given the evolving nature of COVID-19 and the advent of the second wave, we are looking at three phases, i.e., before the pandemic, period of lockdown and restrictions, and subsequent relaxation periods.
3. Understand the influence of the organization's policies and discourses, particularly related to flexible work, the division of household work

Status: Expected date of completion: June 2022

New Initiatives/ Research Plan

12. Women-owned Enterprises in Kerala and the Role of the State

Beena PL

Sponsors: ICSSR



The promotion of self-employment as a strategy for reducing unemployment or for increasing labor force activity among disadvantaged groups have been pursued by the policy makers at the global level. Government of Kerala has launched many programs to attract women in the business enterprises. However, women entrepreneurs in India face a number of challenges including societal attitudes, lack of funds, and lack of a social support structure. The proposed study aims at analysing the recent change in the structure and activities of women owned enterprises including start-ups, the role of the state in shaping such changes and the challenges faced by those enterprises in Kerala. It further assess the performance of the women-owned enterprises in terms of various indicators such as value addition, employment generation, its expansion & diversification, networking, R&D strategies and marketing. It also identify the role of educational training, location of their households, age etc in determining the ownership pattern of women enterprises and the institutional supports played by the State. It further tries to understand the motivation of women who owns the enterprise across industries and the associated struggles and difficulties based on detailed case studies. The study would make use of the secondary data such as census, Unincorporated Non-agriculture Enterprises, published by NSSO, MSME data base collected by Small scale industrial centres across districts in Kerala and PLFS data base. The aspects of linkages, market dynamics, capability-building, etc., were sought to be obtained from the enterprises and from information gathered from individuals who have played a key role in the units. This was supplemented by discussions with the agency concerned. In addition to this, a survey of women members and employees of these 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.

Status: Research Plan

13. Covid 19, Livelihoods and Interventions by Local Self Government Institutions in Kerala: An Exploratory Study.

J. Devika and Anamika Ajay (RULSG, CDS)

Sponsors: ICSSR Minor Research Project

The spread of the Covid- 19 novel coronavirus disease and the ensuing state responses have caused widespread

disruptions to the lives of millions of people in Kerala. Beyond morbidities and deaths, one of the most-severe fall outs of the pandemic has been loss of livelihoods in Kerala. It is now well known that the well-functioning system of local governance has played a central role in providing essential services and in mitigating food insecurity in Kerala in comparison to other severely affected states in Kerala. However, very little is known about the role of the LSGIs in mitigating livelihood vulnerabilities caused by the pandemic. Given the specific characteristics of and trends in labour force and labour market in Kerala, it is important to analyse the exact nature and content of the various forms of Covid-induced livelihood vulnerabilities, to assess how families and local communities are coping with the ongoing-crisis. Given this context, proposed research aims to understand the direct and indirect impact of the pandemic and the response strategies of the state and local governments on the livelihoods of the rural population in two selected Gram Panchayats in Thiruvananthapuram district which displays significant diversity in rural livelihoods. The study proposes to use mixed methods field research 1) to examine not only the direct effects of the pandemic on loss of earnings but also the indirect effects on intrahousehold dynamics and vulnerabilities, such as food insecurity, depletion of savings and assets, social isolation, and mobility loss and 2) assess the role of the LSGIs in mitigating economic vulnerabilities and ensuring sustainable livelihoods with a view to help them formulate plans to ensure their return to their vocation and sustain the livelihood.

Status: Ongoing

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

J. Devika and Anamika Ajay (RULSG, CDS)

This study 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 second section, we reflect on the antecedents of 'resilience' in Malayali development discourse from the 1990s, from the conceptualisation of the People's 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

HUMAN DEVELOPMENT, HEALTH AND EDUCATION

Completed Studies

16. Exploring Knowledge, Attitude and Practices Towards COVID-19: A Case Study in Odisha, India

Binod Kumar Behera (AIIMS Bhubaneswar) and Jitamitra Behera (Research Scholar, Nuapada, Odisha) & Hrushikesh Mallick

Practice of preventive measures for a disease like Coronavirus (COVID-19) depends on the levels of awareness/knowledge and attitude towards it, which help to control the spread of it. We conducted both online and offline surveys to understand the behavioural responses in terms of the extent of knowledge, attitude, and practice (KAP), and its relation with socio-economic and demographic conditions of respondents from a poor state like Odisha, India. It is observed that although a higher proportion of respondents have ample knowledge about basic information, preventive measures and transmission channels through social media, the Internet, TV, and radio but relatively a fewer percentage of participants have less knowledge about some of important symptoms and social distancing norms as primary measures to prevent its transmission. It has been witnessed that there is prevalence of lot of blind/unsentimental beliefs and misinformation in the society about its transmission channels. We also observed a significant difference in the KAP scores across residential locations, education levels, marital status, social groups, occupations, economic status/income levels of the participants. The knowledge on preventive measures and transmission channels are found to be inversely related to the practice of preventive measures. However, knowledge score on basic information, symptoms and attitude about COVID-19 have a positive association with the practice score. Further, making a comparative analysis of scores demonstrates that the knowledge score has a relatively weak association with the practices score as compared to the attitude score.

Status: Published in *Journal of Contemporary Studies in Epidemiology and Public Health* 2022, 3(1), pp22xxx.

development civil society in Kerala, composed of the state-wide network of women's self-help groups popularly known as the Kudumbashree. 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.

15. Child Care and Educated Women's Labour Market Behaviour: Evidence from Kerala

Tirtha Chatterjee, Praveena Kodoth and Thiagu Ranganathan

Sponsor: Gender and Economic Agency (GEA) Initiative RFP Summer 2021, JPAL- \$10,054

In the proposed study, we intend to understand the extent to which a lack of quality child care facility is a constraint to women's labour market participation in Kerala. With a relatively higher share of women who have completed higher education and a lower work force participation rate compared to all-India levels, Kerala presents an interesting case study. Low and declining female employment and rising unemployment, especially among the educated, had been marked features of Kerala's labour market over several decades in the past (Eapen and Kodoth 2004, Mathew 2015, Sebastian, 2019). However, Mathew (2015) found a shift in the pattern driven by a shrinking labour force and not an increase in employment, pointing towards a discouragement effect. Further, Sebastian (2019) found that child bearing and care responsibilities were forcing women to drop from labour market and re-enter it as unemployed or employed when children are old enough to free up their time. The high price of private child care renders it unaffordable whereas publicly provided child care is perceived to be of poor quality. Movement in, out and back into the labour force owing to child care constraints could suggest that publicly funded quality child care may increase women's employment and agency.

Status: New initiative



Completed Research Projects

17. Strategic Review of UNDP India

Chidambaran G. Iyer and Sunil Mani

Sponsor: United Nations Development Programme

Initiated in June 2021 this project was completed by October 2021. The project included answering four questions about UNDP India's functioning, detailed review of a paper on UNDP India's efforts on Inclusive Growth, and a detailed review of a paper on UNDP India's efforts on Institutional and Systems Strengthening for Service Delivery.

Status: Project completed and report submitted to UNDP

18. From Nomadism to Precarious Living: Destitution and Exclusion of MalaiPandāram in Kerala

Abhilash T and Prasant Bansode (University of Mumbai)

Sponsor: Research project funded by ICSSR in 2014-15

The half-hearted efforts for settlement without fulfilling the basic needs not only created a number of serious problems but has storm-tossed the livelihood options of MalaiPandāram—a semi-nomadic tribal community in the southern western ghat region of Kerala. The state's policy ultimately pushed them into a precarious living standards. While the attempts to resettle other hill-tribes—Malai Arayan and Kanikar—were successful but the story of Malai Pandāram is just the opposite. The study points out that the resettlement policies for Malai Pandāram need a fresh socio-economic imagination and that should be on par with their existing economy, and also in consonance with Forest Right Act, 2006. The paper demystifies the popular perception that Malai Pandāram is 'idle, shy and retiring' by analysing their interaction with outside world through education and other means over the decades.

Status: Accepted for publication in *Social Change*, 29 January 2022.

INDUSTRY AND TRADE

Completed Studies

19. Mergers & Acquisitions and Antitrust Implications: Evidence from the High-Tech Manufacturing Sector

Beena PL and Smruti Ranjan Sahoo (Doctoral Scholar)

Implementation of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) as part of the World Trade Organisation (WTO) expects to boost the technological capabilities of the industry, attract more Foreign Direct Investments (FDI) and create a competitive environment. However, it is argued that middle-income countries do not benefit from stronger IPR regimes like high and low-income countries as the positive effects from FDI and trade get offset by the negative effects due to the inability of these countries to imitate and use knowledge (Falvey et al., 2006). TRIPS can also impose a lot of additional costs on developing countries in the form of increased royalty payments, the theft of traditional knowledge and abuse of dominance (Chang, 2003; Fabre, 2015). Though there are many empirical studies on Innovation and Intellectual property, most of those studies either looked at the association of R&D and patents within manufacturing sector (Griliches, 1981; Arora, 2000; Arora, 2001; Kanwar and Evenson, 2003; Kanwar, 2012; Mani and Nelson, 2013; Basant, 2021; Dhar and Joseph, 2019) or on the technological transfer through FDI inflows and its impact on productivity (Kathuria, 2010; Kachoo, Ruchi and Madan, 2018). However, lack of attention is given to understanding the pattern of M&A deals in Indian High-Tech industries during the new IPR regime, how it later facilitates the firms/industries to be a dominant and effective player in the business and its antitrust implications. Given this context, the present chapter attempts to understand the recent trends and pattern of mergers and acquisitions in the Indian corporate sector and addresses the antitrust issues related to innovation and competition in the HT industries.

The chapter is divided into five sections. Section I discusses the trends and patterns of mergers and acquisitions in the Indian corporate sector from 2004 to 2018. Section II would highlight the significance of the study and set an analytical framework in light of the theoretical and empirical literature. Section III analyse

the distribution of size of the firms across seven HT sectors in terms of sales. The impact of M&As on the market structure, price and non-price competitive strategies of seven HT industries during the new IPR regime (2006 to 2020) has been analysed in section III. The section IV presents the results of an econometric model that is employed to examine the determinants of price cost margin (PCM) of HT industries. The last section V sums up the major findings and suggests policy implications.

Status: Chapter 9 in “Indian Economy during the Neoliberal Era: Finance, Industry and Employment”, (ed) Beena, PL, Murali Kallummam and Santosh Kumar, Routledge, India, UK, (Forthcoming 2022)

20. Indian Economy during the Neoliberal Era: Finance, Industry and Employment

Beena P L, Murali Kallummam (IIFT) and Santosh Kumar

The finance capital has evolved as the dominant factor to determine the economic realities across the developing countries accompanied by uneven bargaining structure of the WTO, which decides the terms of trade for the countries during globalisation period. Today's Indian economy results from its economic policies in place during pre and post-economic liberalisation eras. The effects of globalisation have ushered in each segment of the economy, including International finance, trade and investment, knowledge industries, technology, Service sector, Gender and employment. The current edited volume attempts to address the issues which are important for not only India but also developing countries from the point of view of emerging developmental concerns. The fourteen chapters are broadly divided across the following four thematic sections: I) International Finance and Banking; II) International Trade and Foreign Direct Investments; III) Knowledge, Industries and State Policy; IV) Labour, Gender and Development. (Macro-economic performance)

Status: Forthcoming Book -Beena P. L, Murali Kallummam and Santosh Kumar (ed) *Indian Economy during the Neoliberal Era: Finance, Industry and Employment*, Routledge, India, UK, (Forthcoming 2022).

21. 'External Sector' in 'Panel Discussion on Economic Survey 2021-22 and Union Budget 2022-23'

Chidambaran G. Iyer

The aim of the note was to summarize the view of the external sector as per the Economic Survey (ES) of 2021-22 and then contrast it with the announcements made for the external sector in Budget 2022-23. Sectors that comprise India's top ten exports require capital equipment that is not necessarily manufactured in the country. A mapping of our capabilities in the capital goods sector should have formed the basis of this decision to phase out the concessional rates in capital goods. Our capital equipment manufacturing capability is first generation while most of the manufacturing world now uses fifth generation machines. Policy should have focussed on raising local capability in the capital goods sector. The effect of the phasing out of the exemptions for capital goods imports on the competitiveness of the top ten exporting sectors is an open question. Imports of electronic item and computer hardware as per the ES continue unabated. In this context, implementation of the Phased Manufacturing Programme (PMP) for few high growth electronic items is an indication of not learning from recent experience. For example, PMP in mobile phones only encouraged assembly from semi-knocked down to completely knocked down kits, without much value addition. Trade policy, at the maximum, can act as a complement to industrial policy but not as a substitute.

The budget suggests a comprehensive review that will allow removal of exemption on items which are or can be manufactured in India and provide concessional duties on raw material used for manufacturing of intermediate products. This is welcome provided the review is institutionalized, and reflects the ground realities and results in a database or understanding that can be periodically added on to. The delay in the notification of rates for the RoDTEP is a clear example of the kind of support given by the government to exporters. The delay may have impacted the order book of many exporters in extremely competitive and job generating sectors like textiles. This may also explain the lack of diversification in terms of product and destination. Straightforward, transparent, and responsive institutions are needed if India expects these sectors to come up in the list of top exporters.

Status: Chapter in *Commentary on India's Economy and Society Series – 22*



22. Collusion under Product Differentiation

Rajit Biswas, Neelanjan Sen (Madras School of Economics) and Urvashi Tandon (Madras School of Economics).

We study the formation and stability of cartel under vertical and horizontal product differentiation under cost asymmetry. The possibility of stable cartel is lesser for an agreement that allows the lower quality-product to be produced if the relative quality difference (net of cost) increases or the horizontal product differentiation decreases when the firms maximizes 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 stable cartel falls if the relative quality difference (net of cost) falls or the horizontal product differentiation increases. As a cartel that involves side-payment has greater chances of being detected, the firms may avoid side payments and joint profit maximization. It is shown that if the firms do not maximize joint-profits and reduce output equally in the absence of side-payments, the possibility of stable cartel falls if the horizontal product differentiation falls, but it is independent of the relative quality difference net of cost. Welfare may increase after cartel formation if the lower quality good is not produced in the absence of side-payments. A similar impact on welfare is observed if the firms do not maximize joint-profits and reduce output equally in the absence of side-payments.

Status: Will submit to journal.

23. Gender Diversity, Gender Norms and Firm Performance: Evidence from India

Ritika Jain

The role of gender diversity in explaining firm performance has been discussed widely in academic research and policy debates (Smith et al. 2006; Zhang 2020 and Dupatti et al. 2019). As international organizations, governments and civil societies have been striving hard to improve women's representation by gender quota legislation, gender-based tax waivers and women's rights movements; women workforce participation has improved across countries². However, female labour force participation in India exhibits a puzzling trend for different categories (Abraham 2013).

2. Source: <https://ourworldindata.org/grapher/female-employment-to-population-ratio>

According to the 68th round of the National Sample Survey, the trend is continuously declining for rural areas. According to the World Bank (2019), the labor force participation rate (defined as the percentage of working-age employed or seeking work; henceforth, LFPR) for women in 2019 indicates India is a laggard. With a female LFPR of 23%, India is even lower than Sub-Saharan countries such as Libya (26%), Lebanon (24%) or even Pakistan (24%). In contrast, advanced economies like Germany, the US and China record a high female LFPR of above 55%.

Urban female LFPR, on the other hand, has increased marginally from 14.6% to 15.5% at the global level in the last decade (ILO 2019). This rising trend of female representation is also prevalent in Indian industry. However, within the Indian manufacturing sector, female employment has not risen across all sub-sectors. According to Mehrotra and Sinha (2019), women primarily engage in tobacco, textile and apparel industry groups. Simultaneously, female employment share in services has risen from 40% in 1999-00 to 60% in 2011-12. However, within services also women are mainly engaged in education and retail trade. These non-uniform patterns of women's representation seem to pose a contrasting picture against the growing emphasis on gender diversity as propagated by international organizations, governments and civil societies. This puzzle can be resolved by focusing on the basic question of how women's representation affects firm performance.

Several past studies support the positive effect of gender diversity on firm outcomes. Wright et al. (1995) and Roberson and Park (2007) focus on how gender diversity may act as a firm's strategic signal for increasing firm value. In a parallel strand of literature, Herring (2009) and Zhang (2020) find that gender diversity improves the financial performance of firms. Thus, there are external market gains and internal channels that contribute to improved performance due to better gender diversity. In contrast, Ibarra (1993) points out how gender diversity may distort the smooth flow of information within the organization and consequently impairs performance. Hence, it is plausible that the effect of gender diversity on firm performance is driven by the study's period, country, and context.

In the Indian context, Dupatti et al. (2019) investigate if gender diversity on boards is an effective driver for firm performance. Contrasting Singapore and India

as countries with different legislative requirements, they find that gender diversity positively affects performance in both contexts. Similarly, Sanan (2016), Sarkar and Selarka (2021), Kagzi and Guha (2016) also find a positive association between women's representation on board and firm performance. In contrast, Joshi (2017) analyses the impact of gender diversity on total output and productivity for Indian firms and finds no effect of a female board member on the outcome variables.

Against this background, this paper also examines the effect of gender diversity on firm performance. We attempt to incorporate two essential features related to gender while investigating this question. First, the employment hierarchy inside a firm may be segmented into four levels- owners, managers, permanent workers and temporary workers. Diversity of any type is beneficial to firm performance only if implemented at all levels to facilitate inclusion of different groups at each level, wider information and idea pool, and a smooth work environment. Further, diversity at the higher ownership and management levels is more critical since it enables a vast set of options and information available in the decision-making level of the firm. We attempt to take explicit account of gender diversity across various levels of the workforce.

A second important feature that we explore is societal norms and culture in conditioning the effect of gender diversity on firm performance. This will ensure that we contextualize firms in the larger society that it operates in. Societal culture affects individual approaches and attitudes to diversity that may influence how gender diversity impacts the performance of firms. For instance, better women empowerment norms in the external environment where the firm operates may accelerate the effect of gender diversity on firm performance.

This study relies on a widely used dataset, the World Bank Enterprise Survey (WBES) dataset. The WBES spans 131,000 firms across 139 countries and contains information related to financial performance, business environment, and business-government relations. The survey captures the ground realities of representation of females at the ownership, management, worker and temporary workforce level. Several studies (Bardasi et al., 2007; Asiedu et al., 2013) have used the WBES to study different aspects of gender-related issues within enterprises. In this paper, we focus on India and the 2013-14 round of WBES. We use propensity

score matching and instrumental variable regression techniques to capture the effects. We take account of gender diversity at the ownership level by focusing on firms that have multiple owners. We also re-estimate the model for firms operating in better women empowerment environments and their counterparts using state-level variables.

The results indicate that gender diversity at the ownership and managerial levels is positively associated with the profitability and productivity of firms in India. Contrastingly, gender diversity at the worker level is insignificant. A deeper examination of the results suggests that this effect is conditioned by the role of external institutions and societal norms. Firms operating in states with better women empowerment have a high positive association between performance and gender diversity. This confirms that in societies where women feel more empowered, firms also benefit from better women representation at all levels. Thus, smooth information flow, better management and functioning have positive effects on firm performance only if the societal norms are more conducive to women. These results contrast sharply for firms operating in states with poor women empowerment levels where performance is not associated with gender diversity. Overall, the results signal the vital role of societal norms and broader acceptance of women empowerment for firms to reap better benefits related to better gender diversity.

Status: Accepted at *Economic Systems*.

24. State Ownership and Dividend Decisions: Economic Versus Political Determinants

Ritika Jain

State owned enterprises (SOEs) are less efficient than private enterprises (Shleifer and Vishny, 1994; Tirole, 1994). This was the basic rationale for the burst of privatisation drives across developed and emerging economies in the late twentieth century. Several theoretical and empirical studies have examined the effect of privatization and reduced state ownership on firm performance. For instance, Matsumura (1998) and Fujiwara (2007) show that partial privatization enhances social welfare with homogeneous and differentiated demand conditions respectively. Empirically, the positive effect of partial privatization has been established by several studies (Bachiller, 2017; Gupta, 2005; Jain, 2017). These papers document the evidence of political influence



on the operational aspects of SOEs and thus, the role of partial privatization acting as an effective instrument in limiting this interference and leading to better corporate governance and performance.

A typical feature of studies discussed in this strand of literature is the focus on the effect of partial privatization on operational indicators as performance such as profitability, efficiency and productivity. Dividends, one of the most relevant indicators for shareholders, continues to be an under researched topic especially in the context of emerging economies. While there are several studies that have focused on dividend payment decisions in the context of private firms (La Porta et al., 2004; DeAngelo et al., 2006), the evidence on dividend decisions for SOEs is scanty. Dividend decisions involve management choosing to use available retained earnings to make payments to the shareholders directly. With high concentration of ownership with the government, dividend decisions are easy available options for exercising political influence. Unlike employment and privatization decisions, dividend payout decisions are less structural in nature and readily available at regular intervals. These features make dividend a susceptible and accessible tool for political interference and hence requires a careful examination.

Against this background, the current study examines how state ownership influences the decision and amount of dividend payment. We suggest that reduced state ownership implies admittance of private owners, stock market listing, movement towards a more focused objective function and better compliance with corporate governance regulation. All these factors boost the possibility and amount of dividends paid by firms. We also test the channels through which state ownership may inversely affect dividend outcomes by using the agency cost theory, the lifecycle theory and the traditional signalling theory of dividend payouts. We hypothesise that SOEs with reduced state ownership will have dividend outcomes behaving more in accordance with these theories as compared to fully state owned firms.

The second aspect that this study analyses relates to the political influence in dividend decisions and payments. Shleifer and Vishny (1994) posit how politicians use SOEs for gaining mass support by expanding employment just before elections. Since then several studies have supported this (Dinc, 2005; Cole, 2009). We argue that dividend decisions are easier

to use by politicians as compared to employment. Governments may pressurise SOEs to pay higher dividends just ahead of elections and use those rents in more populist policies and actions to increase their chances of winning. We hypothesise that dividend possibilities and amounts will be higher in the period before an upcoming election and this effect will be more pronounced in firms that have a higher share of state ownership.

We use data on all manufacturing SOEs owned by the central government of India between 2007 and 2016 to test the hypotheses. Since state ownership and dividend outcome variables are subject to endogeneity due to reverse causality, we use an instrumental variable estimation model. We find strong evidence of state ownership having a negative effect on the decision to pay dividends and the amount of dividend paid out. Recognizing, that a substantial number of firms do not pay dividends in several years during the period, we use a tobit specification in an instrumental variable framework. On interacting state ownership with variables that capture the agency cost, lifecycle and traditional signalling theory of dividends, we find strong evidence of these theories. Dividend outcomes vary inversely with state ownership. In terms of election cycles, we find strong support for firms boosting dividend payments in the two-year period ahead of an election. The effect of election cycle on dividend decisions is more pronounced in firms that have a high state ownership.

The paper attempts to contribute to the literature on how state ownership affects dividend decisions. Goyal et al (2020) find that privatization leads to higher dividend pay-outs by comparing privatized firms (firms that had a control transfer implying an ownership transfer of more than 50%) with private firms. However, the current paper focuses on Indian SOEs that have a mere dilution in state ownership with control still lying with the state. Secondly, the paper also makes a useful contribution to political influence in SOEs in India. Dividend decisions are more susceptible to political influence than other variables such as privatization and employment. The present paper is one of the earliest attempts to document this.

Status: Published in *Journal of Quantitative Economics*

*Ongoing Studies***25. 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: Expected date of completion: December 2022.

26. Phase Manufacturing Policy for Mobile Manufacturing in India: An 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: Expected date of completion: December 2022

27. Tariffs, Firm Heterogeneity and Metzler Paradox

Rajit Biswas

The purpose of the model is to try to construct a general equilibrium model that exhibits firm heterogeneity and to identify the conditions with which tariffs may fail to protect. We show that export selection criteria can potentially cause a Metzler Paradox like effect if the preferences are Quasi Linear.

Status: Ongoing

*Ongoing Research Projects***28. Trade Liberalisation, Resource Re-Allocation and Productivity Growth in Indian Manufacturing****Industry**

M. Parameswaran

Sponsor: ICSSR funded

India has been following a liberal trade and industrial policy regime since 1991. By increasing competition through trade and industrial deregulation, the reform measures aimed to enhance the efficiency and competitiveness of Indian manufacturing industry. These policy reforms can increase the aggregate productivity growth of the manufacturing industry by increasing the productivity growth of each firm as well as by stimulating the growth of more productive firms by appropriating larger market shares (see: Melitz 2003). For instance, in an open economy more productive exporting firms grow faster than the non-exporting firms. Thus, export opportunities contribute to the growth of aggregate productivity. Similarly, increased competition, including from import, forces firms to improve their productivity. The objective of the proposed study is to examine (1) The role import competition on the productivity growth of firms in Indian manufacturing industry, (2) the importance of resource re-allocation on the aggregate productivity



at 2-digit level of National Industrial Classification (NIC). The study would also examine how import competition is forcing firms to catch up in terms of productivity. An important issue while assessing the contribution of resource allocation to aggregate productivity is to account for the output price differences across firms and endogeneity of inputs. Failure to address these issues results in downward bias in the contribution of resource reallocation to productivity growth. The proposed study will use the methodology suggested by Melitz (2000) and Gandhi et al (2020) to address these issues. The study uses firm level panel data from PROWESS and consider a time period which witnessed drastic reduction in tariff and non-tariff barriers in Indian manufacturing industry.

Status: Expected date of completion: December 2022

INNOVATION AND TECHNOLOGY

Completed Studies

29. Mobile Phone Manufacturing in India: A Study of Few Characteristics

Chidambaran G. Iyer

In FY 19, India produced around 29 crore units of mobile phones, which comes to an investment of around Rs 2,780 crores, at 2017 prices. These investment figures turn out to be much lower than those reported in popular press. Original Equipment Manufacturers and Electronic Manufacturing Service firms dominate the Indian manufacturing scene. Analysis of the five-digit ASI data for 2016-17 & 2017-18 makes it apparent that the impetus towards domestic assembly of mobile phones through various policy measures has made a positive impact on the growth of investments particularly in plant & machinery assets. As a result, the direct employment generated per unit fixed asset has decreased in 2017-18. Value addition for a majority of the firms at the five-digit level was less than ten per cent in 2017-18. Electronics import under ITA-1 is another reason for such low value addition in the country. Ratio of imported vis-a-vis indigenous raw materials clearly prove the reliance of producers on imported inputs. India has the potential to become a major mobile manufacturing hub if existing policies encourage global brands to co-locate their supply systems; and

a policy to improve local capabilities by creating domestic champions in manufacturing and R&D is adopted.

Status: Published in the *Economic and Political Weekly* on 19 February 2022.

30. The Role of Industrial Policy in Market-Friendly Economies Case of Covid-19 Vaccine R&D and Its Manufacturing in India and the USA

Sunil Mani

The 1990s saw a systematic paring down of industrial policy instruments, especially in the manufacturing sectors of several developing economies. The Indian economy was one of the major ones to embrace this change to a more market-friendly environment for investments in manufacturing. Despite this newfound euphoria for markets to be at the commanding heights of an economy, knowledge production characterised by well-known market failures was sought to be supported by the state, providing various sorts of even financial subsidies. However, the 2008-2009 global financial crisis showed that markets were not necessarily efficient. Indeed, there was a broad consensus that without decisive state intervention -- which included providing lifelines to specific firms and certain industries -- the market economies of the United States and Europe may have collapsed. A similar situation arose in 2020 with the onset of a devastating pandemic, which has affected the whole world so adversely that even the economies and societies of some of the wealthiest economies are affected. Life and economic activity have become very uncertain. The only credible solution to this crisis of unimaginable proportions is the invention and commercial production of vaccines for COVID-19. According to some estimates, about 290 R&D projects are in development across the world (WHO, 2021). Among all the countries, including India, where such action was being pursued on a feverish pitch, the USA was the first country to develop and commercialise a very highly effective and safe vaccine and that too using a hitherto not tried out new messenger RNA technology. The world had placed a relatively high optimism on India as one of the most credible sources of vaccine supply to an international partnership of donors, the COVAX, to distribute vaccines, especially to other developing countries. However, India has not successfully used its large installed capacity and considerable technological capability to manufacture and distribute vaccines in general and leverage this

capability to make and diffuse COVID-19 vaccines in particular. Based on an analysis of the relevant data on the support to the market by the state for vaccine development and diffusion, we demonstrate in this paper that the contrasting experiences of two leading vaccine manufacturers could be attributed to how both countries have used industrial policy to drive vaccine development and production. The USA, which is characterised as a free market economy, did not hesitate to dust up and employ various industrial policy instruments gainfully. India, on the contrary, an economy long characterised by an extreme form of state control of economic activity, hesitated to intervene until at last fatality rates started mounting, leading even to the Supreme Court of the country to intervene, *suomoto*, and direct the authorities to put in place an effective vaccination policy. Finally, the Prime Minister announced an amended vaccine policy on the 7th of June 2021, outlining a more significant role by the state in vaccine production and distribution (Press Information Bureau, 2021). The paper thus makes out a strong case for industrial policy even in market-friendly economies and therefore adds to the renewed debate on industrial policy.

The paper is structured into five sections. Section 1 undertakes a brief survey of the renewed debate on the role of industrial policy the rationale for active

intervention by the state in knowledge production. The second section discusses the two main research questions the paper seeks to unravel. It also maps out the current status of the landscape for coronavirus vaccine research and production and the rationale for selecting the two cases of the USA and India. The third section discusses how the USA government has intervened to strengthen the capacity of its market to produce vaccines. Likewise, the fourth section discusses the Indian case. Finally, the fifth section distils out the contrasts between the USA and Indian approaches of market strengthening by their respective federal governments and concludes the paper.

The paper emphasis the continued relevance and use of industrial policy instruments even in so-called market-friendly economies where economic liberalization and privatisation policies have sought to reduce the importance of state involvement, especially in the arena of industrialization. Given the possibility of market failures in knowledge production, state intervention to support the private sector activities is a very optimal policy. Our analysis of the two contrasting cases, the USA and India, supporting the R&D and manufacturing of COVID-19 vaccines lends considerable justification for the use of industrial policy instruments to arrive at successful outcomes. Table 7 summarises the contrast between the two economies.

Contrast between India and the USA in vaccine R&D and production

Instrument of support	USA	India
Support for basic R&D on vaccine for coronavirus	Solid- long history- Federally-funded research	Weak- almost non-existent
Legislative changes	Emergency support for vaccine R&D- committed USD 2.3 billion	No strategy for vaccine development, but a system for vaccinations only- The union budget for 2021-22 has provided approximately 472 million USD equivalent but details not available
Institutional Support	Solid- Two institutional mechanisms <ul style="list-style-type: none"> • Operation Warp Speed • Use of the Defence Production Act 	Not so strong <ul style="list-style-type: none"> • NEGVAC- more on the distribution of vaccines • Vaccine Suraksha Mission- focusing more on R&D
Financial Support	Two routes- <ul style="list-style-type: none"> • Funding R&D- USD 2.32 billion • AMC- USD 24.01 billion 	Three routes- <ul style="list-style-type: none"> • Funding of R&D- USD 127.57 million • AMC- USD 542.5 million • Loan guarantee- USD 606.82
IPRs	<ul style="list-style-type: none"> • IP rights suspension for a brief period • Patent pledges by one of the manufacturer 	<ul style="list-style-type: none"> • Lobbied for its waiver • Not favouring compulsory licenses • Preferring voluntary licenses
Indemnity clauses	Nil	Nil (?)



Federal/Central government's support for improving the ease of manufacturing	Substantial through the audit reports of GAO	Ambiguous- private sector enterprises left to fend for themselves
Overall opinion about the use of industrial policy instruments	Substantial	Limited- has proceeded in two phases: before and after intervention by the Supreme Court of India
Policy outcomes		
Number of vaccines approved/ under testing	3- another three under various stages of testing	3- of which only one is based on indigenous technology- 2 are based on voluntary licenses from foreign vaccine manufacturers- another 6 are multiple stages of testing
Total vaccine production (in a million doses up to January 31 2022)	1127.26	1807.81
Self reliance in vaccine technology (per cent of domestic production based on locally developed technologies)	100	14

Source: Own compilation, Global Change Data Lab (2021)

The USA is considered to be the home of the most virulent form of capitalism. This could be seen in the pride of place accorded to private sector enterprises in that country, and it is also the home of some of the largest and most innovative companies in a range of industries. In the area of medical R&D in general and in the development of vaccines, the federal government in the USA has worked very closely with the market. What they did is easily visible from a range of instruments that the federal government has invoked to jump-start the R&D and production of vaccines for a new and unknown disease. A survey of these support instruments reveals that they have tried out every tool of state support available in the book. But the most important of which is the importance that the USA has given to fundamental research on vaccines, which eventually helped it develop highly effective vaccines within a brief period. The USA has now gone a step further in assigning a greater role for the government, even applied developmental research. This has manifested in the senate passing a new bill called *the United States Innovation and Competition Act of 2021* in early June 2021. This is an essential lesson for countries such as India that it must support basic research on vaccine development in one of its numerous public laboratories. The second lesson that the USA case has for us is the prime importance of involving the public sector. In the USA, this is confined to the performance and finance of R&D itself. In the case of India, the public sector must be involved not only in the performance and financing of R&D but also in the manufacturing of vaccines as considerable installed capacity exists in the industry.

Further, the public sector laboratories and institutes have a long history of manufacturing and supplying high-quality vaccines. They must be involved in vaccine production for COVID-19, even if it is only in the long run. In other words, the public and private sectors must complement each other. The government can play an essential role in crafting the sectoral system of innovation of the COVID-19 vaccine industry, just like what the USA has done it already. The third lesson for India is that the state must play an active and timely role in improving the availability of critical inputs for manufacturing and distributing vaccines in an industry whose value chain is globally distributed. The three issues more than indicate a more significant role for industrial policy than what is practised on an ad-hoc basis now. Recent events and discussions have shown that a historically free-market-oriented economy such as that of the USA is finding much relevance for a more significant role for industrial policy. In comparison, a historically state-directed economy such as India seems to be moving towards a more substantial role for the market with potential adverse consequences.

Status: Accepted for publication by the *Economic and Political Weekly (EPW)*. Also published as a paper in the *Commentary on India's Economy and Society Series*, <https://cds.edu/wp-content/uploads/21CommentarySeriesProfMani.pdf>

31. Diffusion of Digital Payments in India, 2011-12 to 2020-21, Role of its Sectoral System of Innovation

Sunil Mani and Chidambaran G Iyer

India has gone through a controversial policy of demonetising two of its specified bank notes, which

accounted for over 86 per cent of the currency in circulation in the country. Although the initial objective of the policy was stated to be dealing with fake Indian currency notes and reducing unaccounted income, half way through the implementation of this much-discussed policy, government's objective shifted to moving the economy to a digital one supposedly for preventing tax evasion and corruption both of which are the main conduit for the emergence and sustenance of unaccounted incomes. However, the process of creating and diffusing a digital payment system in the country started much earlier in 2007 when the RBI enunciated the *Digital Payments and Settlement Act* to provide a legal framework for digital payments to occur. This was followed in quick succession with the creation of institutions and technologies, both software and hardware, to facilitate digital payments. The union government, in its successive budgets have also provided a number of fiscal incentives for digital payments to flourish. The RBI has even designated the 2010-2020 decade as the *digital payments decade*. In the context, the purpose of the paper is to analyse the trends in diffusion of digital payments and to explain the measured trends in diffusion. In order to accomplish the latter, we employ the sectoral system of innovation framework (Malerba, 2004).

The paper is structured into seven sections. In the first section we discuss the motivation for this study. The second section engages with the existing scholarly literature on this issue essentially to make out a case for our study. The third section details the main research questions and the research problem that the paper seeks to answer and the analytical framework that is employed to answer those questions. The fourth section maps out the trends in diffusion of digital payments in India both at the aggregate and disaggregated levels. The fifth section attempts to provide an explanation for the observed trends in diffusion in terms of the three building blocks of the Sectoral System of Innovation of digital payments. The sixth section attempts at an empirical estimation of the factors that explain adoption of digital payments and the seventh section concludes the paper.

The 2000s have been characterised by a number of epoch making economic reforms in India. Among these the move towards digital transactions from cash-based one is an important one which has far reaching ways in making the economy more efficient especially in terms of formalising it somewhat. Given the fact that the digital payments in sizeable numbers

commenced from 2010 onwards, it is necessary to analyse its performance over the years and the factors that would have contributed to that performance. This is what is being analysed in our present study. So the specific reasons that have motivated us are as follows:

- The RBI has designated the 2010-2020 period as the *Digital Payments Decade*. During this decade there have been tremendous improvement in institutions and the technologies that support digital payments. Recently in the union budget for 2021-22, the government had allocated Rs 1500 crores incentivising digital transaction and especially small sized retail payments. The union budget for 2022-23 has continues these incentives.
- There were two shocks, albeit of temporary nature that would have spurred digital payments. The two shocks that would have increased the diffusion of digital payments are: (i) the demonetisation episode of 2016-17 which had removed specified bank notes which accounted for 86 per cent of the cash transactions at that time forcing people to resort to digital payments; and (ii) the pandemic period since March 2020 with its requirement for social distancing also created conditions for more contact less forms of payments to be used.
- The only available study of household level adoption of digital payments by the NPCI-PRICE (2020) had found that nearly one-third of the households surveyed across three income groups, bottom 40 per cent, the middle 40 per cent and the top 20 per cent.
- The world over the concept of Central Bank Digital Currency (CBDC) is gaining currency (Prasad, (2021). According to Atlantic Council³ which tracks introduction of CBDC 9 countries have already fully launched CBDCs in 2021 and another 87 countries (representing over 90 percent of global GDP) are exploring a CBDC. In May 2020, only 35 countries were considering a CBDC. The union budget for 23-2022 has stated that the RBI will introduce a digital currency in 23-2022. CBDC will take the country to the highest form of digital transactions.

3. See Atlantic Council, <https://www.atlanticcouncil.org/cbdctracker/> (accessed on February 5 2022)



- India is also in the process of establishing exclusive digital banks- Scheduled commercial banks to set 75 digital banking units in 75 districts (Sitaraman, 2022).

Given the growing importance of digital forms of payments, it will be interesting to analyse the progress which the country has made thus far in digital payments

The papers deal with two inter-related questions:

- Given the tremendous improvements in institutions, policies and the two shocks, albeit temporary, what has been happening to the rate of diffusion of digital payments in India?
- The factors that explain the rate of diffusion

The diffusion of digital payments in the economy is a function of its sectoral system of innovation. The sectoral innovation system consists of three building blocks, namely key actors and institutions, the technology or knowledge domain in that sector and finally, the demand for that innovation. Temporary shocks applied to enhance more significant usage of digital payments can have only a short term effect in diffusing digital payments.

The sectoral system of innovation (SSI) framework is due to Malerba (2004). The framework is conducive in explaining the catch-up process of developing countries as most developing countries focus on a specific sector of their economy to innovate and grow. For instance, the emphasis placed on innovations in the electronics sector in the catch-up economies of Korea, Taiwan, and China has really helped those countries become world leaders in specific subsectors. The argument is that innovations in a particular sector contribute to an economy's overall level of innovations. Innovations in a specific sector are supported through the interactions of three building blocks: (i) key actors and institutions and their networks, the technology domain, and the demand for innovations from consumers. Key actors and institutions can be both tangible and intangible. Tangible institutions are all those organisations such as regulatory agencies, financial institutions etc. and research institutes that generate new technologies in that sector. Intangible institutions are those which govern the legal framework and intellectual property right regime in that sector. The technology domain of the specific sector is also an important component as some sectors are characterised by very fast technological changes while in others the technologies change very

slowly. The opportunities for improved technological developments that are extremely beneficial to both producers and consumers are possible in the former where technological improvement opportunities are phenomenal while in the latter category such opportunities are very scarce. The complexity of the technology domain and the availability of sufficient human resource with the requisite skills is another contributory factor. Finally, even if there are a number of institutions and a conducive technological domain is present, the generation and diffusion of innovations may happen only when there is sufficient demand for such an innovation especially from the domestic sources. If the economic growth in the country is on a continuous decline and if the economy is in recession, one need not expect the innovations to diffuse even if they are generated somehow.

The first objective of measuring the rate of diffusion is basically accomplished through a variety of indicators such as the rate of growth of digital payments in both volume and value terms and by developing an index of digital payments and tracking its movements over the decade. The second objective is accomplished by invoking the SSI framework explained earlier. We have also attempted to empirically estimate the impact of the building blocks of the SSI by employing a regression analysis.

We have computed the year-on-year growth rates in the volume and value of all kinds of digital payments published by the RBI. RBI has introduced a change in the definition of payments that constitute digital payments in 2017-18. So there is a truncation in the data series between 2011-12 to 2016-17 and from 2017-18 through 2020-21. Annexure 1 documents these definitional changes according to the old and new formats. We have taken the five years 2011-12 through 2015-16 as the pre-demonetisation period and the three years 2018-19 through 2020-21 as the post-demonetisation period. 2017-18 may not be computed given this definitional change.

Volume growth rate peaked in 2015-16 while value growth rate peaked in 2016-17. After peaking, both of them display a declining trend. This decline is more pronounced in value terms than in volume. Surprisingly, this is also the case in 2020-21, when one would have expected more people to have used digital means of payment because of the ongoing pandemic. This is more evident when we divide the entire period into three sub-periods: pre-demonetisation (2011-12 through 2015-16), demonetisation (2016-17) and post-

demonetisation (2018-19 through 2020-21). See Table

Rate of growth of digital payments (annual percentage changes)

	Period	Volume	Value
Pre- demonetization	2011-12 to 2015-16	44.8*	14.60*
Demonetization**	2016-17	64.4	26.0
Post-demonetization***	2018-19 to 2020-21	44.7*	1.94*

* Average during the period

**Growth rate for 2017-18 cannot be computed because of the change in definition

*** Growth rate is based on the new definition as per RBI

Source: Computed from Database of Indian Economy, RBI

The diffusion of any innovation is an ongoing phenomenon. The diffusion of innovations in digital payments is bound to increase in the future, given the strong policy thrust and the possibility of the economy growing faster. The temporary shocks of demonetisation and the pandemic have not helped hasten the diffusion process, thus supporting the results of the existing literature. While demonstrated success has been achieved in those building blocks which encourage the supply of digital payments, those affecting the demand has overtaken the supply side building blocks- resulting in only the volume of digital transactions and not the value of such transactions increasing. This is thus an instance where the impact of the level of economic activity dominates the technological substitution effect- one could see this in the diffusion of other digital technologies - a fertile area for further empirical research. Government policies must strengthen all three building blocks of a sectoral innovation system, especially the demand. Only then the innovation will diffuse widely.

Status: Published as Working Paper No: 505, <https://cds.edu/publications-working-papers/>

32. India's Space Economy, 2011-12 through 2020-21, Its Size and Structure

Sunil Mani, V K Dadhwal (National Institute of Advanced Studies) and C S Shaijumon (Indian Institute of Space Science and Technology)

India has emerged as one of the major spacefaring nations in the world. It has a history of over five decades. India's space economy has several important features that merit serious attention. First, it is one of the rare examples from the country of domestic technological capability building predominantly through indigenous efforts and that too in a high technology sector. Second, these efforts were spearheaded entirely by a public sector organisation. Third, initially, the state has collaborated with a certain limited number of private sector enterprises in building up this technological capability, and of late, the role of the market in this arena has been enlarged. Fourth, it illustrates the country as a hub for generating frugal innovation in space products and services. India can manufacture and launch satellites of various sizes at a competitive cost compared to international prices; while more evident for launches, it has also demonstrated satellite manufacture. However, the space sector in India has evolved into an essential industry with a rapidly changing manufacturing component. One of the most recent developments in this area is the emergence of some startups, some having even the technological capability to design and manufacture small satellites and launch vehicles. The space economy of India is on a threshold of higher trajectory, through recent policy



changes, the government has opened the entire space sector for private sector, including the manufacturing of satellites, launch vehicles, and providing communication and remote sensing services.

Over the years, the government has accorded much emphasis on space research. It has allocated substantial portions of its budget for space research ranging from 0.9 to 0.5 per cent of its GDP. As a share of her total expenditure, India spends 2.2 per cent- much more than Germany, Italy, Japan and China and almost as much as what France is spending. But hitherto, there has not been any estimates of the economy generated by such substantial and continued expenditures on space research. This study is the first attempt at understanding the size and structure of the space economy of the country using an internationally accepted but eclectic framework developed by the OECD and the UK Space Agency. Employing the framework, it is estimated that space economy contributes around 0.23 per cent, on average, of the country's GDP. The study highlights that the size is susceptible to the size of the space budget, growing directly with it. Our exercise has decomposed the space economy into its three segments or components: space manufacturing, space operations, and space applications. Of the three space applications is, the largest one is space applications accounting for about 74 per cent, followed by space operations, about 22 per cent and finally space manufacturing, about 4 per cent. This structure is very consistent with the space economies of other countries such as the UK. Within the dominant segment of space applications, there are three major industries, namely space telecommunications, Direct to Home (DTH) Satellite TV network and space-based earth observation. Of the three, space telecommunications and space-based earth observation sub-sectors are bound to grow manifold in the foreseeable future, given supportive public policies and the likely surge in demand for location services.

This study reinforces global trends of the space economy. First, there is a worldwide attempt to delineate the contours of this intensive high-technology industry. Even in the West, statistical agencies are still proceeding on an iterative basis to estimate its size. There is no real consensus on what constitutes a spacefaring nation's space economy. This is because the space economy spans both manufacturing and services, and in several industries, space technology enters along with other technologies. So separating

space technology from other technologies used is fraught with practical difficulties. The case of the telecommunications services industry is a case in point. Second, government budgets play an essential role in creating and nurturing the space industry. Although there aren't any econometric exercises, it is generally accepted that public investments in space technology crowd in private sector investments. Third, space manufacturing and launching technology have evolved so much that even small and medium enterprises can enter this industry that has been the exclusive preserve of large public sector entities such as NASA or ISRO. Fourth, a combined effect of especially the latter two issues has led to large scale entry of private sector enterprises into the space economy that has been facilitated in India by recent policy shifts.

While this study has put a number on the size and constituents of the space economy, the next logical step is to analyse the impact of the space economy on the rest of the economy. While the preceding exercise captures the direct impacts, this new proposed study will have to capture the indirect impacts.

Status: Under review by an international refereed journal

Ongoing Studies

33. 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: Expected date of completion: March 2023.

34. Innovation Performance of Two High Technology Industries in India, The Contrast between India's Pharmaceutical and its Computer Software Industries

Sunil Mani

India's innovation performance (as measured through input and output indicators) is dominated by her pharmaceutical and IT services industries. The two sectors together constitute 18 per cent of total exports of the country, and both 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. One is a manufacturing industry, while the other is a service industry. Both the industries are clustered in specific select locations- the pharmaceutical industry is clustered in the Mumbai-Pune and Hyderabad areas, and the IT services industry in Bangalore, Hyderabad, and Chennai National Capital Regions. The study aims to compare and contrast the innovation performance of these two industries. The study will first compare the technological activities of the two sectors in terms of amounts spent on developing new technologies through in-house R&D efforts and those incurred in acquiring technology from abroad. The output of these two activities results in new inventions that are then measured using patent grants in India and abroad. Finally, the paper analyses some of the substantive issues affecting the patent regimes of the two industries

Status: Expected date of completion: December 31, 2022.

35. Diffusion of Automation Technologies across Asian Manufacturing Industry and Its Likely Effect on Manufacturing Employment

Sunil Mani

The anxiety that technology will displace jobs on a large

scale in the near future is flooding both academic and public debates, primarily in the developed world. The recent publication of a study by Oxford Martin School has predicted that a large number of occupations will see an increased rate of automation which is likely to have an adverse effect on employment, especially in the manufacturing sector. Employing a comprehensive dataset from the International Federation of Robotics, the study analyses the nature and extent of diffusion industrial robots in Asian manufacturing industry. Instead of an occupation-based approach, the study uses a task-based one, which presents a more accurate picture of the effect of automation on manufacturing employment. The Asian countries considered in the study are: Japan, Korea, China, India, Taiwan, Malaysia, Singapore, Thailand and Vietnam. The period of study is 2015 through 2020.

Status: Expected date of completion: December 31, 2022.

New Initiatives

36. Determinants of Process Innovation in Indian Industry: An Empirical Exploration

Chidambaran G. Iyer

Literature notes that it is harder to measure and capture process innovation. In this paper, an attempt is being made to empirically capture process innovation. Using five-digit level data from the Annual Survey of Industries for 2017-18, we capture the channels through which process innovation occurs in low technology industries in India.

Status: New Initiative

37. Workshop on ICT and Economics

Chidambaran G. Iyer

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 to be held at CDS in November 2022, proposes to familiarize prospective researchers with the economic understanding of ICT and the impact of ICT on economies. We intend to focus on the following themes – a) Conceptualization of ICT in economics, and diffusion of ICT in the economy; b) Impact of ICT on capital and labour markets c) Impact of ICT



on the sectors of the economy; d) The ICT industry in India and its impact on the Indian economy; e) Impact of ICT on society and governance.

Status: New Initiative

38. 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.

Status: New Initiative

LABOUR, EMPLOYMENT AND SOCIAL SECURITY

Completed Studies

39. Does Vocational training lead to self-employment in India?

Pradeep Kumar Choudhury (Zakir Hussain Centre for Educational Studies, School of Social Sciences, JNU, New Delhi, Hrushikesh Mallick & Amit Kumar (Ph.D.

Scholar, Zakir Husain Centre for Educational Studies, School of Social Sciences, JNU, New Delhi)

Using the Periodic Labour Force Survey (PLFS) data for 2017-18, the study would try to understand what motivates the self-employment of labour forces by considering gender, caste and other socio-economic characteristics in the non-agricultural sector. In this context, the study would specifically focus on examining the role of vocational education and training in raising self-employment in India.

Status: Submitted to a journal for its consideration.

40. Interlocked: Kinship and Intimate Precarity among Plantation Labour in India

Jayaseelan Raj

This article examines the employment of kinship relations in sustaining the plantation economy and in perpetuating the precariousness of child labourers who later became temporary workers in the tea plantations of Kerala, south India. Kinship ties locked diverse workers into a moral obligation of care that could easily be manipulated by plantation management as a form of labour control. Plantation capitalism, therefore, not only sustained itself through overt forms of violence but also through manipulating the precarity of employment in relation to intimate forms of love, care and obligation that were bound up with kinship ties. Kinship networks of different kinds need to be understood as integral to the plantation society and as occupying a 'cosmic place' within the capitalist order of plantations. I observe that the entangled relationship between workers' precarity and plantation capitalism can be understood only if we pay attention to the kinship networks and hierarchy.

Status: Revised for the *Journal of Royal Anthropological Institute*.

41. Does Being Educated More than the Spouse Give Women Higher Autonomy? Findings from India

Thiagu Ranganathan and Avina Mendonca (IIM Nagpur)

This paper analyses the relation between women's education relative to their spouse and their autonomy. Using a large-scale nationally representative Indian Human Development Survey (IHDS) conducted in 2011-12, we find that around 20% of married women

have education more than their spouses. Women with more education than their spouses are younger, have fewer children, and earn a higher share of household incomes as compared to those with equal or lesser education than their spouses. The multivariate regression indicates that relative spousal education is positively related to decision making autonomy and physical mobility, but it is negatively associated with emotional autonomy.

Status: Under Review in a Journal.

42. New Technology, Economy and Work: Some Conceptual Underpinnings, Labour and Development

Vinoj Abraham

ICT is pioneering a new economy through creative destruction. ICTs have the potential to accelerate productivity, de-concentrate economies, distribute income fairly and provide decent work life. Yet, contrary to expectations, ICTs seem to have added to the existing vulnerabilities of work life. Employment opportunities have increased but vulnerabilities associated with informal employment have also increased. Wages have increased for some, while wage inequality has widened. Skill is getting unevenly distributed paving way of further inequality. In the Indian economy ICT production occurs within export enclaves benefitting a few while excluding most. ICT induced employment opportunities is a welcome respite for educated unemployed youth. Yet the nature of employment through 'gig work' does not give them an escape from informality suffered by majority of the Indian workforce.

Status; published in *Labour and Development*, Vol. 28, No.2, pp. 124-132, 2021.

Ongoing Studies

43. An Assessment of Gender Inequality in Educational and Occupational Participation among Displaced Adivasi Population in Rourkela, Odisha

John Kujur (Doctoral Scholar), S Premkumar (Doctoral Scholar) & Hrushikesh Mallick

In India, while the indigenous communities are not part of the caste system, but these communities are considered to be more egalitarian than others. Comparing the women in other caste groups, adivasi

women enjoy relatively greater independence and rights in their community. Development-induced displacement as a part of nation-building process in the post-independence period, has largely constrained adivasis, especially adivasi women, from accessing their traditional livelihood and socio-economic life and setting. This process, on the other hand, exposed them to the dominant socio-economic system and consequently reshuffled the gender relation. This is quite evident among the displaced adivasi population of Rourkela (belonging to Sundergarha district), industrially prosperous city of Odisha (which happens to be a poorest state of India). Our investigation shows that a substantial gender disparity in educational and occupational status has emerged in the resettlement colonies of the displaced adivasi population. This disparity among adivasis is largely attributed to the gender-based prejudices, developed among them in the changed dominant socio-economic setting; and the existence of labour market discrimination is very much prevalent in those areas.

Status: Expected date of completion: June 2022

44. Plantation Crisis: Rupturing of Dalit Life in the Indian Tea Belt

Jayaseelan Raj

This book explores the collapse of the plantation system and the abandonment of its workforce during the recent crisis in the global tea economy. Indian tea production has been under severe crisis since the mid-nineties mainly due to the loss of world market for the Indian tea following the collapse of the USSR, the Gulf War and the neoliberal structural adjustment policies. The size of the tea industry, which is second only to China, accounts for 25 percent of global tea production, has made this a huge blow to the country's agrarian economy. As such, the economic crisis has had an enormous impact on its workforce. A major argument of the book is that the economic crisis connected with global developments have intensified what may be described as non-economic cultural processes in the continuing abjection of plantation Tamils. The workers' life under crisis is augmented by cultural and social factors such as stigmatized identities. I call the process of caste experience during the crisis context as "hidden injuries of caste." It is a critique of economic development as much as it critiques caste and other categories of identity, that stigmatise the workers and push them to the margins. Accordingly, my analysis of the crisis is oriented to go beyond the



grand narratives of the critique of capitalism and the contradictions present in its productive modes. This is so without ignoring, by any means, the importance of such analyses. It is insufficient, the book argues, to emphasize the Tamil plantation workers, for example, as an underclass independent of the cultural forces that are integral to creating the current experience of Tamil Dalits in the plantations. In other words, economic forces are intermeshed with other cultural processes such as caste, ethnicity and language in the ongoing creation of what is describe as the reduced, often highly stigmatized and abject situation of the plantation Tamils.

Status: Expected date of completion: July 1, 2022.

45. Jobs & Caste in India: Did Reservation in Higher Education bring a Change?

Tirtha Chatterjee and Thiagu Ranganathan

This study focuses on the impact of reservation in higher education, implemented in 2008 in India for Other Backward Classes, on job outcomes. We compare the impact of education reservation policy vis-à-vis reservation policy in employment implemented in 1994. Our results show that with reservation in higher education, OBCs have a higher likelihood of getting both government and private sector regular jobs whereas with reservation in jobs, the benefits were restricted to only government job. Further, we find that there is heterogeneity in impact across states and gender. OBCs in states with higher intensity of education reservation and those with a history of reservation in education before 2008 have a higher likelihood of getting jobs. While the policy led to an increase in likelihood of getting a job for both men and women, the impact for women was restricted only to government jobs. Our results suggest that reservation in higher education has a positive impact on likelihood of getting a job and compared to reservation in jobs, it seems to be widening the scope of benefits.

Status: Expected date of completion: May, 2022.

46. Wage Productivity Decoupling in India

Vinoj Abraham and Sasikumar S K (V.V. Giri National Labour Institute)

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 sector s 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: Ongoing

New Initiatives/ Research Plan

47. Labour and Employment in the Tea Sector

Vinoj Abraham and Anuja V P

Sponsors: 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: New Initiative

48. 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: New Initiative

Research Plan

49. Return Migration and Employment: The Possibilities of Worker's Cooperative in Kerala

Vinoj Abraham

Sponsors: CDS- Kerala in the World Economy

Studies show that international net migration from Kerala is slowing. one of the ways to integrate the return migrants could be by collectivising them as workers. Kerala has seen the growth and expansion of a number of collective efforts such as the MILMA, KUDUMBASREE, etc. Among worker's collectives the most famous is the ULCCS ltd that has grown into a major presence in Kerala. Apart from the job security that ULCCS and similar other collectives provide they would provide also the basic social cover required for decent living. Given the above background, this study would explore the possibilities of worker's collective formation among return migrants in Kerala.

Status: Research Plan.

MACROECONOMIC PERFORMANCE

Completed Studies

50. What Lowered Inflation in India: Monetary Policy or Commodity Prices?

M. Parameswaran and Pulapre Balakrishnan (Ashoka University)

India has seen lower inflation by historical standards, for the past five years. This has been attributed by some observers to the adoption of inflation targeting by the country's central bank, the Reserve Bank of India. In particular, it has been asserted that the taming of inflation reflects the anchoring of expectations of it through inflation targeting. We evaluate these claims. Our estimates indicate 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 fully account for the trajectory of inflation in India in terms of an explanation of inflation other than the one on which inflation targeting is premised.

Status: Submitted for journal publication.

51. Are there any Significant Differences in External and Idiosyncratic Shock Spillovers in International Sovereign Bond Markets? A Journey from Normal to Covid-19 Period for Eight Major Selected Economies

Sanjay Rout (Doctoral Scholar, CDS) and Hrushikesh Mallick



Using both the static and dynamic (rolling window) frameworks of Diebold and Yilmaz (DY), the study examines the shock spillover of sovereign bond market prices involving short (S), medium (M), and long (L) maturities between US, Japan, Germany, China, India, Russia, Indonesia, and Brazil. By carefully examining the data during 1st January 2013 to 12th November 2020, it discovered that no matter whether pre-covid-19 or covid-19 period, shock spillover of sovereign bond prices is much higher for long and medium maturity bonds relative to short maturity bond. It also clearly establishes that shock spillover increased manifold during covid-19 irrespective of their maturity period of bonds compared to pre-covid-19 period, although the magnitude of shock spillover remains low with short maturity. Thus, we conclude that investors should look for portfolio diversification and better risk management strategies while considering to invest on short-maturity bonds rather than considering bonds of any specific region in their portfolio diversification. Using alternative models, we find our results are quite robust.

Status: Under revision with Asia-Pacific Financial Markets

52. Does Urbanisation Induce Renewable Energy in Emerging Economies? The Role of Education in Energy Switching Policies

Mantu Kumar Mahalik (IIT Kharagpur), Hemachandra Padhan (Symbiosis School of Economics, Symbiosis International University, Pune), Hrushikesh Mallick and Giray Gozgor (Istanbul Medeniyet University, Faculty of Political Sciences, Department of International Relations Economic Integration Section, Turkey)

Using the unbalanced panel data spanning from 1990-2015, this study models the effects of urbanization and education levels on renewable and non-renewable energy demand for BICS (Brazil, India, China and South Africa) countries. By using the panel econometric techniques and also adding income level, industrialization and economic globalization in the estimation of energy demand function as additional predictors; the findings indicate that urbanization and economic globalization reduce renewable and non-renewable energy demand, while income level and the pattern of education (primary and secondary) levels induce it. Though industrialization is not effective in raising the demand for renewable energy, but it drives the demand for total energy and non-renewable energy.

The findings remain unchanged even for primary energy demand and is found to be robust across all the panel techniques. This clearly reveals that the pattern of education levels is not effective in curbing the use of fossil fuels and is capable of promoting the usage of renewable energy in BICS countries, while urbanization induces the pattern of energy use in an opposite way. Therefore, it suggests for the policies to tackle the energy inefficiency and check an overburdened planetary system, minimize urban anomalies and promote pro-environmental education across the BICS economies. The pro-environmental education among youth at the school and households' levels can take a long way to enhance the energy switching strategy from dirty to clean energy for achieving the energy efficiency and planetary justice in the long-run.

Status: Under review with *Energy Economics*.

53. Does Interaction of Economic Globalization with Technological Progress Affect Income Inequality in India? An Empirical Analysis

Sanjay Rout (Doctoral Scholar CDS) and Hrushikesh Mallick

This study analyses whether the impact of economic globalisation on income inequality varies with technological progress in India. Using ARDL model, this study finds that economic globalisation (in aggregate), trade globalisation, financial globalisation, and technological progress, respectively, adversely affect income distribution significantly in both short and long run.

Finally, empirical result confirmed that the interaction of economic globalization (trade and financial) with technological progress improve income distribution significantly, regardless of time, in India.

Status: Published in *Empirical Economics Letters*, 20(10): (October 2021)

54. Does Carbon Dioxide Emission Affect Life Expectancy? Insights from a Sample Of 68 Developing And Emerging Economies

Le Thai Ha & Mantu Kumar (IIT, Karagpur) & Hrushikesh Mallick

This study was likely the first of its kind to investigate the impact of carbon dioxide (CO₂) emissions on life expectancy for 68 low- and middle-income countries

for the 1990–2017 period. Toward this end, an analysis was carried out on a disaggregated basis on two dimensions: (1) the sources of CO₂ emissions (i.e., consumption-based or production-based CO₂ emissions) and (2) the level of economic development (i.e., developing or emerging) of countries. The results support the evidence of a negative association between life expectancy and CO₂ emissions for the whole sample as well as for the group of emerging countries. This finding occurred irrespective of whether the CO₂ emissions were consumption-based or production-based, suggesting that both consumption and production may reduce the life expectancy of the people in these groups of economies through the generation of harmful pollutants. In contrast, CO₂ emissions, regardless of their sources, seem to improve the life expectancy of those in the group of developing countries in our study sample. In this regard, developing countries seem to be effectively importing emissions. Our findings suggest that the favourable impact of CO₂ emissions on life expectancy is attributable to consumption rather than production. Furthermore, income growth alone cannot provide a solution for environmental degradation nor ensure a healthier life for the population.

Status: Published in *World Development Sustainability* (2022).

55. The Moderating Effects of Democracy and Technology Adaption on the Relationship between Trade Liberalisation and Carbon Emissions

Zhou Lu (Hong Kong Polytechnic University), Mantu Kumar Mahalik (IIT Kharagpur), Rui Zhao (Southwest Jiaotong University) & Hrushikesh Mallick

This paper examines carbon emission growth rates in 35 OECD economies from 1970 to 2019. It analyses the effects of trade liberalisation policy on carbon emissions in interaction with democracy. Both variables serve as potential drivers of adopting emission-reducing technologies. It is observed that trade liberalisation increases carbon dioxide emissions; however, democracy reduces the carbon emission growth rates. In addition, the interaction of trade liberalisation with democracy has a positive impact on carbon dioxide emissions. These findings mean that trade liberalisation has a lessened negative effect on carbon dioxide emissions in more democratic countries. These results indicate several policy implications for the climate change crisis, given that policymakers in democracies do a better job of providing policy

formation for climate change than autocracies.

Status: Published in *Technological Forecasting & Social Change*

New Initiatives

56. Innovation and Growth with Informal Sector

Chandril Bhattacharyya and Dibyendu Maiti (DSE)

This paper attempts to theoretically explain the inverted-U-shaped relationship between informal employment and growth rate found in the recent empirical literature. Our model is built on the literature that showed how the growth of the economy depends on the size of R&D. The extent to which the informal sector will affect the growth rate depends on various country-specific and production-related characteristics as well as on the cost of accessing the production activities in the informal sector. The paper attempts to offer a growth model in the presence of the informal sector. As the country develops, (i) the substitutability between the formal output and the informal output may fall, (ii) the labour's rights may become stronger, which increases the cost of hiring similar labour in the formal sector compared to the informal sector, (iii) government's tolerance towards informality may fall and the economy's environment may become less favourable for the informal sector, (iv) the formal sector may become more technically superior or productive compared to the informal sector, and (v) the informal sector may become less capable to use newly developed capital input varieties, because, as time goes on, the newly developed machines may require more technical expertise to use; as a result, the share of available capital input varieties used in the informal sector may fall. A decrease in the elasticity of substitution between formal and informal goods in the consumer's utility function lowers the growth rate but increases informal employment. As the labours' rights become stronger, the growth rate falls but informal employment rises. As the government becomes less tolerable towards the informal sector or the share of available capital input varieties used in the informal sector falls, the growth rate rises and informal employment falls. As the formal sector becomes more productive compared to the informal sector, up to a certain level, the growth rate falls and informal employment rises but after that, the growth rate rises and informal employment falls. We claim that the existing inverted-U-shaped relationship between



informal employment and growth rate is because of such changes in the economy.

Status: New Initiatives

57. An Exploration on the Direction of Causality between Spot Market Returns and Implied Volatility in Major Markets of Oil and Stocks during COVID Pandemic

Zeeshan Nezami (Doctoral Scholar, IIT Patna) & Hrushikesh Mallick

This research investigates the causality between spot returns and implied volatility of oil and stocks in world's major markets during the pandemic period. It finds a negative association between spot return and implied volatility in both the markets, thereby, confirming both the leverage and volatility feedback hypothesis. While It establishes a bi-directional causality between oil returns and oil implied volatility (by considering WTI) both in the short-run and long-run, it shows absence of the causality from Brent oil return to oil implied volatility. Further, while it indicates a short-run causality from stock market return to its implied volatility, but a reverse causality is observed only over the long-run. However, a uni-directional causality is found to persist from stock market return to news-based volatility only in the long-run.

Status: New Initiative

58. Demonetisation and Public Sector Enterprises

Ritika Jain

The study on Demonetisation and Public Sector Enterprises is a new initiative which is still at a nascent stage. A larger perspective of the study will emerge once the data has been analysed.

Status: New Initiative

Research Plan

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

Hrushikesh Mallick

Sponsor: ICSSR

We 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. Besides many unobserved factors affecting state tax revenues, we would investigate in particular whether tax revenues collection across the states can be attributed to the existence of loopholes in the administrative and governance system, along with revenue productivity role of the ICT infrastructures at the state levels.

Status: Research Plan

MIGRATION

Completed Studies

60. State Policy and Recruitment of Domestic Workers and Nurses to the Middle East: A Comparative Political Economy Analysis

Praveena Kodoth

This paper analyses the comparative political economy of overseas recruitment policy towards nurses and women domestic workers by examining the disproportionate influence of specific interest groups. Shocking irregularities in private recruitment of nurses forced government intervention in 2015, but subsequent interventions and failure to empower state-run agencies to compete on even terms underline the power of private recruiters. Even as the government yields to demand from destination countries and business lobbies for migrant domestic workers, it fails to hear workers' concerns about their rights. Thus, migrant workers continue to pay the price of systemic problems that plague overseas recruitment.

Status: Published in *Economic and Political Weekly*, September 4, 2021.

Completed Research Projects

61. Socio-Economic Impact of Migration at the Local Level: A Study of Kaddakkavoor Village – Phase 1

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

Sponsor: Research Programme on International Migration from Kerala, CDS

This research project examines the migration and its

economic and social impact in the context of a village. The study took Kaddakkavoor village in Trivandrum district and conducted a census of households. The census covered migration status, employment details and the impact of Covid related lockdown on migration and employment. In addition to this the census also collected information on the socio-demographic details of the households. The census covered 7488 households consisting of 26860 individuals across sixteen wards of the village panchayat. Regarding the migration status across religious groups, the census results reveal the following. Percentage of Hindu households having migrants or return migrants is 36.50 and the corresponding figures for Christians and Muslims are 50.81 and 37.93 respectively. Among social categories OBC category has highest percentage of households with migrant or return migrants. The corresponding figures for SC and ST are 20.20 and 18.18 percentages respectively. The study also looked into the impact of Covid-19 on households. The results shows that 16.4 percentage of the workers lost their job fully during the Covid lockdown and 64.6 percent partially lost their job. Similarly, 15.6 percent of the workers lost their salary or income fully and 67.9 percent lost partially during Covid lockdown.

Status: Plan is to produce some research papers on the basis of this. We are now planning to use the data collected for writing journal articles.

Ongoing Research Projects

62. “Kerala Transforming: Labor and Trade Mobility in times of Pandemic” (Book Project)

Beena P L and Thiagu Ranganathan

Sponsors: Research Programme on International Migration from Kerala, CDS

Kerala has been historically integrated with the rest of the world in terms of commodity and labour markets. Such integration has further accentuated with the liberalisation of trade and financial policies since the 1990s. While its agricultural markets have been integrated over a long period, it also generates possibly the highest share of remittances coming into India exporting human capital to west Asian countries. Kerala has experienced high levels of international migration since the 1970s. As of 2018, it has around 2.1 million emigrants (Rajan and Zachariah, 2020). Kerala

received remittances in the range of \$14-\$15 billion⁴ which is around 10% of Kerala’s GSDP. Labour migration thus plays a key role in Kerala’s employment and the economy. The Covid-19 pandemic is likely to have a huge impact on both these aspects. As on July 2020, about 500,000 emigrants have returned to Kerala⁵ and there is a huge impetus to reintegrate these return migrants into Kerala’s economy. It is in this context that this book presents a set of papers that were initially presented at the seminar that engaged with these issues.

This book describes the various aspects of Kerala’s economy, its interaction with the world economy, and the impact that Covid-19 has had on different sectors of the Kerala economy. The papers cover a wide range of sectors of Kerala economy and some of them cover issues that arose at the time of the Pandemic. The edited volume consists of 14 papers and divided into three sections primarily focusing on 1) Kerala’s Structural Transformation - High-tech or “Stunted”? - Chapters 1 to Chapter 3; II). Labour and Migration - Fluid labour or Opportunistic Mobility? - Chapters 4 to Chapter 11 and III). External Sector - Trade Surge or Deepening Vulnerabilities? - Chapters 12 to Chapter 14.

Status: Expected date of completion: May 2022 (Book Proposal is cleared by Routledge)

63. The Prospects and Impact of Migration at The Local Level Through a Village Census

Vinoj Abraham, Praveena Kodoth, Parameswaran M and Ritika Jain

Sponsors: Research Programme on International Migration from Kerala, 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

4. <https://theprint.in/economy/keralas-14-15-bn-2019-remittances-could-see-2-bn-drop-this-year-world-bank-expert/455922/>

5. <https://www.livemint.com/news/india/2-384-people-among-4-99-529-returned-to-kerala-so-far-test-covid-19-positive-cm-11594165346005.html>



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: The research was to be completed by March 2020, but has to be extended due to the COVID pandemic

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

Vinoj Abraham and Praveena Kodoth

Sponsors: UNICEF, India

Child migrants at the lowest level of economic class are subject to severe deprivations and 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 – according to research based on analysis of macro data. Micro studies provide detailed evidence of exploitation, material deprivations and disenfranchisement of child migrants, which however is 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. It is necessary to generate this evidence in order to make a strong case for a definitive policy to address the deprivations and disenfranchisement of child migrants. This study seeks to generate such for 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.

Status: Ongoing

AGRICULTURE AND PLANTATION CROPS

Completed Studies

65. Globalisation of Agriculture and Atomisation of Farming: Small Farms Crisis in Asia

K.N. Harilal

Agriculture in Asia is being pushed into a new policy regime that uncritically promotes free trade and *laissez faire* policies. The WTO Agreement on Agriculture (AoA), regional Preferential Trading Arrangements (PTAs) and neoliberal policies pursued by the individual nations are the central features of the new regime. The new regime is built disregarding the existing knowledge on commodities that they are prone to market failures, which are unlikely to be corrected if left unregulated. In this paper we have tried to portray the new regime in terms of two defining processes that are at work, viz. globalisation of agriculture and atomisation of farming. Globalisation happens on account of integration of the agricultural markets at local, provincial, national and global levels. Atomisation of farming occurs due to fragmentation of holdings on the one hand and weakening of collective action of farmers on the other. In the farming end of the value

chains millions of small farms, who lack any market power whatsoever, compete among themselves. The post harvesting nodes have fewer and larger firms. As we have argued at length the large firms inhabiting the postharvest nodes of the commodity chains are capable of extracting profit out of volatilities in the market. The non-farm nodes are characterised by economies of scale and possible accumulation of market power. Such profiteering will be at the expense of the atomised farms as well as the final consumers of the commodities. The policy has become suddenly very active in abetting competition upstream and limiting it downstream. It legitimises entry barriers downstream and intervenes directly to promote entry, augment supply/ competition upstream. It does not want to intervene in the market to save producers from commodity problems; instead favours players profiteering out of such possible instances of market failure. Obviously, such policy cannot be sustainable for its economic and social consequences.

Status: Published in *Journal 'Millennial Asia'*, Harilal K.N. (2021), "Globalisation of Agriculture and Atomisation of Farming: Small Farms Crisis in Asia", 12 (3), 298-315, *Millennial Asia*

66. Area, Production and Productivity of Natural Rubber in India

Sunil Mani

Natural Rubber (NR) is an essential agricultural raw material used in the manufacturing industry, broadly divided into the tyre and non-tyre sectors. India is currently (c2021) the 6th largest producer of NR in the world. The country has a relatively long history of over 120 years in the production of NR. NR has also registered the highest growth in productivity over the years among all crops in the country. However, there has been a precipitous decline or stagnation in productivity in more recent times. Among the major NR producing countries of the world, India and China are the only two producing and consuming sectors. The success of the NR sector in India is inexorably linked to the quantity and quality of state intervention in the production of NR, and government intervention in the crop has a history of over seven decades. In this context, the paper aims to understand the nature and extent of government intervention in the production and consumption of NR. Government intervention has sought to promote both extensive and intensive cultivation.

Towards this, the paper is structured into four broad sections. Section 1 will map out the history of NR production in the country from 1902 through 2021. Based essentially on the nature of government intervention, the historical evolution of the industry is divided into four phases. Section 2 will analyse the trends in the area, production and productivity of NR in the fourth phase, characterised by a gradual withdrawal of the state and a much more opening up of the domestic rubber production sector to external competition. Section 3 will analyse the government's role in increasing the production and productivity of NR. Section 4 concludes the paper.

The study surveyed trends in the area, production, and productivity of NR over a long period, emphasising the 4th phase, which began in 2000. The study identified six different NR cultivation and production features during the phase. NR continues to be a smallholder crop. Although production has increased, it has been contributed more by area expansion than through yield improvements. NR cultivation has now been diversified, with the traditional states of Kerala and Tamil Nadu being supplemented with production emanating from the North-Eastern states and Karnataka. The explanation for extensive cultivation as the primary source of growth of NR output could be seen in two factors. First is the supply response from growers from traditional areas who were negatively impacted by low domestic prices. This forced them to abandon tapping their tappable or mature area to a certain extent. Second is the conscious policy of the government to extend NR cultivation to the North-Eastern region, especially to increase domestic output as a part of a strategy of import substitution in the supply of NR that has been practised right through the beginning. The degree of import substitution has decreased over time. The Rubber Board continues to be a crucial institutional agency for supporting NR cultivation in the country, although recent government intervention sought to prune its activities. Over the years, its research wing has a very record in developing a whole host of technologies.

Status: Will eventually be published as a chapter in *Compendium on Plantation Crops*



Ongoing Research Projects

67. Capital and Labour in Tea Industry: A historical perspective

Thiagu Ranganathan and Tirtha Chatterjee

Sponsors: NRPPD

Tea⁶ is one among the distinctive tropical crops in the world and India in particular has been a pioneer in tea production. Indian Tea as a commodity encompasses an intriguing ecological, socio-political and labour history over the past 180 years with regards to production in India. Across the world, history of tea trade and production along with other commodities like cotton, and sugar is closely related to the history of capitalism itself.⁷ As much as tea appears to be a humble drink that supposedly promotes “intemperance”, production and trade of tea has led to wars at times and severe labour exploitation at other. They have also caused speculative *manias* that have crushed many enterprises by cultivating false hopes of ever increasing value. As a case in point, production of tea in India involves several of these intricacies and these aspects need to be discussed while documenting tea production in the country.

There have been very few commodities in the world including tea, cotton, and sugar that have widely spread across the world through varied series of dramatic events. These commodities have played a significant role in development of capitalism the way it is. In particular, tea and sugar which look like

6. The tea plant as we know is largely of two main varieties and is noted to have up to 3.4% caffeine in it. The two most common varieties of tea available to us are *Camellia Sinesis* which wild in China as a hard shrub or a small tree from 3 to 18 feet high and *Camellia Sinesis Assamica* which grows in South and Southeast Asia in India, China, Srilanka and can grow really tall up to 45 feet. Refer to Mair, V. H., & Hoh, E. (2012). The true history of tea. Thames & Hudson. Chapter 2.

7. For an excellent discussion of how tea trade and production in China and India is closely related to expansion of Capitalism, refer to Liu, A. B. (2020). Tea War: A History of Capitalism in China and India. Yale University. For a study of centrality of cotton in the growth of capitalism, refer to Beckert, S. (2015). Empire of cotton: A global history. Vintage. There are also studies on centrality of commodities like sugar in the power relations between countries like Mintz, Sidney W. (1986). Sweetness and power: The place of sugar in modern history. Penguin.

simple consumption goods have over the years played a big role in scripting booms and busts across the globe. They have also played a significant role in the way capital and labour relations have been shaped in different countries. The arrival of tea in India was in the background of an urgent need for the British in finding an alternate source of tea other than China. The Opium trade, which financed tea purchase for the British, had caused enormous damage to China which led to Opium wars in the 19th Century. Tea announced its arrival in India in around the same period and with a “Tea Mania” in 1860s imprints its presence in the country. The constraints of maintaining low prices to compete with China tea and profitability of plantations left the British to resort to very low wages for the labour. The British resolved the issue related to reluctance of the labourers to work at low wages by creating several punitive labour laws. The law enacted to make labour subservient to the tea plantations has had a huge impact on capital-labour relationship in the tea sector for more than a century. The labour resistance and Indian nationalism combined together to pave way for labour reform pre-independence and just after independence.

Post-independence, there are various efforts to infuse Indian capital into tea sector which gets realised in a satisfactory manner only in the 1970s. During these years there are also serious efforts at developing a domestic market for tea and trade for tea across various countries. These efforts pay its dividends and India built a robust tea economy comprising not just of plantations but also a significant number of small tea growers by the 2000s. Over time, tea production by the small tea growers almost contributes as much as that of plantation estates. Over the next few years though, tea production by other countries like Kenya and Sri Lanka and the fall of Soviet Empire on which India almost had a monopoly rights to import has brought in a severe crisis in the tea sector over the last two decades.

An overview of tea production in India is incomplete if we do not cover the wide canvas of events that tea as a commodity has triggered world-wide. Hence, we proceed with our analysis by looking at the three aspects of tea production. First, we dig into dramatic conditions under which tea arrives in India. Till the 19th Century, tea was referred as a “China drink” which spread across various Asian and European countries over decades. A balance of trade crisis for the Colonial England triggered Opium trade with China and the

Indian colony got entangled in this. It is at this juncture when there were fears of China making Opium trade legal and England losing out on the deal that the British find tea grown in Assam. We dig into this history to present the initiation of tea production in India in the 19th Century. Second, we provide an overview of tea production in Colonial India. The laws imposed for tea production and marketing in the Colonial era had severe ramifications for what happened to tea sector later and hence we describe this in detail. Third, we analyse tea production in the post-colonial era. In the post-colonial era, there are two important phases. The first phase involves infusion of Indian capital into tea sector while tea production is still dominated by plantation estates. The second phase is the emergence and growth of tea production by small tea growers (STGs). We also discuss the implications of these and tea production in this phase in detail.

Status: Expected date of completion: June 2022.

68. 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: The research was to be completed by March 2020, but has to be extended due to the COVID

pandemic

69. Performance of Farmer Producer Organisations in Coffee

Vinoj Abraham and Mithesh Madhavan (Research Associate, NRPPD)

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.

1. Type of FPOs, their legal structure and administrative structure – profit or non-profit organisations, membership criteria, stakeholders etc
2. Ways to achieve international standards - organic farming, sustainable farming, fair trade practices etc
3. What role do they play in facilitating coffee cultivation – subsidising inputs, marketing, credit, curing and processing coffee, etc
4. Member characteristics and comparison between member and non-member coffee growers

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

70. Feasibility of e-auction in rubber

Vinoj Abraham

Sponsors: 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)⁸ 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

8. 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.

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 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: The research was to completed by March 2020, but has to be extended due to the COVID Pandemic.

New Initiatives

71. Coffee Sector in India: A Study of Few Selected Issues

Chidambaran G. Iyer

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. 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.

Status: New Initiative

POLITICS AND DEVELOPMENT

Completed Studies

72. Another Wave of Forest and Adivasi Land Alienation? Revenue versus Forest *Pattayam* and Adivasi Land Question in Kerala

Abhilash T and K. H Amita Bachan (MES Asmabi College, Kodungallur)

This paper examines Kerala government's decision to issue revenue land rights for individuals including scheduled caste and scheduled tribes in few districts and a circular issued by the state forest department in order to do away with the myriad of issues associated with the implementation of the Forest Right Act, 2006 (FRA) in the state. Such a blithe decision in the wake of the ongoing Covid-19 pandemic has raised not only suspicion among the community but also triggered arguments and counter arguments between major tribal groups and activists in the state. These documents seem to be a clear violation of FRA and it might help the government and private land mafia to acquire tribal land for large scale commercial use, which will further exacerbate the adivasi land alienation in the state.

Status : Published in *ArthaVijnana*, Vol. No.LXIV (64), Issue No.1 Page: 75-87 (March, 2022) (<http://www.isscholar.in/index.php/ArthaVij>)

73. Postcolonial Caste, Ambedkar, and the Politics of Counter-Narrative

Jayaseelan Raj

This article examines the way caste is captured within the dominant and popular scholarly tradition of post-colonialism. It will also explore how Ambedkar's anthropological emphasis on the centrality of sociocultural relations for understanding caste dynamics opens up the limitation of a post-colonial understanding of caste. In doing so, the paper is oriented to advance the Dalit-centric historical anthropology of caste. The focus on the relationship between competing discourses on the histories of caste will provide critical insights into how Dalit movements negotiate with various politics of knowledge to develop varied pathways of progress for Dalits and other marginalized communities.

Status: Revised for: *History and Anthropology*

74. The Politics of State-level COVID-19 responses in India: Evidence from the first wave in 2020

Ritika Jain and Tirtha Chatterjee

Early evidence of COVID-19 pandemic management from China indicated that social distancing was an immediate effective tool (Fang et al 2020). As a result, several countries quickly adopted this by introducing measures ranging from travel restrictions to stringent lockdowns. Such non-pharmaceutical interventions imply a trade-off between smooth functioning of economic activity (livelihoods) and rise in the level of infections (lives) thus causing adverse health consequences (Alvarez et al 2020 and Ghosh et al 2020a).

Testing is another effective policy tool to gauge the spread of COVID-19 infection. Abundant and accurate tests are critical in containing the infection spread by timely detection of the infected, isolation and adequate care of the infected. Moreover, testing is an effective signal for community transmission. A higher proportion of positive test signals the need to practice social distancing, wear masks and avoid further spikes in transmission. Thus, testing is instrumental in constraining future infections and deaths.



Against this background, we use the two policy interventions of lockdown and testing to examine the state level COVID-19 response in India. After a strict six-week nationwide lockdown in India spanning over April and May, the Centre transferred the decision of lockdown imposition to individual states. What followed was a huge variation in state-level lockdown policies with stringency varying within states and over days of the week. This provides us with an excellent opportunity to examine the difference in approaches state governments undertook to control the pandemic at the sub-national level. Based on election timings, political competition, federal structure and anti-incumbency sentiments that dominate the landscape of political systems in India, we identify four salient political factors that could influence COVID-19 response by the state governments. Next, by grouping states according to these measures, we explore if there is a specific pattern in which the two instruments of testing and lockdown were implemented.

It is likely that spread and severity of COVID-19 determined the policy choices made by the governments. Therefore, while analysing the role of political factors we control for the same in a unique manner. Instead of comparing states at a daily interval, we deviate from the calendar-based approach to the timescale defined as the rise in COVID-19 spread. This ensures a fair comparison of interstate responses after taking explicit account of the pace of COVID-19 spread. Additionally, this approach allows us to indirectly control for all pre-existing differences including institutional quality, medical infrastructure and other socio-economic characteristics among states through the rise of COVID-19 spread⁹.

Our main findings are as follows. All Indian states have increased their testing rate and lockdown stringency overtime and exhibit a pattern where states with upcoming elections have a higher testing rate as compared to states with elections on a later date. Similarly, state governments facing a strong opposition, that were not in power in the previous term and that belong to the same party that runs at the Centre, have a higher testing rate as compared to the other relevant groups. We also find that this group

9. Past studies have found that states with weak institutions, poor health infrastructure and greater distance from urban hotspots witnessed higher COVID-19 cases and deaths (Ghosh et al., 2020a; Jain and Chatterjee, 2020; Balakrishnan and Namboodhri, 2021).

of states responded with a less stringent lockdown for the same rise in COVID-19 spread implying that along with aggressive testing, these states were also trying to avoid disruptions in economic activity, which may be beneficial in gathering higher vote bank for the next elections.

Overall, we find strong evidence of the role of political factors in panning out COVID-19 policy responses by the states of India. We validate these findings by using an alternate measure of lockdown stringency. We also try to compare the state-level responses to rise in mortality rates as against the case spread. Our findings are valid for both extensions.

Status: Conditional acceptance from *Indian Economic Journal*.

Ongoing Studies

75. Beyond the Romantic Idealism: State intervention and inclusion of Adivasis in 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 the 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: Expected date of completion: October, 2022

New Initiatives

76. “Invisible in Day Light”, How Marginalized are being made invisible in a Developed Society: A Case Study of Adivasis in Kerala.

Abhilash T

It can be observed that the core issues, land and control over the resources, in the developmental question of Adivasis in the state are slowly being diverted into a different direction by the state. A close analysis of the budget allocation and priorities set by the state seems to be less concerned about the restoration of the historical rights of these most vulnerable populations in the state. It seems the more significant land question has been metamorphosed into a mere ‘housing problem’, in which the state focusses only upon policies that are convenient to implement in accordance with the electoral calculations that obscure the underlying issues faced by the tribal communities in the state. Therefore, this research will enquire about the factors contributing to this phenomenon in a socially and developed and politically conscious state like Kerala. Beginning with civil society’s responses towards the home-grown adivasi movements, it will evaluate the perceptions developed by the political, bureaucratic and ruling elites in the state that aims at the welfare and inclusion of Adivasis.

Status: New Initiative

77. Building a Social Front of Resistance in Post-Kerala Model Kerala: The Struggle against Quarrying in the Pallichal Panchayat.

J. Devika

Sponsor: RULSG Grant, CDS

In Kerala, decentralized governance and local-level ‘people’s’ planning in the mid-1990s were viewed by the dominant left parties as a modified continuation of their social redistribution agenda. As such, it rested on a notion of social unity which claimed that communal polarization was more or less impossible in the state and that traditional caste hierarchies had been dismantled to a significant extent. However, both these claims came to sound weaker in the course of

the twenty-first century which saw stiff challenges to both in the form of adivasi-dalit land struggles and the rise of militant Hindutva cultural and social assertions, which have been increasingly hostile towards the minority communities. However, with the rise of predatory resource extraction with the intensification of capitalism post-liberalization in twenty-first-century Kerala, the imagination of a resistant social against the predator has become a practical imperative in many localities here. In this paper, I examine the shaping of such a social imaginary at a site of an ongoing intense struggle against predatory, illegal quarrying, the Pallichal panchayat in the district of Thiruvananthapuram. Faced with quarry-capital perverting local governance and eroding invited spaces of local democracy, local citizens mobilized against it, attempting to build a ‘social front’ of resistance. This was limited from the very beginning by the very history of social inequalities there – precisely those that were papered over by the twentieth-century elite commonsense of Kerala as the land of social harmony. Nevertheless, a certain social front did indeed emerge and it included adherents of the purportedly-secular social elite with allegiance to the leading communist parties as well as members of the social elite who openly support Hindutva militancy.

Status: Initiated in 2021-22

78. Egalitarian Paradox: Dalits and State in Kerala (book project)

Jayaseelan Raj

Sponsors: New India Foundation

The Egalitarian Paradox traces the relationship between the postcolonial Kerala state and Dalits in terms of their distinct egalitarian aspirations. When compared with other Indian states, Kerala is known for its almost universal literacy and low mortality and fertility rates. The significance of Kerala’s development is, as noted by many scholars including Amartya Sen, that Kerala had achieved human development goals that were comparable to economically advanced countries despite being economically poor. The social actions of the Kerala state and public are often credited as major new instruments that anchored the Kerala Model. This model was highlighted as an alternative to the neo-liberal development ethos which emphasized economic growth via a free-market policy that argued for the reduced involvement of the state. The contemporary history of Dalits is missing from the discourse on



Kerala exceptionalism precisely because the invisibility of the Dalits itself is part of the reproduction of the Kerala state and society. This invisibility is what challenged by the egalitarian aspirations of Dalits.

Status: New Initiative

Research Plan

79. Book writing in Malayalam:

കേരളത്തിലെ ആദിവാസി പിന്നോക്കാവസ്ഥയെ കുറിച്ച് ഒരു നോവൽ

(An enquiry into the Backwardness of Adivasis in Kerala)

Abhilash T

There is a dearth of literature on adivasis marginality in Kerala especially since the last two decades. Issues related to their excursion and quest for land rights are largely ignored in the vernacular literature. Beginning with the aftermath of the *Muthanga* struggle in 2002 this book will discuss the factors that influenced and contributed to the state's perception towards adivasis land question in Kerala. This book will further focus upon the crystallization of the land- rights movement under different homegrown adivasi movements, including Adivasi Gothra Mahasabha (AGMS) and how it puts forth a fundamental critique, not only of the known equations of the national modernization in the post-colonial context, but also challenges the wisdom of modernity in South Asia. This book later focuses on the issues regarding the implementation of Forest right Act, 2006 in the state. With the help of field surveys this chapter will evaluate how far these landmark Act become instrumental in entrusting traditional rights to the adivasis in the state. This book will also look into the intra-community variations in accessing resources. Final part of the book will look into the fallout of the proposed knowledge economy for the adivasi communities.

Status: Research Plan

OTHER STUDIES

Completed Studies

80. Identity Assertions and Print in Malayalam and Tamil-Speaking Regions in the Early Twentieth Century: Some Comments

J. Devika

In this essay, the author draws upon the work of Ranjith T and Uma G on the early anti-caste publishing in the print public spheres in Malayalam and Tamil of the early twentieth century to reflect upon their similarities and differences and the political implications of these. In both the Malayalam-speaking and Tamil-speaking areas, Brahmanism, which deeply informed socio-political power in utterly distinct ways, faced stiff challenges from the people who it oppressed and excluded. The hollowing out of local potentates through the spread of British colonialism, the integration of the regions into the capitalist World System, the presence of liberal ideas filtered through the lens of British colonialism, improvements in communications and the emergence of publics, the material and political weakening of local elites, the ignition of new social forces through missionary education – these and many other factors facilitated a strong critique of social organisation based on the principles of Brahmanism in both places. The nascent public spheres in Malayalam and Tamil in the late nineteenth century, which grew in reach and depth steadily in the course of the twentieth century, was an important arena of this contestation. However, in the Tamil case, unlike in the Malayalam, a complete rejection of Brahmanism was evident, which had distinctly different social effects.

Status: Appeared in the *South Asia Chronicle* 11/2021

81. Modern Services and Industrialization in Developing Countries: Some Implications of Technology Gap Dynamics

Gogol Mitra Thakur

Can expansion of modern-services such as telecommunications, banking, finance and business services boost industrialization in developing countries? We explore this question in a two-sector Kaleckian model where an autonomously growing service sector generates market for a demand-constrained domestic industry but the latter faces competition from technologically-superior imports.

We show that it is possible to have a steady state in this model, where domestic industry grows at the same rate as the service sector with positive industrial employment growth. Convergence to this steady state, however, requires domestic industry to increase its rate of technical change in response to increasing import competition. We find that improvements in the conditions for technological progress in the domestic industrial sector, say because of policy interventions that helps in upgrading technology, can increase relative size of domestic industry. On the other hand, an increase in the pace of technological progress abroad or an increase in the elasticity of imports of industrial product with respect to technology gap between the domestic industry and its foreign competitor reduces the same.

Status: Submitted to journal

82. Service-led Industrialization in Developing Economies: Some Implications of Technology Gap Dynamics

Gogol Mitra Thakur

Can expansion of modern-services such as telecommunications, banking, finance and business services boost industrialization in developing countries? We explore this question in a two-sector Kaleckian model where an autonomously growing service sector generates market for a demand-constrained domestic industry but the latter faces competition from technologically-superior imports. We show that it is possible to have a steady state in this model, where domestic industry grows at the same rate as the service sector with positive industrial employment growth. Convergence to this steady state, however, requires domestic industry to increase its rate of technical change in response to increasing import competition. We find that improvements in the conditions for technological progress in the domestic industrial sector, say because of policy interventions that helps in upgrading technology, can increase relative size of domestic industry. On the other hand, an increase in the pace of technological progress abroad or an increase in the elasticity of imports of industrial product with respect to technology gap between the domestic industry and its foreign competitor reduces the same. One prediction of this model is that there need not be any convergence in labor productivity growth of the domestic industrial sector and its foreign competitor, which is at odds with recent empirical findings regarding unconditional

convergence of manufacturing productivity growth. However, we also present an alternative model that shows our major conclusions hold even presence of labor productivity growth convergence between domestic and foreign industrial sectors.

Status: Working Paper. This is an extended version of paper mentioned above (B.1)

83. Modern Services led Growth and Development in a Structuralist Dual Economy: Long Run Implications of Skilled Labour Constraint

Gogol Mitra Thakur

Motivated by the South Asian experience, this paper highlights the importance of the rate of expansion of skilled labor force for service-led growth and development in economies characterized by large populations and low average education and skill endowments using a dual economy model. The model economy consists of a skilled-labor intensive service sector and a skilled-labor indifferent industrial sector - both Kaleckian, in the sense that they maintain excess capacity and operate under conditions of imperfect competition. Labor market is fragmented. There is unlimited supply of unskilled labour but skilled labor is scarce and grows at a finite rate. Growth of skilled labor supply is only fractionally explained by growth in real wage of skilled labor while the rest depends on education policy of the government. Since government policies take time to adjust to the needs of the private sector, we argue that effect of education policy on skilled labor supply growth can be treated as autonomous. The main result of this paper shows that the model economy can converge to a steady state characterized by balanced sectoral growth at a rate equal to the autonomous part of skilled labor growth. Increase in returns to skilled labor can drive up the output share of modern services as the two are positively related in the steady state. The model also shows that the supply side can determine growth in structuralist models despite persistence of unemployed resources.

Status: Under review.



84. Effect of Economic Policy Uncertainty on Stock Market Return and Volatility under Heterogeneous Market Characteristics

Srikanta Kundu and Amartya Paul (Doctoral Scholar, CDS)

This study examines the effect of economic policy uncertainty on stock market return and risk for the group of seven countries. We contribute to the existing literature by addressing the question on how stock market return and volatility respond to economic policy uncertainty in differential market conditions viz., bull and bear market. Taking monthly data of G7 countries from 1998 to 2018, we analyse the relationship by using various VAR models for each country, as well as for all the countries in a panel data framework. Markov switching VAR model has been used to estimate the nature of the relationship in bull and bear markets. Additionally, while linear and regime switching VAR models are used in case of panel data, we consider fixed effects to capture country specific heterogeneity. Our estimation results suggest that an increase in EPU increases the market volatility and reduce return only when the time period is contemporaneous. However, it increases the return for future time period as the investor demands higher return as a uncertainty premium which leads to a decrease in volatility. The estimation of MSVAR model suggests that the impact of EPU is significant in bear market and it has insignificant impact in the bull market. Further, we extend our analysis to a three regime MSVAR model for separate as well as for panel of countries. The estimation of the three regime model strengthens our claim that we argued on the basis of the two regime MSVAR model.

Status: Published in *International Review of Economics and Finance* (url: <https://www.sciencedirect.com/science/article/pii/S1059056022000685>)

85. Asymmetries in the Monetary Policy Reaction Function: Evidence from India

Srikanta Kundu and Irfan Ahmad Shah (Doctoral Scholar, CDS)

This paper analyzes the reaction function of monetary authority in India from 1997Q1 to 2019Q4 using nonlinear Taylor rule. It has been found that monetary policy reaction function (MPRF) in India is asymmetric and is influenced by the state of the economy, determined by the lagged interest rate.

To capture such asymmetry, we have used a set of nonlinear models including smooth transition regression (STR) model, threshold regression (TR) model and Markov-Switching regression (MSR) model along with the instrumental variable estimation technique. The analysis discloses that the behaviour of the Reserve Bank of India (RBI) is asymmetric, reacts aggressively to output gap in general and particularly during periods of high interest rate. Furthermore, the RBI reacts more to inflation and output gap during low volatile regimes in MSR models compared to high volatile regimes. We also found that there is a high degree of inertia in the policy rates of the RBI. The study concludes that nonlinear models may not only help in understanding the behaviour of the RBI but also prevent from making incorrect and misleading conclusions in Indian context.

Status: Published in *Studies in Nonlinear Dynamics and Econometrics*

(URL: <https://www.degruyter.com/document/doi/10.1515/snde-2019-0121/html?lang=en>)

86. An Empirical Analysis of COVID-19 Response: Comparison of US with the G7

Srikanta Kundu, Mahua Barari and Saibal Mitra (Missouri State University)

We compare US policy response to COVID-19 with its G7 counterparts between March and September 2020. The G7 countries, while economically and ideologically aligned, have instituted vastly different policies to mitigate the spread of the disease with varying degrees of compliance. To quantify the effect of policy responses on the spread of infections, we estimate beta for each country which is the slope coefficient of daily new cases in each country regressed against world new cases. First, we test for structural breaks in daily data for world new cases using the BaiPerron (1998, 2003a, 2003b) method which endogenously determines break points. We obtain five break dates that allow us to divide the time period into six windows and estimate betas separately for each window. Next, we rank the G7 countries based on their beta values for each window. Our empirical findings suggest that countries that eased their lockdown measures moderately while enforcing nationwide mask mandate and comprehensive contact tracing generally performed better in mitigating the spread of new infections. Furthermore, countries with higher degree of compliance saw improvement

in their rankings. US was ranked mostly in the bottom half of the G7 group but not always the worst.

Status: Published in *International Review of Applied Economics*

87. COVID-19 and Federalism in India: Capturing the Effects of State and Central Responses on Mobility

Srikanta Kundu, Himangshu Kumar and Manikantha Nataraj (Doctoral Scholars, CDS)

In response to the rapidly spreading COVID-19 pandemic, governments resorted to containment and closure measures to reduce population mobility and ensure social distancing. Initially, India's state governments enacted varying social-distancing policies until the Central government overrode states to impose a nationwide lock-down on 24th March. This paper examines the relative impact of state- and central- level social-distancing policies on changes in mobility, comparing the periods before and after the national lockdown. A district-level panel dataset is formed, compiling data on social-distancing policies and changes in population mobility patterns. Panel regressions reveal that the incremental effect of each social-distancing policy varied across states in the pre-24th March period. The national lockdown led to much larger, though varying, reductions in mobility across all states. Overall, states which were able to achieve higher compliance in terms of reducing mobility in the pre-lockdown phase performed better in the national lockdown.

Status: Published in the *European Journal of Development Research*

(url:<https://link.springer.com/article/10.1057/s41287-021-00463-4>)

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

Srikanta Kundu, Ruma Kundu (Sikkim University) and Kul Bahadur Chettri (Nar Bahadur Bhandari Government College, Tadong)

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.

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

Srikanta Kundu, Ruma Kundu (Sikkim University) and Indraneel Mandal (Sikkim University)

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.



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

Srikanta Kundu, Manikantha Nataraj (Doctoral Scholar, CDS) and Pratim Das (MA Student)

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: Under review in a journal

91. Risk>Returns Interdependence between REIT and Stocks: A STVAR-BTGARCH-M Model

Srikanta Kundu, Mahamitra Das (Xavier University Bhubaneswar, Odisha), Nityananda Sarkar (ISI)

This study examines the diversification benefit of REIT in the mixed-asset portfolio by analyzing the risk-return relationship between REIT and the stock market in two different market conditions - bull and bear in the USA and the UK. Regime-specific risk-returns relationship is captured by a smooth transition bivariate asymmetric GARCH-M model with a dynamic conditional correlation specification. Taking monthly data from January 1990 to December 2019, we find that the direction and magnitude of stock and REIT's effect vary across the market conditions in both countries. The results also suggest that the

cross risk-return relationships are asymmetric across bull and bear markets. Further, the own risk-return relationship of REIT is found to be positive in the bull state in the USA and the bear state in case of the UK, while this relationship for the stock is significant only in the UK. Thus, portfolio diversification should be subject to different market conditions prevailing in different countries.

Status: To be submitted to journal

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

Srikanta Kundu and Amartya Paul (Doctoral Scholar, CDS)

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

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

Srikanta Kundu and Irfan Ahmed Shah (Doctoral Scholar, CDS)

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: To be submitted to Journal

94. External Shocks and Indian Economy

Srikanta Kundu and Irfan Ahmed Shah (Doctoral Scholar, CDS)

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

95. Marginal Livelihoods and Forest Dependence: A Study in Chamba District, Himachal Pradesh, India

Thiagu Ranganathan and S Krithi (TISS)

In much of the developing world, forest-based livelihoods remain highly labour intensive and dependent on depleting natural resources. This paper analyses the use of a non-market product – leaves – from the forest and identifies critical factors influencing dependence. It explores the determinants of household choice of resource use where there is an alternate feasible modern input like fertilizer. Based on a multivariate regression model on the collection of leaves covering 300 households in district Chamba, this paper studies subsistence forest resource use across the region. The study finds that the labour related to collection of leaves by a household is highly gendered in nature where the number of women in the household acts as a key determinant in collection of leaves and amount of time spent on the same. We also find that there are complementarities in the use of fertilizers by the household and collection of leaves. The paper concludes with implications of these findings for current forest policy in the Indian context.

Status: Under Review in a Journal

Research theme: Forest dependent livelihoods

96. ICT Adoption & Agricultural Diversification: Evidence from Farm Households in India

Tirtha Chatterjee

Using nationally representative dataset, this paper explores the impact of Information & Communication Technology (ICT) adoption (use or own) on agricultural diversification towards High Value Commodities (HVC) and other production related decisions of farm households in India. In particular, the study explores whether ICT adoption (mobile phone and/or computers) has led to an increase in cultivation of High Value Commodities (HVCs) in India. Further, I also estimate the impact of ICT adoption on commercialization of farm output and input use. It is conceivable that access to ICT can reduce informational barriers by increasing connectivity among people. Timely and correct information is critical for farm production decisions. Information requirements might range from forecasts related to rainfall and other weather conditions to availability and prices of agricultural inputs, latest agricultural practices, pest management, markets and prices (Aker, 2011). Use of mobile phones and/or computers could in general make households more



connected with each other, communicate more, share information with each other and be more aware about recent developments and therefore induce behavioural changes among them. It could be seen as an input in the agricultural production process which could reduce friction in information dissemination and reduce transaction cost, specially in areas which are more remote and less connected. I find that ICT adoption has a positive and significant impact on agricultural diversification towards High Value Commodities. Households who have adopted ICT are more likely to spend on agricultural inputs and technologies, hire labour for farm work, sell their output in the market, make higher profits and earn higher income. Further, I find that benefits of ICT adoption are driven by villages which do not have an all-weather road (pucca road). My results also show that benefits of ICT are driven by those villages which were relatively early adopters of mobile technology. I also explore the channels through which ICT adoption could possibly encourage production of HVCs and find that higher awareness, more access to mass media, news, acquaintance with influential people in the villages and access to credit market could be possibly the channels through which ICT adoption drives agricultural production decisions.

Status: communicated to journal

97. Adoption of Information & Communication Technology & Dietary Diversity in India

Tirtha Chatterjee

Using nationally representative panel data, we estimate the impact of Information & Communication Technology (ICT) use on dietary diversity in India. We find a positive and statistically significant impact of ICT adoption on household's dietary diversity. Households adopting ICT spend a lower share on cereals and higher share on dairy, fruits and vegetables and meat and eggs. Our results show that ICT has a statistically significant impact on dietary diversity only in rural areas but impact on dietary quality can be seen in both rural and urban areas. Further, we explore channels through which ICT adoption could impact dietary diversity and find that ICT adoption has a statistically significant and positive impact on access to mass media and household's social network, and market access. Our results give evidence of the potential of ICT in improving dietary quality and thereby reducing nutrient deficiencies.

Status: communicated to journal

Ongoing Studies

98. Natural Disasters and Economic Dynamics – Evidence from the Kerala Floods

Gogol Mitra Thakur, Robert CM Beyer (Senior Economist, World Bank) and Abhinav Narayanan (Asian Infrastructure Investment Bank)

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 analysed with annual data.

Status: Expected date of completion: 15th May 2022

99. 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, 1974; 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 (1986) 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 (1986), a large body of literature has emerged that has explored the determinants of crime (Fajnzylber et al., 1998; Cahill and Mulligan, 2003; Imrohoroglu et al., 2006; Bunanno 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, 1968; 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, 1998). 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)¹⁰. 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 until the late nineties. In 2000, the central government of India introduced the PradhanMantri Gram Sadak Yojna (PMGSY) that aimed to connect all villages with an all-weather pucca road in a phased manner. Rule-based population cutoffs determined the sequence of phases. However, in 2011, the PMGSY rollout was extended to all the villages in India.

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 information from the village questionnaire on whether the village was accessible

10. 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.



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: Expected date of completion: March 2022

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

Srikanta Kundu and Sandeep Pandey (Doctoral Scholar)

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: Expected date of completion: December 2022

Completed Research Projects

101. Beyond Aesthetic Education: The Malayali Engagement with Humanities

J. Devika

Sponsor: CIPSH and UNESCO

This essay offers some preliminary reflections on the shifts and transformations within the intellectual spheres of the humanities which have shaped Kerala's cultural ethos in recent decades. I take the broader view of humanities which has been accepted in Kerala's academia too recently. Broadly speaking, humanities knowledge and practice in the academia and Malayali literary-cultural public expanded in three important ways towards the close of the twentieth century and after. The first of these expansions was to do with the emergence, or strengthening, of a range of thinking that challenged the supremacy of liberal humanism and Stalinist Marxism stemming from new sources of political criticism from oppositional civil social spaces – European Marxism, environmentalism, feminism, the post-Babri Masjid Muslim critique of mainstream Indian liberal nationalism and the leftist national-popular in Kerala, and the burst of feminist and Dalit literary and historical production. The second transformation has to do with the coming of the new humanities disciplines – cultural studies and film studies in particular. This was also the period in which the dominant social science discourse here came to accommodate humanizing methodological and disciplinary pluralism. The third significant development is the renewed presence of the publishing industry in the field. Collectively, these changes have reshaped the understanding of freedom and social justice in Malayali society; they also seem to have undermined the homoaesthetic circle as the major mode of organizing communicative practice. The subsequent sections of the essay will deal with each in turn. This essay relies a great deal on secondary literature as well as five interviews conducted with important voices in the contemporary Malayalam intellectual scene.

Status: Accepted as Chapter in the India/South Asia section of the World Humanities Report, anchored by Prof Bishnu N Mohapatra, KREA University.



Ongoing Research Projects

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

Thiagu Ranganathan and S Krithi (TISS, Hyderabad)

Sponsors: ICIMOD

This research will investigate the implications of Payment for Ecosystem Services (PES) in forest restoration and its comparison to other forest restoration measures. The study will analyze three dimensions of outcomes related to forest restoration – ecological outcomes, the distributional aspects, and motivational crowding. Typical studies of PES have focused largely on ecological outcomes or in some of the studies on the socio-economic impact. This study proposes to examine the effectiveness of restoration alternatives in the Uttara Kannada district in the Western Ghats of India. This study will develop theoretical insights into using payment based allocation mechanisms in forest restoration efforts.

Status: Expected date of completion: March 2023

New Initiatives

103. Identity Assertions and Print in Malayalam and Tamil-Speaking Regions in the Early Twentieth Century: Some Comments

J. Devika

In this essay, I draw upon the work of Ranjith T and Uma G on the early anti-caste publishing in the print public spheres in Malayalam and Tamil of the early twentieth century to reflect upon their similarities and differences and the political implications of these. In both the Malayalam-speaking and Tamil-speaking areas, Brahmanism, which deeply informed socio-political power in utterly distinct ways, faced stiff challenges from the people who it oppressed and excluded. The hollowing out of local potentates through the spread of British colonialism, the integration of the regions into the capitalist World System, the presence of liberal ideas filtered through the lens of British colonialism, improvements in communications and the emergence of publics, the material and political weakening of local elites, the ignition of new social forces through missionary education – these and many other factors facilitated

a strong critique of social organisation based on the principles of Brahmanism in both places. The nascent public spheres in Malayalam and Tamil in the late nineteenth century, which grew in reach and depth steadily in the course of the twentieth century, was an important arena of this contestation. However, in the Tamil case, unlike in the Malayalam, a complete rejection of Brahmanism was evident, which had distinctly different social effects.

Status: Appeared in the *South Asia Chronicle* 11/2021

104. Implications of Rural Wage Dynamics for Growth and Technical Change in Rural Manufacturing: Evidence from Indian States

Gogol Mitra Thakur and Mahamitra Das

Share of rural areas in total manufacturing output of India has steadily increased from 25.8% in 1970-71 to 51.3% in 2011-12 as well as manufacturing sector's share in rural output has also increased steadily from 5.9% in 1970-71 to 18.4% in 2011-12 while its share in rural employment has gone up from 5.3 in 1972-73 to 8.6% in 2011-12 (Chand et. Al. 2017). Mitra and Das (2020) argue that nature of technical change in rural manufacturing in India has undergone significant change between 1998-99 and 2016-17. Rural manufacturing sector experienced steady increase in both labour and capital productivities 1998-99 and 2007-08 while capital intensity remained constant, indicating Hicks-neutral technical change. After 2007-08, however labour productivity increased by only by 1.29 % whereas capital productivity actually declined by 38% implying a substantial increase in capital intensity. This indicates, what is often referred to as, Marx-biased technical change. The post-reforms period has also witnessed significant changes in trends and structure of agricultural and, more generally, rural wages in India. Himanshu (2017) shows that agricultural and non-agricultural rural casual real wage remained stagnant between 1998 and 2008, followed by followed by sharp rise and acceleration between till 2013 and then a decline until 2016. This paper examines relationship between expansion of and technical change in the rural manufacturing sector and the dynamics of rural, and in particular agricultural, wage rates in India. In particular, we are interested in examining whether this relationship changed around 2008.

Status: New Initiatives

105. Interstate Trade of Kerala and Its Manufacturing Sector Prospectus

M. Parameswaran, Sunil Mani and K N Harilal

Sponsor: Kerala and World Economy

In an economy like Kerala, which is fully opened to the rest of the regions in the country, production structure evolves in accordance with the comparative advantage of the region vis-à-vis the rest of the region. Accordingly, Kerala exports those products in which it has an advantage over other areas and import those in which it has comparative disadvantage. The objective of this research is to identify those products and industries having potential to expand and achieve national and international competitiveness.

First step of the study is to identify the products that Kerala has been importing from and exporting to the rest of India. In the second step a short list of commodities is prepared from among the set of products that Kerala has been importing from other states on the basis of their potential for production within the state. The potential of a product to be produced within the state is identified on the basis of relative unit-cost of production cost and complementary facilities required for its production. Where relative unit-cost of production is the per unit cost of production of a product in Kerala compared to that in other states from which the product is imported. Similarly, we can also identify the product in which the state has higher potential for export success and hence their production need to be expanded.

Identification of commodities that Kerala has been importing and exporting will be done using the GST away bill data and unit cost of production of product can be estimated using the ASI plant level data. Complementary facilities required for the production of a commodity and its availability will be assessed through discussions and interviews with experts in the field.

Status: New Initiative

106. Inflation, Output Growth, Inflation Uncertainty and Output Growth Uncertainty: A Two-Step Approach with Structural Breaks

Srikanta Kundu, Kushal Banik Chowdhury (ISI, Assam) 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 2022

107. 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 2022

108. Public Debt Sustainability and Fiscal Reaction Function

Srikanta Kundu and Sahana Roy Chowdhury (IMI, Kolkata)

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 2022

109. Spatial Market Integration through the Lens of Cluster Formation- Evidence from Indian Agriculture

Tirtha Chatterjee and A. Ganesh Kumar (IGIDR)

Existing studies have explored the extent of agricultural market integration exhaustively using time series methods. In this paper we re-examine the question using a novel cluster identification method- Philips and Sul (2007). Time series methods are sensitive to the choice of lead/central markets and become computationally cumbersome if one intends to cover a large number of markets/regions. PS method is an endogenous cluster identification method, is not sensitive to the choice of lead/central market and allows us to explore the extent of market integration across a large number of markets/regions and therefore is a more comprehensive method of studying market integration. It can identify whether all markets converged to one cluster (integrated) or converged to different clusters or remain standalone over time. Another benefit of using this method is that we can identify which markets are members of which cluster and therefore have direct policy implication from the results. In this study, we explore agricultural market integration across several commodities in India (paddy, wheat, Bengal gram, groundnut, onion, potato and tomato) and find that number of constituents of clusters formed depends on type of crop, shelf life, extent of government intervention. However, identified clubs also show that state membership does not drive cluster-co- membership and different states

in India show different extent of market integration for different commodities.

Status: New initiative

Research Plan

110. Demand-led growth, Education and Wage Inequality

Gogol Mitra Thakur and Pintu Parui (JNU)

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 production 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 to highlight 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.

Status: Research Plan

111. Inflation, Output Growth, Inflation Uncertainty and Output Growth Uncertainty: A Two-Step Approach with Structural Breaks

Gogol Mitra Thakur, Kushal Banik Chowdhury (ISI) 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.

Status: Research Plan

112. 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.

Status: Research Plan

113. Economic Policy Uncertainty, Investor's sentiment and Stock Return

Srikanta Kundu, Devika Dilipkumar and Rhythm Sparsh Narayan (JNU)

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: Research Plan

3



OUTPUTS OF RESEARCH

(I) 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 505 working papers and 45 books brought out under the CDS programme. This year three working papers were published. A total of six 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. The Centre also publishes a Newsletter, *CDS Chronicle*, to reach out its activities to a wider audience.

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 P,L Murali Kallummal and Santosh Kumar (ed) *Indian Economy during the Neoliberal Era: Finance, Industry and Employment*, Routledge, India, UK, (Forthcoming 2022).

Sunil Mani

Mani, Sunil and Chidambaran G Iyer (eds., 2021), *India's Economy and Society, Lateral Exploration*, Singapore: Springer

Thiagu Ranganathan

Mitra, A., Das, S., Tripathi, A., Sarangi, T.K. and **Ranganathan, T.**, (2021). *Climate Change, Livelihood Diversification and Well-Being: The Case of Rural Odisha*. Springer, November.

Books by Honorary Fellows/ Visiting Fellows

R. Nagaraj

Nagaraj, R (2021), *Industrialisation for Employment and Growth in India: Lessons From Small Firm Clusters and Beyond*, Cambridge: Cambridge University Press, 287 pages, HB. ISBN: 9781108832335

M.A.Oommen

Oommen, MA. (2021) *Essays on Fiscal Decentralisation to Local Governments in India*, Concept Publication, (on behalf of Kerala Institute of Local Administration (KILA) and Gulati Institute of Finance and Taxation).New Delhi (2022) to commemorate 25 years of decentralisation in Kerala.

Suraj Jacob

Jacob, Babu and Suraj Jacob (2021) *Governing Locally: Institutions, Policies and Implementation in Indian Cities*, Cambridge: Cambridge University Press, 293 pages, HB. ISBN: 9781108832342.

(b) JOURNAL ARTICLES**Abhilash Thadathil**

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Chidambaran G. Iyer

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Harilal K N

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Rajit Biswas

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Ritika Jain

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Srikanta Kundu

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Abhilash T. Published a detailed study report in a leading Malayalam Web-magazine on 29 July 2021. <https://truecopythink.media/social-justice-and-tribal-community-study-report-on-webzine>

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ചുരുങ്ങിക്കൊണ്ടിരിക്കുന്ന
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പ്രശ്നങ്ങളെക്കുറിച്ചുള്ള
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Mani, Sunil and Chidambaran G Iyer. 2022. 'Diffusion of digital payments in India 2011-12 through 2020-21, Role of its sectoral system of innovation,' *CDS Working Paper Series, No: 505*, <https://cds.edu/wp-content/uploads/WP505-ManiandIyer.pdf>

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(g) 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	58	344	2297	10	24	63
Prof. K N Harilal	9	159	904	3	13	17
Prof. Praveena Kodoth	14	79	-	4	-	-
Prof. J Devika	47	302	1320	9	21	36
Prof. Vinoj Abraham	18	178	1157	5	16	21
Dr. Beena P L	5	10	462	2	10	10
Dr. Parameswaran M	14	98	402	4	8	8
Dr. Hrishikesh Mallick	35	619	1312	13	20	28
Dr. Thiagu Ranganathan	16	39	175	4	9	7
Dr. Chidambaran Gurunathan Iyer	8	25	115	3	6	3
Dr. Srikanta Kundu	9	33	93	3	4	4
Dr. Ritika Jain	19	48	149	4	7	5
Dr. Rajit Biswas	7	12	25	2	4	0
Dr. Jayaseelan Raj	6	15	127	2	5	2
Dr. Chandril Bhattacharyya	5	13	40	3	4	2
Dr. Tirtha Chatterjee		-	88	-	6	4
Dr. Gogol Mithra Thakur		-	-	-	-	-
Prof. K J Joseph & Prof. Udaya Sankar Mishra are on leave, hence details not included						

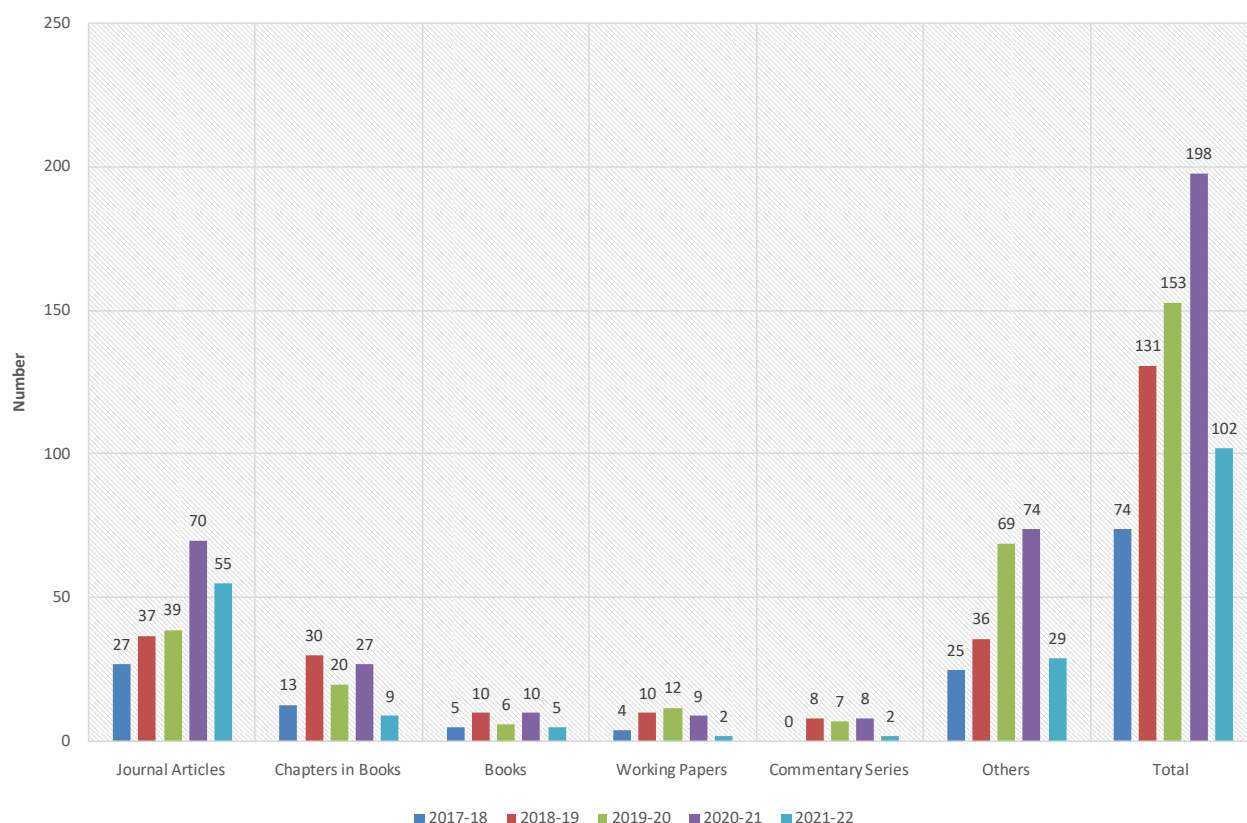
GOOGLE SCHOLAR CITATION**Abhiash, T****Google Scholar Citation : 7**<https://scholar.google.com/citations?user=zqMsROUAAAAJ>**Chandril Bhattacharya**<https://scholar.google.com/citations?hl=en&user=u7GdIP4AAAAJ>**Chidambaran G. Iyer**<https://scholar.google.com/citations?user=47HAmA8AAAAJ>**J. Devika**<https://scholar.google.com/citations?user=8b1xY5oAAAAJ&hl=en>**Gogol Mitra Thakur****Google Scholar Citation : 5**<HTTPS://SCHOLAR.GOOGLE.COM/CITATIONS?USER=SF8R54YAAAAJ&HL=EN&OI=SRA>**Hrushikesh Mallick**<https://scholar.google.com/citations?user=tQnpUcwAAAAJ&hl=en>**Jayaseelan Raj**https://scholar.google.com/citations?user=oi_CiHYAAAAJ&hl=en**M. Parameswaran**

M Parameswaran - Google Scholar

H index : 8

Ritika Jain<https://scholar.google.co.in/citations?user=-DGcDLcAAAAJ&hl=en>**Sunil Mani**<https://scholar.google.com/citations?user=r8iWpMcAAAAJ&hl=en>**Srikanta Kundu****GOOGLE SCHOLAR CITATION: 93**<HTTPS://SCHOLAR.GOOGLE.CO.IN/CITATIONS?USER=CfEeI4sAAAAJ&HL=EN>**Thiagu Ranganathan**https://scholar.google.com/citations?hl=en&user=v4b9M30AAAAJ&view_op=list_works&sortby=pubdate**Tirtha Chatterjee**https://scholar.google.com/citations?hl=en&user=Ubvzg-oAAAAJ&view_op=list_works&sortby=pubdate**Vinoj Abraham**<https://scholar.google.com/citations?user=vQpypHIAAAAAJ&hl=en&oi=ao>

Trends in Publications by CDS researchers, 2017-18 through 2021-22



Notes: 1. Of the total 55 journal articles published during 2021-22, 44 are in SCOPUS-indexed journals

Sl No.	List of SCOPUS -Indexed Journal Articles published by CDS researchers during 2021-22*
1	Abhilash, T. 2022. ‘Another Wave of Forest and Adivasi Land Alienation? Revenue versus Forest Pattayam and Adivasi Land Question in Kerala,’ in ArthaVijnana, Vol. No.LXIV (64), Issue No.1 Page: 75-87 (March, 2022) (http://www.i-scholar.in/index.php/ArthaVij)
2	Balakrishnan, P. and Parameswaran, M. (2021), ‘Modelling Inflation in India’, Journal of Quantitative Economics 19, 555-581.
3	Barari, M., Kundu, S., & Mitra, S. (2021). ‘An empirical analysis of COVID-19 response: comparison of US with the G7’. International Review of Applied Economics, 35(6), 886-903.
4	Biswas, Rajit. (2021) ‘Technology licensing under Product Differentiation, in Journal of Economics (accepted June 2021). (With Neelanjan Sen and Saumya Kaul)
5	Chandra Shekar, K and Joseph K J (2022): ‘Determinants of Innovation and Interactive Learning in informal manufacturing enterprises in India,’ Science and Public Policy.(with Joseph, KJ)
6	Devika, J. (2020) ‘The Defence of Aacharam, Femininity, and Neo-Savarna Power in Kerala’, Indian Journal of Gender Studies 27, 3, 2020, 445-470.
7	Harilal K.N. (2021), “Globalisation of Agriculture and Atomisation of Farming: Small Farms Crisis in Asia”, 12 (3), 298-315, Millennial Asia.

8	Iyer C.G. 2022. Mobile Phone Manufacturing in India: A Study of Few Characteristics. Economic and Political Weekly, 57(8), 46-53.
9	Jain, R. (2022). State Ownership and Dividend Decisions: Economic Versus Political Determinants. Journal of Quantitative Economics, 1-20.
10	Joshi, K., Ranganathan, T., & Ranjan, R. (2021). 'Exploring Higher Order Risk Preferences of Farmers in a Water-Scarce Region: Evidence from a Field Experiment in West Bengal, India'. Journal of Quantitative Economics, 1-28.
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12	Kumar, Dhananjay, Nitin Bisht, and Indrajeet Kumar. 2021. 'The role of age structure and occupational choices in the Indian labour market.' International Journal of Social Economics.
13	Kumar, H., Nataraj, M., & Kundu, S. (2021). 'COVID-19 and Federalism in India: Capturing the Effects of State and Central Responses on Mobility'. The European Journal of Development Research, 1-30.
14	Kundu, S., & Paul, A. (2022). 'Effect of economic policy uncertainty on stock market return and volatility under heterogeneous market characteristics'. International Review of Economics & Finance, 80, 597-612.
15	Mankunnummal, A. 2021. 'Changes in Planning Methodology Impact on Local Self-government Institutions in Kerala'. Economic & Political Weekly, Volume LVI No 42, 24-28.
16	Mankunnummal, A. 2021. 'Fertiliser Shortage in India'. Economic & Political Weekly, Volume LVI No 48, 5.
17	Mishra, US. (2021) 'Need for Equalising Endowments,' Economic and Political Weekly, December 11, 2021 Vol. LVI No. 50. (With Balakrushna Padhi).
18	Nagaraj, K (2021) 'Revisiting the GDP Estimation Debate: Manufacturing Sector Output', Economic and Political Weekly, Vol. 56, No. 44, October 30, 2021.
19	Nayak, Suravee (2022) 'Migrant Workers in the Coal Mines of India: Precarity, Resilience, and the Pandemic'. Social Change. June 2022. (Forthcoming).
20	Rout, S. K., Gupta, M., & Sahoo, M. (2021). 'The role of technological innovation and diffusion, energy consumption and financial development in affecting ecological footprint in BRICS: an empirical analysis'. Environmental Science and Pollution Research, 1-18.
21	Rout, S. K., (2021) 'Income Inequality in India,' Economic & Political Weekly, Vol. 56, Issue 34, 2021. (with Dillip Kumar Muduli).
22	Rout, S. K., (2021) 'Covid-19 and Inequality.' Economic & Political Weekly, Vol. 56, Issue 16, 2021
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24	Shah, I. A., & Kundu, S. (2021). 'Asymmetries in the monetary policy reaction function: evidence from India'. Studies in Nonlinear Dynamics & Econometrics.
25	Shubham Sehgal. (2021) 'Banking Sector Reforms of 1991 and Agricultural Credit' Economic and Political Weekly, December 11, 2021 Vol. LVI No. 50
26	Mani, Sunil. (2021) The US-Ireland-India in the catch-up cycles in IT services: MNCs, indigenous capabilities and the roles of macroeconomic variables. Eurasian Business Review, 2021, 11(1), pp. 59-82. (with Porto, T.C., Lee, K.).
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29	Abraham, Vinoj. (2021) Occupational Segregation in the Indian Labor Market: A Socio-religious Perspective. Mansoor, K., Abraham, V. <i>Indian Journal of Labour Economics</i> , 2021, 64(1), pp. 73–99
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37	Mallick, H. (2021) Assessing the effectiveness of total foreign aid and foreign energy aid inflows on environmental quality in India. <i>Energy Policy</i> , 2021, 149, 112015. (with Mahalik, M.K., Villanthenkodath, M.A., Gupta, M.)
38	Mallick, H. (2021) Do educational levels influence the environmental quality? The role of renewable and non-renewable energy demand in selected BRICS countries with a new policy perspective. <i>Renewable Energy</i> , 2021, 164, pp. 419–432. (with Mahalik, M.K., Padhan, H.)
39	Jain, R. (2021) Is R&D spending influenced by disinvestment and local political corruption? The case of Indian central public sector enterprises. <i>Economic Systems</i> , 2021, 45(3), 100877.
40	Jain, R. (2021) Information and Communication Technology Adoption and the Demand for Female Labor: The Case of Indian Industry. <i>B.E. Journal of Economic Analysis and Policy</i> , 2021, 21(2), pp. 695–722
41	Kundu, S (2021) Nonlinear relationships between inflation, output growth and uncertainty in India: New evidence from a bivariate threshold model. <i>Bulletin of Economic Research</i> , 2021, 73(3), pp. 469–493. (with Chowdhury, K.B., Sarkar, K.K.)
42	Biswas, R. (2021) Taxes and unemployment. <i>International Journal of Economic Theory</i> , 2021. (with Thandassery Ramakrishnan, V.)
43	Bhattacharyya, C (2021) Unionised labour market, environment and endogenous growth. <i>International Review of Economics and Finance</i> , 2021, 72, pp.29-44. (with Ranjan Gupta, M.)
44	Kannan, K.P. and Mohd Imran Khan (2022), ‘Loss of Job, Work, and Income in the Time of Covid-19: Analysis of PLFS Data’ , <i>Economic and Political Weekly</i> , Vol. LVII, No.2, 8 January.

- *It is actually for the calendar year 2021 and 2022 upto May 31, 2022* . It is not possible to extract SCOPUS-Indexed journal articles strictly according to the fiscal year 2021-22.

(II) 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 11 open seminars/webinars were conducted. In addition to this, 15 webinars were given by the faculty and students. The CDS also organised national seminars/conferences and workshops and discussions in addition to 4 Public lectures.

(A) OPEN SEMINARS/WEBINARS

Webinar on “Cronyism in Local Governments: A Case Study Pallichal Gram Panchayat in Kerala” by Prof. Mohanakumar S, Professor and Director (I/C), Institute of Development Studies, Jaipur, Rajasthan (21 May, 2021)

Webinar on “Adaptive State Capitalism in India’s Coal Industry: Implications for the Indian Model of State Capitalism” by Dr. Rohit Chandra, School of Public Policy, Indian Institute of Technology Delhi. (25 June, 2021)

Webinar on “Trapped in the Middle? Growth and Premature De-industrialisation in Emerging Economies” by Prof. M. Suresh Babu and Ms. Rekha Ravindran, Department of Humanities and Social Sciences, Indian Institute of Technology Madras. (23 July, 2021)

Webinar on “Towards a Critique of Economic Theory” by Prof. Prabhat Patnaik, Economist & Professor (Retd.), Jawaharlal Nehru University (JNU), New Delhi. (26 July, 2021)

Webinar on “Towards a Subaltern Political Economy: Perspectives from the Margins” by Prof. M. Kunhaman, Economist & Retired Professor, TISS, Tuljapur. (6 August, 2021)

Webinar on “Between Unfreedoms: The Role of Caste in Decision to Return among Indentured workers” by Dr. Neha Hui, Lecturer, University of Reading, UK. (27 August, 2021)

Webinar on “Touch and tech: Labour and the work of the pandemic” by Dr. Mythri Prasad, Post Doctoral Fellow at the Graduate Centre, City University of New York. (3 September, 2021)

Webinar on “Caste and Unequal Access to Education: An Experimental Study” by Ms. Deepthi Bhatia, Ph.D Scholar, Graduate School of Decision Sciences, University of Konstanz, (10 September, 2021)

Webinar on “Climate Change and Sustainable Production and Consumption of Natural Rubber in India: Introspect and Prospect” by Dr. Lekshmi Nair, International Rubber Study Group. (30 September, 2021)

Webinar on ‘Unfree’ Plantation Labour in Globalising India: Insights from a Field Survey in Assam by Prof. Deepak Mishra , JNU. (29 October, 2021)

Moving Away from the Joneses to keep up with: Information Gap and Signalling by Mr. Shihaz Abdul Razack, Academic Associate, IIM- Bangalore. (11 February, 2022)

(B) SEMINARS / WEBINARS BY CDS FACULTY/ STUDENTS

Webinar on “Disciplinary vs. Neoliberal Governmentality? Understanding Agency in the Pallichal Panchayat” by Prof. J. Devika, CDS (28 May, 2021)

Webinar on “The role of industrial policy in market-friendly economies-Case of COVID-19 vaccine R&D and its manufacturing in India and the USA’ by Professor Sunil Mani, Director and Professor, RBI Chair, Centre for Development Studies.(2 July, 2021)

Webinar on “Role of the State in Moulding India’s Fertilizer Manufacturing Industry” by Mr. Ajil M, Ph.D Scholar, CDS. (16 July, 2021)

Webinar on “Do education and vocational trainings lead the Indian workforces to choose self-employment over the salaried employment? Evidence from the non-farm sector” by Dr. Hrushikesh Mallick, Associate Professor, CDS and Dr. Pradeep Kumar Choudhury, Assistant Professor, JNU. (6 August, 2021)



Webinar on “The diffusion of broadband internet in India, Its unequal availability and crony capitalism” by Mr. Rajkumar Byahut, Ph.D Scholar, CDS. (30 August, 2021)

Webinar on “Natural Disaster and the Economy: Evidence from the Kerala Floods of 2018” by Dr. Gogol Mitra Thakur, Assistant Professor, CDS (17 September, 2021)

Webinar on Examining the emergence and regional concentration of startups in India by Ms. Krishnapriya, Ph.D Scholar CDS. (1 October, 2021)

Webinar on ‘What lowered the inflation in India: inflation targeting or food-price movement?’ by Dr. M. Parameswaran, Associate Professor, Centre for Development Studies. (12 November, 2021)

Webinar on “Determinants of Process Innovation in Indian Industry: An Empirical Exploration” by Dr. Chidambaran Gurunathan Iyer, Associate Professor, CDS, (19 November, 2021)

Webinar on “Forecasting India’s Natural Rubber Price: Comparison of different univariate time series modeling” by Dr. Srikanta Kundu, CDS. (21 December, 2021)

Webinar on “Diffusion of Digital Payments in India, 2011-12 through 2020-21, Role of its Sectoral System of Innovation” by Professor Sunil Mani and Dr. Chidambaran G. Iyer, CDS. (2 February, 2022)

Webinar on “Relative Occupational Aspirations and Youth Unemployment in India” by Mr. Basit Abdullah, Ph.D Scholar, CDS. (4 February, 2022)

Webinar on “Factors affecting farmer’s perceptions towards producer companies: Evidence from case studies in Uttar Pradesh” by Ms. Aishwarya Prakash, Ph.D Scholar. (17 March, 2022)

Webinar on “Collusion under Product Differentiation” by Dr. Rajit Biswas, CDS. (24 March, 2022)

Webinar on “India’s Space Economy, 2011-12 to 2020-21, Its Size and Structure” by Professor Sunil Mani, Professor Vinay Kumar and Dr C. S. Shaijumon (25 March, 2022)

(C) INTERNATIONAL / NATIONAL CONFERENCES / SEMINARS / WEBINARS / WORKSHOPS / DISCUSSIONS/ LECTURES / EVENTS

Third Dr. B. R. Ambedkar Memorial Event on Dr. B. R. Ambedkar’s Perspective of Economic Development for India and its Relevance by Prof. G Nancharaiiah, Emeritus Professor at the Development Economics, University of Hyderabad. (16 April, 2021)

Panel Discussion on ‘India’s rural and agrarian economy today.’ by panelist Richa Kumar (IIT-Delhi), Nikhit Kumar Agrawal (University of California, Los Angeles) and A R Vasavi (Punarchith Collective) Moderated by P S Vijayshankar (Samaj Pragati Sahayog, Bagli, MP) (4 June , 2021)

ICSSR Sponsored Capacity Building Programme for Social Science Faculty, coordinated by Dr Thiagu Ranganathan and Dr. P.L Beena (26 July to 6 August, 2021)

Research Methodology Workshop on Migration, coordinated by Prof Praveena Kodoth (9th to 13th Aug, 2021)

Panel Discussion on National Monetisation Pipeline: Is it the best way to finance infrastructure development in India?” coordinated by Prof Sunil Mani, Director and Professor, RBI Chair, CDS (24 September, 2021)

A Panel discussion on “Licensing and Regulatory Regime for Digital Banks in India” was held by a panel consisting of Professor Partha Ray, Mr. Narayan Ramachandran, Mr. S. Ganesh Kumar and Prof. Suresh M. Babu and coordinated by Prof Sunil Mani, Director and Professor RBI Chair, CDS (14 December, 2021)

AKAM Lecture Series-2022: The Story of Professor P. J. Thomas -An Unsung Economist By: Dr. E. M. Thomas, Visiting Professor, Mahatma Gandhi University, Kottayam. (14 January, 2022)

Book Discussion on ‘Industrialization for Employment and Growth in India,’ was held by CDS-ISID-CUP (28 January, 2022)

Teaching Innovations Programme in Economics (TIPE) 2022. Coordinated by Dr Ritika Jain, Assistant Professor, CDS held from (7th to 18th February, 2022)

AKAM Lecture Series “Chattampi Swamikal and the Deconstruction of the Sudra: Contradictions of the Savarna Caste formation in 19th century Kerala by Prof. T.T Sreekumar (17 February, 2022)

NRPPD webinar series-”From global to local tea markets: the changing political economy of tea production within India” by Dr. Natalie Langford (18 February, 2022)

Conference on “Kerala and the World Economy” coordinated by Prof J. Devika and Dr. Chidambaran G. Iyer and held at the Centre for Development Studies, Trivandrum (23rd to 25th February, 2022)

Discussion on ‘The Silver Line Project and the Future of Kerala: A Discussion’ by Prof. T. M. Thomas Isaac and Prof. K. P. Kannan held on 25 February, 2022 in connection with the Kerala and the World Economy Conference at CDS coordinated by Prof J. Devika and Dr. Chidambaran G. Iyer

Discussion on -”The Economic Survey 2021-22 and Union Budget 2022-23” by discussants Prof. R. Nagaraj, Dr. Chidambaran, Dr. M. Parameswaran and Prof. Sunil Mani was coordinated by Prof K.N. Harilal was held on (2 March, 2022)

Book Talk on “Governing Locally: Institutions, Policies, and Implementation in Indian Cities” coordinated by Prof Sunil Mani, Director and Professor, RBI Chair, CDS on (18 March, 2022)

AKAM Lecture Series: Webinar on “Reformism, Piety and Politics: A Study of Muslim Counter public through the Life and Works of Makthi Thangal” by Dr. Sherin B.S (31 March, 2022)

(D) PUBLIC LECTURES

The 11th P. K. Gopalakrishnan Lecture on “Migration and Pandemics” was delivered by Dr. Chinmay Tumbe, IIM-Ahmedabad, on 22 September, 2021.

10th Foundation Day lecture on “Dropping Out, Being Pushed Out or Can’t Get In? Decoding Declining Labour Force Participation of Indian Women” was delivered by Prof. Ashwini Deshpande, Ashoka University, on 20 October, 2021.

The 2nd K. N. Raj Memorial Lecture-“Butterfly Crossings: Environmental Ethics in a World of Multiplying Walls” was delivered by Professor Anand Pandian, Professor and Department Chair of Anthropology, Johns Hopkins University, USA, on 8 February, 2022.

The 12th B.G. Kumar Lecture on ‘The East Asian Miracle’, 30 Years Later, was delivered by Dr. Jong-II YOU, Dean, KDI School of Public Policy and Management, Sejong- si, Korea, on 21 March, 2022.

(III) NETWORKING

(A) PARTICIPATION OF FACULTY IN CONFERENCES/ SEMINARS ELSEWHERE

OUTSIDE INDIA

K.N. Harilal

Participated as discussant at the Seminar on ‘South Asian Perspectives on Wage Theft and Access to Justice: A Virtual launch of Wage Theft Studies in Bangladesh, India and Nepal,’ Migration Forum in Asia, Philippines, 18 July 2021.

Hrushikesh Mallick

Presented a paper on ‘Do Education and Vocational Trainings Lead the Indian Workforces to Choose Self-Employment over the Salaried Employment? Evidence from the Non-Farm Sector,’ at the Conference on *Evidence for Development: South Asia*, What Works Global Summit Secretariat, Campbell Collaboration and GDN during 6-7 September 2021.

Jayaseelan Raj

Participated in the International Workshop on ‘Labour in India at the time of a Pandemic’, University of Sussex, UK. 2021. (via online) *Waiting to Return: Joblessness and Uncertainty among Gulf Returnees in Kerala*. (With Sumeet Mhaskar and Meenuka Mathew)



Weekly (Friday) Seminar in Anthropological Theory, Department of Anthropology, The London School of Economics and Political Science, UK. (2021) (via online). *Intimate Precarity: Kinship and Labour in India's Tea Plantations*.

Praveena Kodoth

Presented a paper 'Navigating Informality: Indian domestic workers in the Middle East', Migrant domestic workers' at Conference, session 1: narratives of power in global and historical perspective, University of Petra, Amman on 15 February, 2022.

Ritika Jain

Presented a paper, 'Information and Communication Technology and Female Employment in India,' in the Globelics Conference, Costa Rica, October, 2021.

Sunil Mani

Made a presentation of the paper, 'Innovation Performance Of India's Pharmaceutical Industry vis-a-vis The IT Services Industry,' at the Intellectual Property and Technology Catching Up (IP-CIT) Workshop, University of Tokyo on December 15, 2021.

Delivered a Lecture at Tokyo University on March 22, 2022.

Gave a talk on 'Resilience Strategies for Dealing With Crises;' to the Members of the College of Technology Management, National Tsing Hua University, Taiwan on March 30, 2022.

Tirtha Chatterjee

Presented a paper and chaired the session at the 'International Conference on Contemporary Issues in Economics', organised by School of Economics, XIM University, Odisha in association with Indian Council of Social Science Research (ICSSR), February 4-5 & 7th, 2022, (Online)

Vinoj Abraham

Participated in the IZA/FCDO ONLINE 'Short Course on Research Skills for South Asia', on September 14th and 15th 2021.

Participation of Students in Seminars, Conferences, Workshops

Suravee Nayak

Presented a paper titled 'Intersectional Inequalities and the (Un)Making of Labour in Coal Mines of Eastern India' at Beyond Resistance Conference organised by Institute of Political Economy, Carleton University, Canada, 3-4 March 2022. (Virtual)

Presented a paper titled 'The Politics of Migrant Labour, Precarity and Resilience in the Coal Mines of India' at CASI Graduate Student Workshop organised by Centre for the Advanced Study of India (CASI), University of Pennsylvania, Philadelphia, USA, 29 October 2021. (Virtual)

Presented a paper titled 'Land, Bargaining and the Negotiating Lives: A Case of Displacement in Talcher Coalfields of Odisha, India' at the 26th European Conference on South Asian Studies (ECSAS) organised by the University of Vienna, Austria, 26-29 July 2021. (Virtual)

Presented a paper titled 'Actors and Variegated Responses in the Production of Carbon Economy: A Case of Talcher Coalfields in Eastern India' at the International Conference of Development Studies Association (DSA) 2021 organised by the University of East Anglia, UK, 28 June-2 July 2021. (Virtual)

Participated in Summer School 'Politics, Development and Social Change in Contemporary India,' at the Department of Culture, Politics and Society, University of Turin, Italy. 5-9 July 2021 (Virtual)

IN INDIA

Beena P.L

Delivered an Invited lecture on 'Covid-19 Pandemic and Digital Economy in India,' in the conference on 'Weakening Covid 19 Pandemic: Sectoral and Spatial Dimensions in India,' at the Economics Department of Calicut University, Dr. John Mathai Centre, Trichur, 13 January 2022.

Presented a paper 'Towards an Employment Intensive and Environmental friendly Industrialisation in Kerala,' in the National seminar on 'Perspectives on Kerala Economy, Society and Polity,' at Public Policy Research Institute, Trivandrum, 17 June, 2021.

Chidambaran G. Iyer

Presented a paper 'Mobile Phone Manufacturing in India: A Study of Few Characteristics', online at the Centre for Technology, Innovation and Economic Research Seminar Series, Pune, on 14th July 2021.

Presented a paper 'Mobile Phone Manufacturing In India: A Study of Few Characteristics', presented online at the Madras School of Economics on 17th September 2021.

J. Devika

Presented a paper 'Writing Histories of/for the Present: Reflections on Intersectional Approaches.' in the international online seminar 'Why Do We Need To Talk About Caste?' organised by Raj Sekhar Basu, Calcutta University, supported by The Asiatic Society, Calcutta on 17-18 September, 2022.

Valedictory Address at International Webinar on 'Gender Studies Post 1990s: Technological Encounters and Narratives of Empowerment', organised by SD College, Alappuzha and Shivaji University, Kolhapur, 13 February, 2021.

Discussant for session 'Transformation of Women's Work in Coastal Communities', of seminar 'Between a rock and a hard place? The Impact and Effects of Climate Change, Covid-19, and Emerging Technologies of Communication and Governance on the Livelihood of Artisanal Fishing Communities in Kerala' organised by University of Sussex in collaboration with At Mascot Hotel, Thiruvananthapuram 25-26 May, 2022.

K.N. Harilal

Recording of a lecture on decentralization, 'An Introduction to Local Level Participatory Planning', at the Sree Narayana Open University, 12 July 2021.

Resource person, and gave Presentations on GST studies, at GIFT, Trivandrum on 12 July, 2021.

Presented a paper 'h CUSAT and Inter-University Centre for Alternative Economics, University of Kerala. Kerala Alternative and the Shadow of Global Accumulation of Capital' at the GIFT Lecture Series on Kerala Economy in Transition on 23 July, 2021.

Delivered a Lecture on 'Agriculture and the New International Economic Order,' at the ICSSR Capacity Building Programme on 23 August 2021, Kannur University.

Orientation Lecture on 'Towards 14th Five Year Plan' for Councillors of Trivandrum City Corporation on 5 August 2021.

Participant at United Nations Food System Summit (UNFSS) Counter Dialogue organised by Jan Sarokar, New Delhi, 2 September 2021.

Gave a lecture on 'Trade and Sustainable Development' at the Three day National Seminar organised by Newman's College, Thodupuzha on 23 September, 2021.

Lecture on 'Trade and Sustainable Development', at the UGC Refresher Programme, Calicut University 8 December, 2021.

Presented a paper 'Specialisation Trade and Sustainability' at SN College Kannur, Economics Department, 11 December, 2021.

Delivered the P.K. Gopalakrishnan Memorial Lecture, 'Knowledge Economy and Development Planning', at the Kerala Science Congress 2022, on 10 February, 2022

Chaired Panel Discussion on Union Budget 2022-23, at GIFT, CUK, SB College, 10 February, 2022

Jayaseelan Raj

Presented a paper on *An Anthropology of State and Development in Kerala. 2022.* at the Workshop on 'The State, Society and Market: Understanding the Dynamics and Interface', Madras Institute of Development Studies, Chennai during 21-25 March 2022.



M. Parameswaran

Gave a talk on 'Higher studies in Economics: Preparation and Practice,' at St. Joseph's College, Devagiri, Kozhikode on 16 May, 2021.

Praveena Kodoth

Presented a paper 'International migration, COVID 19 and Employment: Findings from a Kerala Village,' at Kerala in the World Economy Survey, 24 February, 2022.

Presented a paper 'Analysis of Dowry in Contemporary Kerala' at a Workshop organised by the Women and Child Development Department on strengthening Dowry Prohibition in Kerala, Government of Kerala, 25-26 March, 2022.

Ritika Jain

Presented a seminar on 'Impact of COVID-19 Lockdown on Profitability of Firms in India,' for SAMVAAD India, September 2021.

Presented a seminar on 'Impact of COVID-19 Lockdown on Profitability of Firms in India,' in CTIER, Pune, September 2021.

Presented a seminar on 'Impact of COVID-19 Lockdown on Profitability of Firms in India,' at Indian Institute of Management, Kozhikode, September 2021.

Presented a paper, 'Impact of COVID-19 Lockdown on Profitability of Firms in India,' in the Annual Conference on Economics and Public Policy, organized by the Jindal School of Public Policy, New Delhi, December, 2021.

Presented a paper, 'State Ownership and Dividend Decisions: Economic Versus Political Determinants,' in Rajagiri Conference of Economics and Finance, organised by Rajagiri Business School, Kochi, December, 2021.

Rajit Biswas

Taught a course in 'Industrial Organization' for MA level at the University of Calcutta during September 2021 to January 2022.

Sunil Mani

Presented a lecture on 'India's Pharmaceutical Industry vs. its Computer Software Industry: A Comparative Analysis of Their Innovation Performance,' at the Department of Economics, University of Kerala, Thiruvananthapuram on 19 May, 2021.

Presented a lecture at a project meeting, University of Tokyo on 'IPR System and Technological Catchup: Comparison of China, India and Thailand' on 30 June, 2021.

Presented a Lecture to PhD Scholars at CESS, Hyderabad on 28 July, 2021.

Participated on ISID Panel discussion on 'Harnessing Industry 4.0: Prospects and Challenges,' on 25 August, 2021.

Delivered a lecture titled 'Vaccine' at the 75th Platinum Jubilee Celebration S D College, Alappuzha, on 8 September, 2021.

Book Launch function Prof. Rakesh Basant's new book 'The Black Box: Innovation and Public Policy in India,' on 13 September, 2021.

Attended the closed door round table discussion on 'India's R&D ambitions: Challenges and Imperatives' organized by Ananta Aspen Centre and the Centre for Technology, Innovation and Economic Research (CTIER) on 29 September, 2021.

Participant at the Working Group meeting of the Plantation Sector organized by the State Planning Board during October 4, 11 and 22, 2021.

Delivered lecture on 'India's Science, Technology and Innovation performance In historical perspective,' at the NIAS-DST Online Training Programme on "Policy for Science and Science for Policies" on 26 October, 2021.

Held Project discussion and presentation with Director, IIST, TVPM on 28 October, 2021.

Presented a paper on 'Science, Technology & Innovation Policy for the Sustainable Development Goals,' at the 17th ASIALICS 2021, The 3rd SEAC-STIPM Conference, on 4 November, 2021.

Roundtable II on 'India's R&D Ambitions: Challenges and Imperatives by CTIER' Pune and Ananta Centre on 16 November, 2021.

Participated in NITI Aayog Think Tank meeting on 17 November, 2021.

Budget discussion by Finance Minister of Kerala on 18 November 2021.

ICSSR WORKSHOP :Productivity Growth from Technology Transfer in the Indian Manufacturing Sector: A firm-level study organised by Gokhale Institute of Politics and Economics (GIPE), Pune & School of Business Management, Narsee Monjee Institute of Management Studies (NMIMS), Mumbai, on 'The role of industrial policy in market-friendly economies: Case of COVID-19 vaccine R&D and its manufacturing in India and the USA,' on 24 November, 2021.

Selection Committee for the post of Professor in the School of Public Policy at IIT- Delhi on 4 December, 2021.

Meeting with Hyun Hee Ban, Chief of Social Policy, Planning and Evaluations (SPME) UNICEF India on 10th December 2021.

Meeting with Chief Minister, Kerala on January 5, 2022.

Project presentation (Estimating size of India's space economy) with IIST team on January 05, 2022

Azadi Ka Amrut Mahotsav series lecture at National Statistical office, Trivandrum on Time Use survey 2019 on 27 January, 2022.

Discussion on Industrialisation for Employment and Growth in India Jointly by CDS-ISID-Cambridge University press on 28 January, 2022.

Participated in a Panel discussion on Budget 2022 - IIT Indore on 4 February, 2022.

Participated in the 5th meeting with Leading Thinks in India, NITI Aayog, 8 February, 2022.

Delivered a lecture on Understanding India's balance of payment at the Teaching Innovations

Programme in Economics (TIPE), CDS on 16 February, 2022.

Presented a lecture on "Automation and its effect on manufacturing employment" at the ISID webinar on 22 February, 2022.

Delivered a lecture online at the R&D Managers of future, topic: Policy instruments for investing in innovation in India organised by CTIER Pune and Ahmedabad University on 22 March, 2022

Srikanta Kundu

Delivered Invited lecture on 'Threshold Panel Model' and 'Panel Unit Root Test' in the Winter School on *Panel Models and their Applications* organised by Indian Statistical Institute, Tezpur on 26-27 January, 2022.

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 17-18 November, 2021.

Invited lecture on 'Volatility Model in Time Series Econometrics: Multivariate Analysis' in a national workshop on advanced empirical economics and econometrics organised by the School of Economics, XUB University, Bhubaneswar on 2 June, 2021.

Tirtha Chatterjee

Participated in the 'Annual Conference on Economics and Public Policy 2021', organised by Jindal School of Government and Public Policy, O.P. Jindal Global University, during 20-21 December 2021, (online)

Vinoj Abraham

Invited seminar (online) on 'Changing Nature of Employment and Work in India' at the Aryabhata college, New Delhi, online on 5 September, 2021.

Invited seminar (online) on 'Skill, Entrepreneurship Development and Employability: Challenges and Opportunities of NEP 2020' at Sardar Patel Institute of Economic and Social Research (SPIESR), Ahmedabad on 11 August, 2021.



Panelist on the UNRCDD stakeholder consultation meeting held online on the Stakeholder Consultation on Leveraging Evidence-Based Policy Research for the Sustainable Development Goals (SDGs) in India, towards the Common Country Analysis (CCA), on 16 August 2021.

Online invited lecture on 'Employment, Livelihood Amidst the Pandemic in Kerala,' delivered for St. George College, Aruvithura on 6 July, 2021.

Online Kerala Budget discussion on 5 June, 2021 at PPRI, Kerala Government, India.

Participation of Students in Seminars, Conferences, Workshops

Ajil M.

Presented a paper titled 'Containing the Fertilizer Subsidy in India: An Analysis of Fertilizer Policies and its Impact' at the National Seminar on 'India's Economic Development and Self Reliance since 1947' as a part of Azadi Ka Amrit Mahotsav, organised by School of Economics & DSW Office, University of Hyderabad, on 18th and 19th March, 2022.

Sanjay Kumar Rout

Presented a paper 'Trade & Financial Openness and Income Inequality in India: The Role of Technology Diffusion,' in the 7th IIFT Conference, Kolkata, India on 17th December 2021.

Presented a paper 'Globalization, Technology, and Income Inequality in India: An Implication for Post Covid 19 Period,' at the Evidence for Development: South Asia Conference held on 6-7 September, 2021.

Suravee Nayak

Presented a paper titled 'Changing Spatiality and the Emergence of Environmental Politics: Explorations From Global South' (with Mijo Luke) at Conference on Spatiality organised by Department of Humanities and Social Sciences, IIT Madras, 9-11 April 2021. (Virtual)

Participation by Honorary Fellows

K. P. Kannan

Delivered the CDS 50th Foundation Year Lecture, titled 'Revisiting the Kerala Model of Development its Virtuous Cycle: Spectacular Successes, Spectacular Failures and the Outlook for Future,' on 8th January 2021 held at Centre for Development Studies, Trivandrum.

Delivered a lecture 'Migration and its Impact on the Kerala Economy,' held at CDS on 13 August 2021, Trivandrum.

Gave a lecture organised by the Gulati Institute of Finance and Taxation and Kerala Economic Association titled 'The Downside of Kerala Model of Development: Some Questions and Reflections,' at GIFT, Trivandrum on 11 June 2021.

Delivered a lecture on 'Social Economy in the Kerala Context: Its Significance and Challenges,' organised by the Kerala Sastra Sahitya Parishad, Kozhikode on 8 June 2021.

M. A. Oommen

Presented a paper on 'An Interpretative introduction to Kerala's Development Trajectory: Working towards a New Architecture' at the webinar on Public Lecture Series : Kerala Economy in Transition – Lecture series 1. '*Perspectives Kerala's Development Experience*' jointly organised by Gulatai Institute of Finance and Taxation, and Kerala Economic Association on Trivandrum on 29 April 2021.

Presented inaugural address : 'Fiscal Federalism In India at The National And Local Level: A Critical Assessment of the Current Situation' in a Webinar series on Macro-Economic Issues in Indian Economy, organised by St. Joseph's College (autonomous), P G & Research Department of Economics & IQAC Devagiri on 4 August, 2021.

Lecture on 'My Academic Journey: Some Reminiscences' at 4th Foundation Day Lecture in honour of Professor M A Oommen and Distribution of M A Oommen Endowment Award 2021, at Dr. John Matthai Centre, Thrissur on 2 November, 2021.

Webinar on Book Release and Felicitation of Professor M A Oommen on his 90th birthday organized by Gulati Institute of Finance and Taxation, Trivandrum on 24/02/2022. Book Release function inaugurated by Shri. K.N.Balagopal, Minister of Finance, Govt. of Kerala and presidential address by Dr. Thomas Isaac, Former Minister of Finance, Govt. of Kerala, Distinguished Fellow, GIFT. The book on 'Essays on Fiscal Decentralisation to Local Governments in India', released by Professor C Rangarajan, Former

Chairman, Economic Advisory Council to the Prime Minister & Former Governor, RBI etc., and the book received by Professor V K Ramachandran Vice Chairman. Professor Sally Wallace presented a short video introducing the book. Professor C T Kurien Professor, DR. D K Srivastava, Professor N V Varghese, Professor K N Harilal, Dr. Joy Elamon, Professor K P Kannan, Professor Sunil Mani, Dr. John Samuel made a speech on this occasion.

(D) SERVICES TO ACADEMIC COMMUNITY

(a) FELLOWSHIP FOR PROMISING TEACHERS

Under the K N Raj Fellowship programme, the Centre has been offering fellowships to a maximum of four promising teachers per fiscal year. The awardees are selected from those who participated in that year's TIPE programme. The fellowship is meant to develop quality teaching resources that can be used in the classroom. During the year, four such fellowships were awarded. The details are in the following Table :

Sl. No.	Name of Fellowship Recipient	Affiliation	Title
1	Dr. Raseena K K	Assistant Professor, Research Dept. of Economics, Sri C Achutha Menon Government College, Thrissur	Regression Analysis
2	Ms. Sreeja V	Assistant Professor, Thunchath Ezhuthachan Malayalam University, Tirur, Malappuram	Thematic analysis of Human Development Reports published by UNDP from 1990 to 2020
3	Ms. Kalyany Sankar	Assistant Professor, HHMSPB NSS College for Women, Neeramankara, Thiruvananthapuram.	Women in Indian Labour Market: Issues and Challenges
4	Dr. Pradeep P	Assistant Professor, Department of Economics, Sree Kerala Varma College, Thrissur	Contemporary Issues in Indian Economic Development

After an internal review, the Centre has since discontinued the programme.

(b) COLLEGE MENTORING PROGRAMME

The College Mentoring Programme (CMP) is one of the three 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 adopted the Department of Economics, Faculty of Social Sciences of Government College, Nedumangad, Trivandrum.





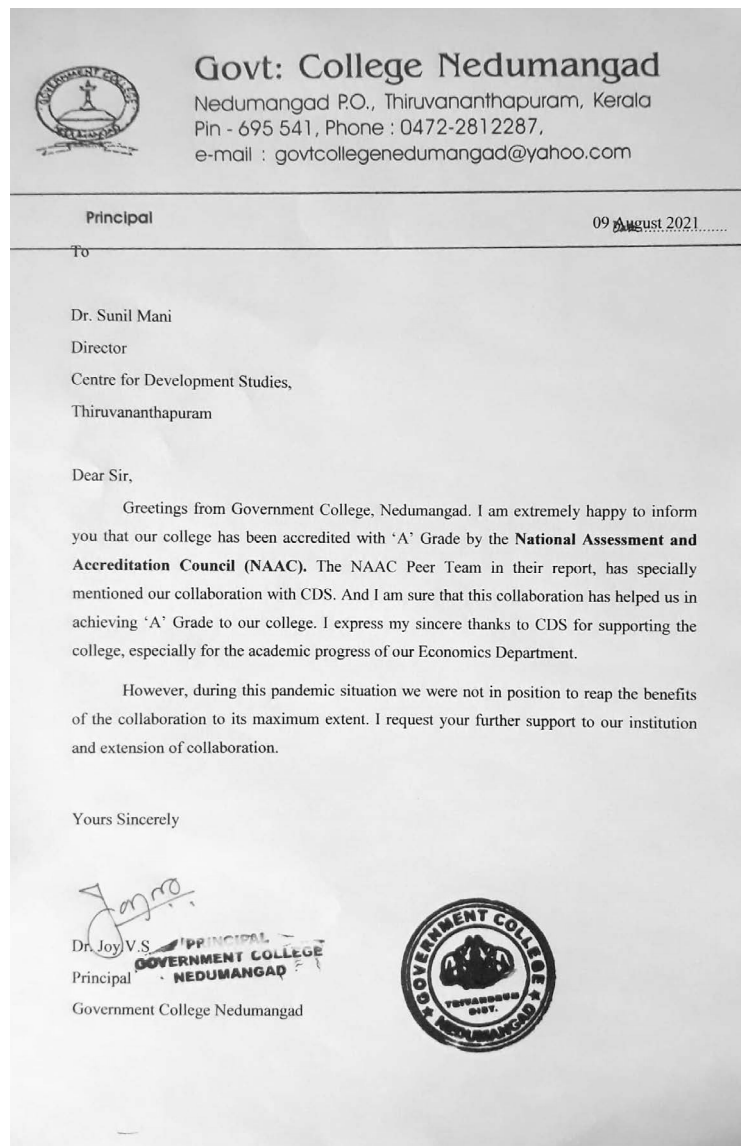
Government College, Nedumangad is a higher education institution located in a rural area not too far from the small town of Nedumngad in the Trivandrum District. The college, established in 1981, has a total strength of 1019 students, of which 80 per cent are women. Further, students in the reserved category account for about 62 per cent. The college is affiliated with the University of Kerala and is NAAC accredited with a B grade. It offers undergraduate degree programmes in Economics, History, Malayalam, Commerce, Mathematics and Physics and Masters in Economics, Commerce, History and Malayalam. The Department of Economics has three permanent lecturers and one guest lecturer and admits every year 55 students for the undergraduate degree and 18 for the postgraduate degree programme. The latter was started only in the academic year of 2018-19. The college has reasonably good infrastructure in terms of classrooms, seminar hall, a sufficiently good textbook-oriented library and limited computing facilities. However, all of them need some sprucing up and refurbishment.

The CDS team had a detailed discussion with the college authorities, especially on how CDS could be of any assistance to the Department in strengthening the hands of the faculty towards improving the quality of instruction and in the infrastructural support for such an enhancement. The discussions that ensued resulted in the following:

- CDS faculty will help the College faculty in improving the teaching of micro, and macroeconomics at the undergraduate level, Econometrics and Research Methods at the postgraduate level and also some help in designing the project reports that the Master's students will have to do at the second year of their programme;
- The three faculty members of the Department will be given free membership of the K N Raj Library at CDS for three years, to begin with, beginning April 1, 2019.
- All the three teachers of the college were trained in our TIPE programme.
- Both the faculty and students will be placed on the CDS' mailing list for all academic events at the Centre, such as the seminars, special lectures and the annual "India's Economy and Society" series of workshops;

- CDS faculty will also occasionally visit the college to deliver lectures/seminars on mutually agreed topics and at mutually agreed timings;
- CDS faculty visited the college and offered lectures in 'Econometrics' to the Post Graduate students of the College; and
- We have donated 194 books on economics to the college's library.

The CMP with the college was on for three years from 2019-20 and was completed successfully on March 31, 2022. According to the college, the programme went a long way in the college securing the coveted NAAC accreditation with Grade A. See the letter from the Principal of the college



Considering the programme's success, we have started mentoring the Department of Economics of Government College, Attingal, from November 1, 2021 until March 31, 2022, we have trained three of the eight teachers from the college in our TIPE programme, donated a set of 54 books in Economics to their library, and strengthened their computing and digital classroom environment. Further, all the teachers and research students of the college were given complimentary membership to the K N Raj Library at CDS. Now that CDS is open for in-person seminars and lectures, students and faculty of the college can attend all public lectures, weekly seminars and conferences at CDS.

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

MEMBER OF COMMITTEES

J. Devika

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

Beena P.L

Member, Board of Studies, Economics Department, Mar Ivanios College, Trivandrum.

Member, Ethics Committee, Loyola College, Trivandrum.

K.N. Harilal

Member, Board of Management, Kerala Bank.

Jayaseelan Raj

Member, Technical Advisory Committee, Labour and Employment, Government of Kerala.

Sunil Mani

Chaired the Working Group on Plantation Policy, 14th Five Year Plan, Kerala State Planning Board.

Member- Court, JNU, New Delhi

Member- Academic Committee, JNU, New Delhi

Vinoj Abraham

Member, Executive Committee of the Indian Society of Labour Economics, 2021-22.

Member, Board of Studies, , Calicut University, Calicut, Kerala, 2020 -21.

Member, RAC committee for PhD students, , Kannur University, Kerala, 2020-21.

Member, Board of Studies, Demography Department, Kerala University, Kerala, 2020-21.

Member, Board of Studies, MG University, Kerala 2020-21.

Member, Research Group of VVGNI appointed by NITI AAYOG to study Gig and Platform workers in India, June-November 2021.

Member, working group on "Women and Employment" of the State Planning Board constituted by Government of Kerala, 2021.

Member, working group on "Labour in the informal sector" of the State Planning Board constituted by Government of Kerala, and convenor subgroup on informal sector labour, 2021.

Convenor and member, Government Committee formed in September 2021 to oversee the progress on the "Compendium on plantation crops" being prepared by NRPPD. The committee is chaired by Joint Secretary, Plantations, Ministry of Commerce and Industry, Government of India.

(d) TEACHING, CO-ORDINATING, TRAINING PROGRAMMES AT CDS/ EXTERNAL TEACHING

Abhilash T

Delivered a Lecture on 'Understanding Social Exclusion,' in Teaching Innovations Programme in Economics (TIPE) Centre for Development Studies, Thiruvananthapuram, 7-18 February, 2022.

Presented a paper in Kerala and World Economy Conference titled 'Beyond the Romantic Idealism: State intervention and inclusion of Adivasis in Kerala,' Centre for Development Studies, Thiruvananthapuram, 23-25 February, 2022.



Beena P.L

Chairperson of a seminar titled 'Can Knowledge Drive Kerala's future Industrial Growth?' by Prof. Jayan Jose, *Public Lecture Series*, GIFIT, Trivandrum, Kerala.

Lectures delivered for various Training programmes held at CDS (TIPE, ICSSR sponsored programme on Indian Economy and Data Base on Indian Economy)

Conducted Training Programme on 'Indian Economy' during June 2021, sponsored by ICSSR.

Member and Convenor of the Research Unit on International Migration, CDS.

Chidambaran G Iyer

Moderator for the webinar 'The Diffusion of Broadband Internet, Its Unequal Availability and Crony Capitalism' on 30th August 2021.

Presented webinar on 'Determinants of Process Innovation in Indian Industry: An Empirical Exploration' on 19th November 2021.

Presented jointly with Sunil Mani webinar on 'Diffusion of Digital Payments in India, 2011-12 through 2020-21, Role of its Sectoral System of Innovation' on 2nd February 2022.

Co-Coordinator for the *Conference on Kerala and the World Economy 2022*, held online from 23-25 February 2022.

Taught 2 sessions in Econometrics in the Teaching Innovations Programme in Economics held during 17-18 February, 2022.

Presented webinar on 'External Sector' in the Annual discussion on Economic Survey 2021-22 & Union Budget 2022-23, held at the Centre on 2nd March, 2022.

Evaluator for three presentations for the course on Indian Economy for second semester PhD students.

MA Interview Committee for MA 2021 admissions.

Setting few questions and evaluating that part of the PhD entrance exam held in 2021.

J. Devika

Sessions at Refresher Course in Malayalam and Kerala Studies, UGC-Human Resources Development Centre, University of Calicut, 8 December, 2021.

Organized the *Kerala and the World Economy Conference*, held during 23-25 February, 2022. <https://cds.edu/event/kerala-and-the-world-economy-conference-2022/>

Webinar on 'Disciplinary vs. Neoliberal Governmentality?' Understanding Agency in the Pallichal Panchayat, 28 May 2021. <https://cds.edu/event/seminar-rulsg-prof-j-devika-2/>

Booktalk webinar on the book 'Governing Locally' by Babu and Suraj Jacob. 18 March 2022. <https://cds.edu/event/book-talk/>

Organized three AKAM lectures, from January 2022 to March 2022.

Chandril Bhattacharyya

Taught 4 classes in TIPE programme conducted at CDS during 7-18th February, 2022.

Gogol Mitra Thakur

CDS seminar on topic 'Natural Disaster and the Economy: Evidence from the Kerala floods of 2018' held on 17th September 2021.

Delivered four lectures on 'Macroeconomics' in Teaching Innovations Programme in Economics (TIPE) in CDS during 7-18th February, 2022.

K.N. Harilal

Participated in the Panel Discussion on Trade, at the Seminar on Kerala in the World Economy, on 24 February 2022.

Moderated the Panel Discussion on 'Economic Survey 2021-22 and Union Budget 2022-23' held on 2 March, 2022 at CDS.

Hrushikesh Mallick

Served as a panelist speaker to speak on the 'State of the Economy and the Union Budget-2021-22' held at CDS on February 2021.

Presented a paper in a faculty open seminar at CDS on 'Do Education And Vocational Trainings Lead The Indian Workforces To Choose Self-Employment Over the Salaried Employment? Evidence from the non-farm Sector,' on 06 August, 2021.

Chaired the NRPPD webinar series session presented by Dr. Srikanta on 21st December, 2021.

Meeting with officials from Higher Education Commission, led by Prof. Shyam Mohan at CDS on 3 December, 2021.

Moderator for a Panel Discussion on 'Licensing and Regulatory Regime for Digital Banks in India,' at CDS on 14 December, 2021.

Presented a paper at CDS, titled 'Diffusion of Digital Payments in India, 2011-12 through 2020-21, Role of its Sectoral System of Innovation' on 2 February, 2022.

Chaired a Panel discussion on 'Trade' at the Conference on Kerala and the World Economy at CDS on 24 February, 2022.

Chaired the discussion on 'The silver line project and the future of Kerala,' at the Conference on Kerala and the World Economy at CDS on 25 February, 2022.

Presented a paper on the 'India's Space Economy 2011-12 through 2020-21, Its Size and Structure' at CDS on 25 March, 2022.

M. Parameswaran

Gave seminar at CDS titled 'What Lowered Inflation in India: Monetary Policy or Commodity Prices? 1. on 12 November, 2021.

Rajit Biswas

Participated in the TIPE programme and took four classes in microeconomics conducted at CDS during 7-18th February, 2022.

Ritika Jain

Organized the TIPE-2022 programme, attended most of the webinars, part of various RACs of PhD and MPhil students.

Panelist at the 79th Rajagiri Round Table - Securing the Educational Rights of Girl Child, January 2022.

Srikanta Kundu

Six lectures on 'Econometrics theory and Application' in Teaching Innovations Programme in Economics (TIPE) at CDS during 17-18 February, 2022.

Sunil Mani

Presented a paper on 'The role of industrial policy in market-friendly economies-Case of COVID-19 vaccine R&D and its manufacturing in India and the USA' at CDS on 2 July, 2021.

Thiagu Ranganathan

Gave lectures at the Teaching Innovations Programme in Economics (TIPE) programme at CDS during 7-18th February, 2022.

Gave a lecture on 'Agricultural Household Surveys' at the workshop on Database in Indian Economy, held at CDS on 11 June, 2021.

Lecture on 'Microeconomics - Social Preferences in Economics' at the ICSSR Sponsored Capacity Building Programme held during 26 July-6 August, 2021.

Co-ordinator of the ICSSR Sponsored Capacity Building Programme held during 26 July-6 August, 2021.

Gave a lecture on 'Migration as Informal Insurance: Evidence from ICRISAT Village Level Studies,' at the Training Programme on Migration on 10 August, 2021.

Resource person, Executive Post Graduate Programmes, IIM Kozhikode.



Resource person, Post Graduate Programme, IIM Kozhikode.

Resource person, Capacity Building Programme, MG University.

Tirtha Chatterjee

Delivered 2 lectures at the Workshop on Data Base in Indian Economy, held at CDS on 11 June, 2021.

Delivered 2 lectures on 'Econometrics' at the Teaching Innovations Programme (TIPE) during 7-18th February, 2022.

Gave one lecture at the Migration Methods workshop during 9-13 August, 2021.

Vinoj Abraham

Two lectures on 'Labour and Employment' for the ICSSR funded capacity building programme hosted by CDS on 27 July 2021.

Online lecture on 'The State of Poverty and Consumption Data,' at the State Level Webinar on 15th National Statistics Day organised by the Directorate of Economics & Statistics, Kerala, Thiruvananthapuram on 29 June, 2021.

Coordinator, course on Database on Indian Economy organised by CDS online, 7-18 June, 2021.

(d) OTHER PROFESSIONAL SERVICES RENDERED

J. Devika

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.

P.L. Beena

Reviewed Journal Articles

Chidambaran G, Iyer

Member of Advisory Committee to the Research Programme on International Migration from Kerala.

K.N. Harilal

Series Editor, Silver Jubilee Series on People Campaign, jointly brought out by GIFT and KILA.

Hrushikesh Mallick

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

Reviewed papers for a number of journals.

Evaluated a Ph.D thesis from Delhi University.

Sunil Mani

Member, Editorial Advisory Board, Research Policy (Elsevier).

Member, Editorial Board, Structural Change and Economic Dynamics (Elsevier).

Member, Editorial Board, International Journal of Technology and Globalization (Inderscience).

Member, Editorial Board, International Journal of Technological Learning, Innovation and Development (Inderscience).

External Referee to:

- Structural Change and Economic Dynamics,
- World Development
- Journal of Evolutionary Economics
- Journal of Quantitative Development
- Research Policy

Vinoj Abraham

On Editorial Advisory Board of, 'Indian Journal of Human Development.'

(e) **HOST TO WALK WITH SCHOLAR PROGRAMME**

Walk with a Scholar (WWS) scheme proposes to arrange specialized mentoring programmes for students in Under Graduate Programmes in Arts, Science and Commerce and to provide guidance for their future. It aims at giving necessary orientation to needy students, to prepare them for employment and give them necessary guidance, motivation and necessary mental support to identify appropriate areas for higher study as well as employment.

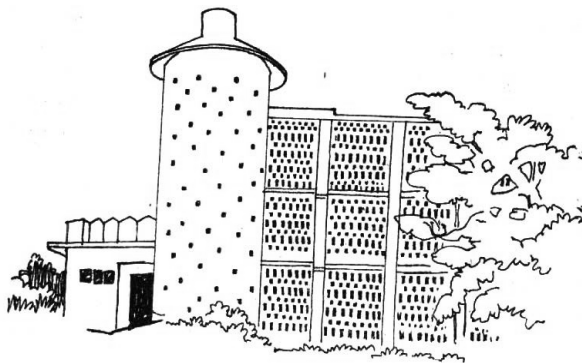
The mentoring scheme should be planned to identify the opportunities available for the scholars, the areas suitable for them, the manner in which the scholar should proceed before them and evolve ways by which they can be acquired.

However, this year as in the previous year due to the pandemic situation it was not possible for students to visit the CDS under the WWS programme.

AWARDS AND ACCOLADES



The CDS extends its hearty congratulations to Dr. Jayaseelan Raj for being the recipient of the *10th New India Foundation Fellowship* to write a book, "The Egalitarian Paradox, Dalits and the state in Kerala". The NIF fellowships (announced on 15 April, 2021) are awarded for a period of one year with an annual stipend of ₹18 lakh for each recipient, in addition to editorial and publishing support for individual projects. New India Fellowships are meant to facilitate original research on a wide range of topics centred on post-Independence India.



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 232 scholars who were admitted during 1975-2021, 103 scholars have been awarded PhD Degree: 94 from JNU and 9 from KU. 6 theses are under evaluation at JNU. 48 scholars are now in campus. 39 scholars have De-registered from the programme for employment etc., 7 scholars have Re-registered for submission of their thesis and 38 scholars discontinued from the programme to join elsewhere.

Overview of the Year

2021 admission:

Direct PhD:

7 students joined the PhD Programme in 2021.

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 2022, 10 out of 12 students submitted their MPhil dissertation. One student discontinued from the PhD Programme and the other 9 students got provisional admission to the PhD Programme.

As on 31st March 2022, six theses are under evaluation at JNU:

- *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. Vijayamohan Pillai
- *Inequality, Pro-Poor Growth and Development: The Indian Experience*
AMARTYA PAUL, 2015, ICSSR Fellowship
Supervisors: Dr. Srikanta Kundu & Dr. N. Vijayamohan Pillai
- *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
- *Finance and Development: Examining Financial Inclusion in terms of Dimensions and Determinants*
SANDHYA M. DAS, 2010
Supervisors: Prof. U. S. Mishra & Dr. N. Vijayamohan Pillai
- *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
- *The Agrarian Question and the Transition of Rural Labour in India*
YADU C. R., 2014, ICSSR Fellowship
Supervisor: Prof. Vinoj Abraham

Following four scholars have been awarded PhD degree by JNU since the last reporting year.

- *Educational Outcome of the Tribal Children in Odisha*

SUSAMA HANSDAH, 2015,
ICSSR Fellowship
Supervisors: Prof. U.S. Mishra &
Dr. Chinnappan Gasper

This thesis examines the educational outcome in terms of educational attainment and educational achievement among the tribal children in Odisha. Educational attainment is measured in terms of the number of years of schooling completed by a student and educational achievement is measured as reading score of the student in English. Primary data was collected from household level and school level. This study has considered three communities to understand the educational attainment of three different communities i.e., Munda, Kolha and Santal. The information was mainly collected from 371 household in order to understand the educational attainment of both schools going age (6 to 14 years and 15-16 years) and over age student (17-30 years). Similarly, study has considered six different communities, i.e., Santal, Bhuiyan, Lohar, Munda, Bathudi and Kolhain order to understand the learning achievement of 8th standard students in English. The information was mainly collected from school level in case of both government and private school including both rural and urban location. Firstly, cross tabulation, was used to understand the educational attainment among the three communities. Secondly cross tabulation, and multinomial logistic regression model was used to understand the factors affecting the educational attainment of Munda, Kola and Santal tribes. Similarly, Cross tabulation was used to understand the learning achievement among the six different communities. Again, cross tabulation and multiple regression model was used to understand the factors affecting educational achievement among the student. This study also included the qualitative evidence, in order to understand the factors affecting educational attainment and achievement of students. The result reveals that the dropout rate is much lower in case of primary level student comparatively secondary level and non-school going age student. Among the three communities, the dropout rate is higher for Kolha comparatively Munda and Santal within the age group of 6-14 years and 17-30 years student, whereas the dropout rate is higher for Santal comparatively Munda and Kolha within the age group

of 15-16 years. Especially girl is from Kolha tribes who have not much benefited from the schemes like KGBV and NPEGEL, who belong to the remote location. Household characteristics affects more than the school characteristics which affects the educational attainment of tribal children. Similarly, there is a difference in the performance of student in English in case of 8th standard student. The Kolha tribes perform poorly in English comparatively rest of the community. Household characteristics affects more than the school characteristics in the learning achievement of tribal children. Apart from this Location of habitation, lack of social and income mobility affects the educational attainment and achievement of tribal community. The study also briefly discusses how the COVID-19 pandemic has affected the access of tribal children to schooling owing to the digital divide and what the National Policy of Education, 2020, could imply for tribal children. The NEP 2020 neither acknowledges the problems wrought by the unprecedented pandemic and other longstanding issues related to tribal education nor suggests any creative roadmap to address these issues. The study explores the need for the state to evolve a tribe specific policy for primary and secondary education in view of structural problems that impede advances in educational attainment and achievement in scheduled areas in the country.

- *Activity-Participation of the Elderly in Kerala: Determinants and Contributions*

ARYA U. R., 2015, UGC Fellowship
Supervisor: Prof. S. Irudaya Rajan

When older persons are portrayed in general as economically unproductive, dependent, inactive and immaterial to progress, contributions made by the elderly through their engagement in various forms of productive activities become overlooked. In this context, the present study attempts to view the elderly in terms of productive ageing by focusing on their activity-participation, its determinants and benefits. With literature mostly concentrating on one activity at a time, the present study makes a comparative analysis of different productive ageing activities based on its determinants and contributions. The present study tries to look into the benefit-flow from activity-participation of the elderly to elderly persons themselves and their households. With Kerala being the leading State in India in terms of population ageing, the study is conducted in the setting of Kerala.



The study uses data from Building Knowledge Base on Population Ageing in India (2011) and Kerala Ageing Survey (2013). In addition to secondary data sources, Case Studies are also used. The study employs methods such as Simple Bivariate Analysis, Chi-square Analysis, Characteristic Odds, Pearson Correlation Coefficients, Ordered Logistic Regressions, and Explanatory Analysis.

Study results indicate that a large number of elderly persons in Kerala participate in one or the other or multiple types of productive ageing activities. Though the share of participants is 10 per cent only for remunerative work, elderly persons in Kerala show their presence in vast numbers in unpaid activities. Further, a considerable share of elderly participants in the State engage in both paid and unpaid productive ageing activities. These, though give a somewhat optimistic picture of the productive elderly group in God's Own Country from one side, from the other side, especially in connection with unpaid productive ageing activities, show the share of elderly participants whose contributions are invisible in the National Income Accounts.

Engagement of elderly persons in productive ageing activities is influenced by different sets of factors such as individual factors, household factors, community-based factors, and support system-based factors. There exist differences across activity-forms, activity-domains, and activity combinations in terms of the manner in which different factors influence the same. These show the need to deal with the determining factors, depending on the forms/ domains/ combinations of activities to be promoted.

Also, disparities are evident in terms of benefits received by elderly persons from their participation in different domains of activities. When low levels of involvement in paid activities have relatively more possibility to drive to high levels of awareness, high levels of autonomy and high levels of overall-self-development, moderate levels of participation in paid activities have relatively more chance to drive to high levels of self-care, and high levels of involvement in remunerative work have comparatively more possibility to lead to high levels of subjective wellbeing. Unlike in the case of remunerative work, for all unpaid activities, irrespective of dissimilarities among the same, highly intense participation has fairly more tendency to boost high levels of self-development (indicators and overall) and vice-versa. Further, when activity-combination

possibilities are taken, the relative effectiveness of 'paid work- caregiving- voluntary activity' combination in promoting high levels of awareness, autonomy, self-care and overall self-development and relative advantage offered by 'voluntary activities' in promoting high levels of subjective wellbeing offer a new path which could be utilised to promote self-development of elderly persons in a region which portrays the elderly as ignorant, dependent, disappointed and not concerned about their self-development. Furthermore, the influence of activity-participation on self-development is shaped by many factors.

Besides, there can be both direct and indirect benefits accruing to other members of the household as a result of the activity-participation of the elderly. Contributions made by senior citizens to other members in their household as a result of engagement in productive ageing activities by the former have both monetary and non-monetary faces. When expenditure pattern made by elderly persons to their household as a result of the income the former earns as compensation from paid work is a source of financial support, there are many non-financial gains received by the household which result from participation of the elderly in productive activities and the recognition of the same requires a much more in-depth view.

In a nutshell, the thesis questions the prevailing 'liability-addressing' given to the elderly by focusing on productive ageing activities. The study calls for public policy to implement adequate measures aiming at the promotion of productive-cum-pleasurable ageing activities with an understanding of the factors encouraging participation in different productive ageing activities and benefit-flow from engagement in different productive ageing activities to reap more benefits efficiently for individuals, families, economies and societies.

- *Farm Households in India: Acquisition and use of Information*

ARITRI CHAKRAVARTY, 2015,
ICSSR Fellowship
Supervisors: Dr. Srikanta Kundu &
Prof. Manmohan Lal Agarwal

This thesis explores the information seeking behaviour of Indian agricultural households using a nationally representative data. The 59th and the 70th Round of NSSO surveying Indian farmers show that access to

information has stagnated at 41 percent even after the introduction of pluralistic demand-driven policies. Access was highest from progressive farmers and media while it was lowest from public channels and NGOs. Also, farmers using information reported that it was useful and beneficial. This motivates the thesis to explore systematic differences in access and use of information for deriving policy tools to address the existing asymmetry and stagnation in access.

In the presence of information asymmetries, actual production fails to occur at the frontier, resulting in inefficiencies. Information can lead to a reduction in inefficiency by bringing production closer to the frontier and hence, achieve higher agricultural productivity. The first research question tests this hypothesis for agricultural production using cross-sectional data from NSSO 70th Round. Owing to the presence of multiple outputs, joint inputs and output-specific inputs, efficiency is calculated by a new technique developed by Cherchye et al. (2013), which acknowledges this type of data and yields better results compared to standard data envelopment analysis (DEA) techniques. Technical efficiency of agricultural production is calculated across households for each agroclimatic zone and results show that most of the households operate at an efficiency between 64-80 percent.

The impact of information use on technical efficiency is done using propensity score matching technique. The results show that farmers using information have a slightly higher efficiency than non-users. However, the effect varies largely across the type of source used - public, private and media. While public source has no significant impact, private has a statistically stronger impact on users and media has a smaller impact. This suggests that the true effect of information is undermined by the source effect.

Owing to the differential impacts across sources, the next question tries to identify demand-side factors determining access to information and its variability across different sources. Using descriptive statistics and appropriate econometric tools it has been found that households with better socio-economic attributes are more likely to access information and from multiple sources. In particular, well-educated households belonging to upper social strata are more likely to access information and that too predominantly from media. Poorer households as well as less educated and disadvantaged social groups access less information, from fewer sources and mostly from less human-

capital intensive informal sources like interpersonal contacts.

Since, access does not necessarily translate into use, the third question explores the existence of systematic differences between users and non-users of information. Around 80 percent of the households accessing information use it but source-wise use shows that use of media is lowest at 68 percent. To explore factors influencing use and reasons for lower use of media, probit regressions with selection conditions are used. The results identify education as a key factor determining the use of information as well as use of media. Availability of formal credit is another important determinant. Older farmers are likely to use media but they prefer to use it jointly with other sources instead of using it separately. Like in access, use of multiple sources are preferred by wealthier households.

Overall, this study finds evidence of asymmetric access to and use of information. It is biased against economically and socially disadvantaged households which constitute the major part of agricultural sector. One of the ways to address this might be through devising policies specifically targeted towards these households for increasing their access and use through better infrastructure, education and access to credit. Among other significant factors, education stands out as a strong factor influencing both access to and use of information as well as their variability across sources. Therefore, ways to spread and improve education need to be a priority to reduce information asymmetry. Although these policies have been in motion, special attention is required to implement them for gainful outcomes. As long as information gains are not realised, agricultural productivity will have limited scope for improving.

- *Innovation in the Informal Sector: Evidence from Urban Manufacturing Enterprises in India*

K. CHANDRA SHEKAR. , 2015,

ICSSR Fellowship

Supervisors: Prof. K. J. Joseph & Dr. P.L. Beena

The informal sector has grown over the last few decades in developing countries, especially in India. Just like other Micro Small and Medium Enterprises (MSMEs), the informal sector enterprises always have a pressure to improve productivity and stay ahead in the competitive market. Hence, they have to come up



with novel solutions and create a niche demand for their products and services in the market to meet their needs. In this regard, innovation is a very crucial aspect for growth and competitiveness of informal firms. Given their dominance, understanding the innovation activities of these enterprises may provide insight into innovations especially in the context of developing countries. Therefore, innovation activities of informal sector enterprises have also gained attention among academicians and policy makers in India.

Innovation activities in informal enterprises take place mostly through non-R&D measures and rely more on interactive learning and learning by doing. Learning process forms the basis for innovation in the informal sector enterprises through the transference and adaptation of knowledge towards the creation of value. Insights have been drawn from the innovation system literature, which emphasizes mainly on the role of interactive learning involved in the innovation process. The effectiveness of learning and the process of turning knowledge into value through innovations are impacted by specific characteristics of firms. The theoretical discussion leads to the formulation of an analytical framework that can be used in analysis of innovations in the informal sector enterprises.

The trends and performances of the informal manufacturing sector in India have been examined with respect to the type of enterprises, rural and urban classification in sixteen major states over a period of thirty years, 1984-85 to 2015-16. Specifically, it looks into aspects such as size, structure, and performance. In India, according to the Unincorporated Enterprise Survey, 2015-16, there were 19.66 million informal enterprises providing employment to 37.19 million people with gross value added worth Rs.1143.99 billion in 2015-2016. After independence, informal manufacturing sector in India has developed under a protectionist political regime. Own Account Manufacturing Enterprise's (OAMEs) dominance in urban areas was reduced, whereas Non-Directory Manufacturing Enterprises (NDMEs) and Directory Manufacturing Enterprises (DMEs) share increased rapidly in terms of employment and GVA. In advanced states like Delhi (UT), Gujarat, Maharashtra, Tamil Nadu, Punjab, and Haryana, there is a significant share of DMEs and NDMEs.

There is, however, a lack of secondary resources particularly on innovation activities of informal sector

enterprises in India, which is the primary focus of this study. Empirical evidence examining the effect of interactive learning processes on the innovation activities of informal manufacturing enterprises in India, however, remains scant and anecdotal. In order to compensate this dearth of data, we conducted a field survey using structured questionnaire in NCT-Delhi¹ during August- December, 2018. For methodological purposes, the study used multi stage stratified random sampling. After randomly selecting four industrial regions in NCT-Delhi and canvassing each selected zone, the study was able to identify informal manufacturing enterprises. A sample of 300 informal manufacturing enterprises was randomly selected using the information collected from the business directories of each selected region. Face-to-face interviews were then conducted using a structured questionnaire. The sample data captures widespread innovation activities in informal manufacturing enterprises, comprising of product, process and marketing innovations.

The survey's overarching goal was to gather information on the type of innovations that informal manufacturing enterprises use and adapt to meet the consumers changing needs and demands. The survey also sought to understand the role of networks, interactive learning and adapting innovations in the informal manufacturing firms.

Further, this study explores the determinants of innovation activities of informal manufacturing enterprises using data collected from the field survey. Firm's absorptive capacity and enhancement through interactive learning is expected to be critical in the innovation processes. Therefore, we examine the effect of formal and informal interactions on the different type of innovative outputs for informal manufacturing enterprises. The demand- and supply-side explanations that are valid for the Indian context as well as other developing countries are further explored. By differentiating the informal and formal interaction modes and focusing on product, process as well as marketing innovations, the study contributes to analytical extensions to the existing literature related to innovation studies. The empirical analysis supports the significant relation between interactive learning modes and the innovation outputs. In general, firm-level

11. Delhi (UT) accounts for one among the top states/UTs having highest share of enterprises in urban informal sector. Evidently, Delhi's informal sector enterprises are one among the top five states in terms of technical efficiency and GVA per worker. Hence as a first stage of stratified sampling this is extremely important to understand the innovative capabilities of informal manufacturing enterprises in NCT-Delhi, India.

capabilities seemed to benefit from informal as well as formal connections for the informal manufacturing enterprises. The result founds a relative importance of formal linkages such as subcontracting and membership in industrial associations over the formal linkages in introducing marketing innovations. In particular, the need for informal and formal relations, from which these skills seem to emerge further, highlights the essential role of human resources and entrepreneurial expertise in informal firms.

Our empirical analysis shows formal and informal interactions on the one hand, and in-house training, learning by doing, on the other side, are positive and significant determinants of innovation in informal manufacturing enterprises. Decomposing formal interactions, we have shown that subcontracting linkages with formal enterprises and membership in industrial associations enhance the likelihood of innovations. Our results also suggest that in-house training improves the technological capabilities of enterprises to create, adapt and transform knowledge into new or significantly improved product and processes.

An assessment on impact of innovations on the firm performance and how certain barriers influence the innovation outcomes in informal manufacturing enterprises is undertaken next. From the field survey data, it is observed that all respondents recognized the general importance of innovation for firm performance. The empirical analysis shows the significant influence of innovation in increasing productivity, sales growth and profit ratio in the firm. The findings can have major effects not only for informal enterprises in India but also for other developing countries.

Firms facing high innovation costs, poor facilities, lack of external financing, as well as inadequate educated workforce and difficulty in finding a cooperative partner in the market are negatively associated with innovation outcomes. Firms that face competition from foreign substitutes and formal regulatory burdens are also adversely affected. The findings highlight the significance of infrastructure as essential requirements in order to improve the innovations at informal manufacturing enterprises.

This thesis also examines the role of informal sector on innovation activities of urban formal manufacturing enterprises in India by providing the empirical evidence on firm level linkages between formal and informal sector. Such linkages are not limited to distribution, but are multidimensional. In India, interactions between formal and informal sector in product markets continue to grow in the face of increasing informality. This study suggests that the presence of highly competitive informal sector within the Industry enhances the innovation activities of the formal sector. Firm-level evidence, however, reveals informal sector competition as ‘unhealthy’ and one of the top three obstacles formal businesses face in India. With scant empirical evidence available, the study fills the gap in the literature by investigating the relationship between informal sector competition and innovations introduced by urban manufacturing enterprises in India. Using World Bank Enterprise Survey and Innovation Follow-up survey-2014, the econometric results show that informal sector competition has a negative effect on the introduction of product innovations while industry level informal sector competition has a positive effect on product innovation through the local knowledge spill overs from informal to formal sector. However, the informal sector competition found to have no significant effect on the probability of introducing process innovations. Further, we show, the inhibitive role of informal sector competition on innovation in urban formal manufacturing enterprises is more severe for firms with heavy regulatory burdens and is relatively weakened in firms with resource constraints. This suggests that informal sector plays an important role in NIS “National Innovation System” in India.

To conclude, this study provides empirical evidence on the innovation processes and its implications for the informal sector, which are key source of employment, livelihood and social transformation. The study highlights institutional intervention to further strengthening learning, innovation competition building systems for the informal sector in India. There is a need to design incentive schemes for both formal and informal economies, to facilitate non-competitive interactions and collaborations among them.



Current Studies

1. *Industrial Agglomeration: A Study of Indian Manufacturing Sector*
Smruti Ranjan Sahoo, 2016- ICSSR Fellowship
Supervisors: Dr. M. Parameswaran & Dr. Beena P. L.
2. *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
3. *Cash versus In-kind Transfers: The Indian Experience*
Indrajeet Kumar, 2016- UGC Fellowship
Supervisors: Prof. U. S. Mishra & Dr. Hrushikesh Mallick
4. *Grounded Globalisations and Shaping of the Local: A Political Ecology of Kerala's Midlands and Highlands*
Mijo P. Luke, 2016- MANF
Supervisor: Prof. J. Devika
5. *Dispossession, Labour Process and Production of Space: A Study of Coal Mines in Talcher, Odisha*
Suravee Nayak, 2016- RGNF
Supervisors: Prof. Vinoj Abraham & Prof. K.N. Harilal
6. *Market Structure and Technological Changes in India's Fertilizer Manufacturing Industry*
Ajil M., 2018- UGC Fellowship
Supervisors: Prof. Sunil Mani & Dr. M. Parameswaran
7. *Direct Corporate Taxation and its Effects on Financial Behavior of Indian Firms after the Macroeconomic Reform of 1991.*
Amit Nandan, 2018- UGC Fellowship
Supervisor: Dr. Hrushikesh Mallick
8. *Social Fragmentation and Development Disparity in India*
Cyril Jos Nazhicheril, 2018- UGC Fellowship
Supervisor: Prof. U. S. Mishra
9. *Low-Carbon Energy Industries in India – A Study of Solar Photovoltaics and Wind Turbine Manufacturing Industries*
Ladenla Lama, 2018- NFST
Supervisors: Dr. Hrushikesh Mallik & Prof. K. J. Joseph
10. *Analysing Public Private Partnerships in Indian Infrastructure Sector*
Papaiah Koppula, 2018- ICSSR Fellowship
Supervisors: Prof. Vinoj Abraham & Dr. Ritika Jain
11. *Environmental Sustainability in India's Manufacturing Sector: An Analysis of Firm Strategy and Impact*
Parijata Pradhan, 2018- UGC Fellowship
Supervisors: Prof. K. J. Joseph & Dr. Hrushikesh Mallik
12. *Broadband Diffusion and The Emergence and Growth of Platform Economy in India*
Rajkumar Byahut, 2018- UGC Fellowship
Supervisor: Prof. Sunil Mani

13. *Uncertainty and Economic Activity: A Study of Indian Industry*
Sandeep Pandey, 2018- ICSSR Fellowship
Supervisors: Dr. M. Parameswaran & Dr. Srikanta Kundu
14. *Changing Dynamics of Education, Skills and Employment: Evidence from India*
Shilpa Krishnan, 2018- UGC Fellowship
Supervisor: Prof. U.S. Mishra
15. *Credit Availability and the Performance of MSME Enterprises in India*
Vidyarani K., 2018- ICSSR Fellowship
Supervisor: Dr. Hrushikesh Mallick
16. *Crop Insurance and Farmer's Behaviour*
Binod Kumar Behera., 2019 - UGC Fellowship
Supervisors: Dr. Hrushikesh Mallick & Dr. Thiagu Ranganathan
17. *Contrasting the Quantum and Quality of Urbanization in India*
Kavya Lekshmi R. S., 2019 - UGC Fellowship
Supervisors: Prof. U.S. Mishra & Prof. Vinoj Abraham
18. *Innovative Entrepreneurship in India with a Focus on Kerala-based start-ups: An Empirical Exploration*
Krishnapriya V.S. , 2019 - UGC Fellowship
Supervisors: Prof. Sunil Mani & Dr. M. Parameswaran
19. *Internationalisation of SMEs: Evidence from the Indian Corporate Sector*
Rahees K. A. , 2019 - ICSSR Fellowship
Supervisor: Dr. P. L. Beena
20. *Structural Transformation of Indian Economy: Historical and Institutional Perspective*
Sabhavat Prem Kumar, 2019 - UGC Fellowship
Supervisors: Prof. Vinoj Abraham & Dr. Thiagu Ranganathan
21. *Disaggregation of Globalization, External Macroeconomic activity and Concentration of Income: An Analysis of Impact and Interlink from the Indian Economy*
Sanjay Kumar Rout, 2019 - UGC Fellowship
Supervisor: Dr. Hrushikesh Mallick
22. *Sector-wise Public Expenditure and Impact on Poverty*
Vaidik Chakraborty, 2019 - UGC Fellowship
Supervisor: Dr. Hrushikesh Mallick
23. *Role of Innovation System on Developing Entrepreneurship - A Comparative Study of Different Social Groups*
Vidyanand Thombare, 2019 - UGC Fellowship
Supervisor: Dr. P. L. Beena
24. *Women's Work and Agency in Urban India*
Annesha Mukherjee; Integrated MPhil/PhD 2018 - UGC Fellowship
Supervisors: Prof. Praveena Kodoth & Prof. Vinoj Abraham
25. *Analysis of Non-Farm Self-Employment in the Context of Economic Development in India*
Basit Abdullah; Integrated MPhil/PhD 2018 – MAN Fellowship



Supervisors: Prof. Vinoj Abraham & Dr. Ritika Jain

26. *Impact of International Migration on International Trade; An Empirical Analysis for India*
Sabeer V. C.; Integrated MPhil/PhD 2018 - UGC Fellowship
Supervisor: Dr. M. Parameswaran
27. *Parental Involvement, Aspiration, and Learning Outcomes of the Children: A Study in Rural Odisha*
Rajalaxmi Singh; Integrated MPhil/PhD 2018 – UGC Fellowship
Supervisor: Dr. Thiagu Ranganathan
28. *Health Behaviors, Health-seeking Behaviors, and Health Insurance Behaviors*
Swathi Krishna K.U.; Integrated MPhil/PhD 2018 – UGC Fellowship
Supervisor: Dr. Beena P. L.

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

29. **Vishnu K. Venugopal**; Integrated MPhil/PhD 2018- UGC JRF/SRF
30. **Ashraful Khalq**; Integrated MPhil/PhD 2018- UGC JRF/SRF
31. **Aishwarya Prakash**; Integrated MPhil/PhD 2018- UGC JRF/SRF
32. **Rahul Kamal**; Integrated MPhil/PhD 2018- UGC JRF/SRF

Topics of the following students are yet to be decided

33. **Amresh Senapati, 2020** – UGC Fellowship
Supervisor: Prof. Vinoj Abraham
34. **Ashish Biswas, 2020** – UGC Fellowship
Supervisor: Dr. P.L. Beena
35. **Devika Dileepkumar, 2020** – GoK for SC
Supervisor: Dr. Srikanta Kundu
36. **Gayathri P., 2020** – UGC Fellowship
Supervisor: Dr. Thiagu Ranganathan
37. **Himansu Sekhar Thapa, 2020** – NFOBC
Supervisor: Dr. Thiagu Ranganathan
38. **Rhythm Sparsh Narayan, 2020** – UGC Fellowship
Supervisor: Dr. Srikanta Kundu
39. **Shakuntala Ghadai, 2020** – NFSC
Supervisors: Dr. Thiagu Ranganathan & Dr. Tirtha Chatterjee
40. **Shonima Nelliath, 2020** – UGC Fellowship
Supervisor: Prof. Vinoj Abraham
41. **Sita Majhi, 2020** – UGC Fellowship
Supervisor: Prof. Vinoj Abraham

42. **Srimanjori Guha**, 2020 – UGC Fellowship
Supervisors: Prof. Praveena Kodoth & Dr. Ritika Jain

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

43. **Abhinav Surya L. T.**; 2021
44. **Indu Poornima S. V.**; 2021 – UGC JRF/SRF
45. **Mayur Jeevan Kamble**; 2021
46. **Mohammed Anfas K.**; 2021 – UGC JRF/SRF
47. **Rajesh K. P.**; 2021
48. **Richa Baruah**; 2021 – UGC JRF/SRF
49. **Sachin Varghese Titty**; 2021

Re-Registered for Submission

- *Industrial Agglomeration: A Study of Indian Manufacturing Sector*
Smruti Ranjan Sahoo, 2016- ICSSR Fellowship
Supervisors: Dr. M. Parameswaran & Dr. Beena P. L.
- *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
- *Cash versus In-kind Transfers: The Indian Experience*
Indrajeet Kumar, 2016- UGC Fellowship
Supervisors: Prof. U. S. Mishra & Dr. Hrushikesh Mallick
- *Dynamics and Sources of Industrial Output Volatility: Evidence from India.*
Atish Kumar Dash, (2008) – ICSSR
Supervisors: Dr. Hrushikesh Mallick & Dr. N. Vijayamohanan Pillai
- *Challenges and Prospects of Tourism as a Developmental Option: The Experience of Kerala*
Nalini Netto, (2001)
Supervisors: Prof. Vinoj Abraham & Prof. Amit S. Ray
- *Dispossession, Labour Process and Production of Space: A Study of Coal Mines in Talcher, Odisha*
Suravee Nayak (2016) – UGC RGNF
Supervisors: Prof. Vinoj Abraham & Prof. K. N. Harilal
- *Grounded Globalisations and Shaping of the Local: A Political Ecology of Kerala's Midlands and Highlands*
Mijo P. Luke (2016) – MANF
Supervisor: Prof. J. Devika

**(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 to apply. 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.

Ten students out of twelve of the 2018 Integrated MPhil/PhD batch submitted their dissertations and 9 of them have joined the PhD programme at CDS.

Among 2019-21 terminal MPhil batch, 2 out of 6 students submitted dissertations.

In pursuance of UGC Public Notice No.F.1-10/2020(CPP-II) dated 1st December 2021 and in continuation of JNU Circular No. Eval II/10/AC/2020, dated 9th April 2021, a further extension of six months beyond 31.12.2021, i.e., till **30th June 2022** has been granted for submission of thesis by terminal MPhil/PhD students.

**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. 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

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

(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).

2021 MA Admission

For students from India

In view of Covid 19, admission process of 2021 MA programme consisted of two stages.

- In the first stage, candidates were short listed for an online interview on the basis of their weighted-aggregate of marks (in percentage) in the Bachelor's degree.
- The shortlisted candidates were called for an online interview and final selection was done solely on the basis of the interview. 1350 Applications were received. 216 candidates were shortlisted for online interview
- 28 candidates were selected for 2021 MA admission. Finally 21 students joined the programme

For students from SAARC Countries

Three applications were received for MA Applied Economics Programme: - 2 from Nepal and 1 from Bangladesh. The Committee interviewed all the 3 candidates and selected Ms. Riya Regmi from Nepal for admission.

MA 2019 Batch

Degree awarded from JNU

MA 2020 Batch

4th Semester classes started on
1st April 2022

MA 2021 Batch

2nd Semester classes started on
2nd March 2022

MA Programme- 2020 batch**AE 208: project**

Sl No	Name	Tentative Project Title	Name of Mentors
1	Abdul Samad Majidi	Factors which affect the profitability and performance of private enterprises in Afghanistan	Dr. Ritika Jain
2	Adil Ahamed Hasan	Wages and contractualisation in organised sector	Dr. M. Parameswaran
3	Anagha M.	Financial Inclusion in India	Dr. Hrushikesh Mallick
4	Ancy A.	Women Education and Skill Formation	Dr. Beena P.L.
5	Anupama M.	A panel model on Public debt threshold for fiscal sustainability and effect of debt on economic growth	Dr. Srikanta Kundu
6	Ashutosh Anand	Compare Growth and Development between Bihar and Jharkhand	Prof. Vinoj Abraham
7	Bevan Halder	The impact of Covid-19 outbreak on crypto currency and stock market : A comparative analysis	Dr. Srikanta Kundu
8	Bijini Babu S.	Gender based violence	Prof. Praveena Kodoth
9	Della Raju	Gender and occupational mismatch	Prof. Vinoj Abraham



10	Hanna Stanley	Nutrition, Agriculture and Gender Differentials in India	Dr. Tirtha Chatterjee
11	Himakshi Boro	Corporate Social Responsibility	Dr. Ritika Jain
12	Isha Sharma	Effectiveness of Central Bank policies	Dr. Gogol Mitra Thakur
13	Kalayath Mohamed Shemil	Political Economy of Organic Farming	Dr. Thiagu Ranganathan
14	Kumari Shivanjali	Tribal vs non-tribal women labor force participation	Prof. Vinoj Abraham
15	Niranjana A.	Broad area of agriculture	Dr. Thiagu Ranganathan
16	Niruj Kumar Deka	Trade theory	Dr. Rajit Biswas
17	P. J. Nishok	Impact of covid-19 pandemic and Digital economy of India	Dr. Beena P.L.
18	Ravi R Dodalingannavar	Role of agriculture in building a steadfast economy	Dr. Jayaseelan Raj
19	Rohit Waman Meshram	Health and education ,growth of tribal peoples in Maharashtra and some others states	Dr. Gogol Mitra Thakur
20	Sandra Maria Augustian	Revenue productivity of GST across states	Dr.Hrushikesh Mallick
21	Sheersh Pradhan	International Trade	Dr. Rajit Biswas
22	Sreelakshmi K.R.	Economic and Health Cost of Obesity	Dr. Tirtha Chatterjee
23	Srivatsan M.	Analysing the trends of Multidimensional Poverty Index across Indian states	Dr. M. Parameswarn
24	Yeshi Wangchuk	Structural changes in Bhutan since the 1960s	Dr. M. Parameswaran

Certificate Course offered

Name of Course	Instructor	Course offered to
Financial Econometrics	Dr. Srikanta Kundu	MA 2 nd Year

Statement for MA & PhD Programmes during the period 2021-22

Year	Course	Number of students Applied	Number of students admitted	Number of students awarded
2021-22	MA	1350	21	16
	PhD	294	7	5
	Total	1644	28	21

(d) SHORT-TERM TRAINING PROGRAMMES

Teaching Innovations Programmes in Economics (TIPE)

7 – 18 February, 2022

Co-ordinator: Dr. Ritika Jain

In response to a felt need to improve the quality of economics education primarily at the undergraduate level, a month long training programme, Teaching Innovations Programme for College Teachers in Economics (TIPE), for teachers working in universities and colleges in Kerala was organised by CDS. The programme was organised under the K.N. Raj Training and Fellowship Programme funded by the Government of Kerala.

The focus of the course was to strengthen the fundamentals of economics education, by providing intensive week long training on economic theory, econometrics and on selected topics on Indian economy. The course consisted of taught sessions on specific topics. Four broad topics were covered during the course, Micro Economics, Macro Economics, Econometrics and topics in Indian Economy. This year the course was offered in the online mode. A total of 17 participants attended the programme.

Pathways of Social Research: A Methodological Training (ICSSR Sponsored Capacity Building Programme for Researchers in Social Science)

26th July, 2021 to 6th August, 2021.

Co-ordinators:

Dr. Beena P. L and Dr. Thiagu Ranganathan

The regular capacity building programme for doctoral candidates of SC/ST and other marginalised groups was conducted this year after a break in the last year due to the pandemic. This programme, funded by ICSSR, will engage with participants and provide them with intensive training on specific basic courses that form the core to teaching applied economics with an extra focus on delivering courses specifically through online mode of teaching. The ten day programme consisted of 33 participants who were selected from different parts of India.

(e) RESEARCH AFFILIATION

Ms. Naivedya Parakkal



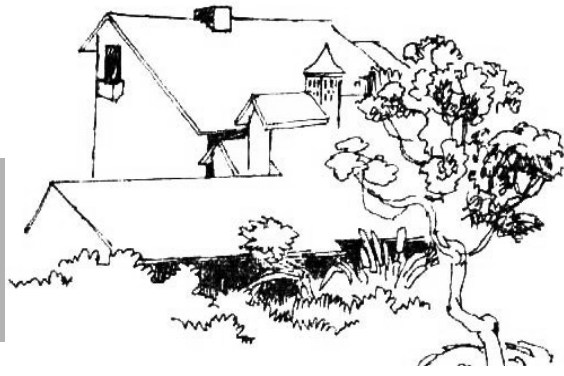
Ms. Naivedya Parakkal, Ph.D, Research Scholar, Department of Educational Studies, School of Education, University of Michigan has been granted research affiliation at the Centre for Development Studies for her research work on “Reimagining Global Development and Education: Youth Perspectives from Kerala, India”. Ms. Naivedya’s work while with CDS will be guided by Professor J. Devika. The proposed period of affiliation is for a period of one year from 14th July, 2021 to 13th July, 2022.

Dr. Nandita Das



Dr. Nandita Das, Professor and Director, College of Business, Accounting, Economics and Finance, Delaware State University, United States of America has been granted research affiliation at the Centre for Development Studies for her research work on “Sustainable Investing and Portfolio Management: A global perspective” Dr. Nandita’s work while with CDS will be guided by Professor Sunil Mani. The proposed period of affiliation is for a period of one year from 16th March, 2022 to 15th March, 2023.

5



ENDOWMENTS

Planning Commission Endowment in Development Economics

The Endowment Unit 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. 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.

The unit completed a paper 'State Policy and Recruitment of Domestic Workers and Nurses to the Middle East: A Comparative Political Economy Analysis,' *Economic and Political Weekly*, September 4, 2021. Another paper 'KadangotaMakkam and the delicate balance of matrilineal and spousal affections in north Malabar, (in Malayalam) <https://www.sanghaditha.com/wp-content/uploads/2021/09/september2021layout.pdf> was also published during the period. A five day workshop on Methods in Migration Research introduced the participants to a range of problems, data sources, analytical frameworks and techniques with specific reference to labour migration.

Seminar presentations included one international seminar held at the University of Petra in February and two presentations at the national level. An invited lecture on 'Dowry in contemporary Kerala' was also held as a refresher course. The chairperson was

Commentator at the launch of the book *Unfree: Migrant Domestic Work in Arab States* by Rhacel Salazar Parreñas' organized by Laws of social reproduction network, Kings College, London in November. In addition to this, the Unit Developed Instruction material for BA Anthropology of the Sreenarayanaguru Open University on 'Gender and Culture Block IV: Gender Justice' and on 'Reproductive Rights; Gender Equality; Legal Protection against Gender Violence.' Ongoing research includes field work, a JPal project 'Child Care and Educated Women's Labour Market Behaviour: Evidence from Kerala', and 'Kadavoor Village Study –Phase 2' to begin in June 2022.

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, Director, CDS is the Chair Professor of the Unit. The activities of the Unit during the reporting year include four completed research papers, two ongoing studies along with several publications. A book titled *India's Economy and Society, Lateral Explorations*, edited by Sunil Mani and Chidambaran G Iyer was brought out by Springer in 2021.

In addition to this, three chapters in books, one working paper and an occasional paper were brought out. Further, 2 international seminars, 26 lectures, webinars, meetings were presented at the national level. Presentation of papers and internal teaching and lectures within the CDS numbered a total of seven. The Chair Professor is member of several committees, advisory bodies at the international, national and state levels.

Research Unit on Local Self Governments (RULSG)

The Government of Kerala had set up a Research Unit on Local Self Governments at the Centre in March 2005. The corpus fund received for RULSG was Rs.3.70 crore which was released in 2005-06 (Rs.1.70 crore) and 2006-07 (Rs.2.00 crore).

The objectives of the Unit are (a) promotion of research; (b) research capacity building; and (c) Promotion of usage (dissemination of research findings) particularly in linking up research with training programmes of institutions such as the Kerala Institute of Local Administration.

This year too was hampered by pandemic restrictions and was devoted to completing work taken up in 2020-21.

The meetings necessary for the policy dialogue initiated in 2020, on the shrinking human-wildlife interface in Kerala, could not be organized due to persisting pandemic restrictions and so we undertook individual interviewing of respondents across the range of social groups including forest-fringe farmers, officials of the Kerala Forest Department, and others. This was completed in November 2021. The policy advocacy note was presented to the stake holders and a wider audience on 22 December 2021.

Two presentations based on the completed short research project in the series on Ecological Challenges and Local Self-Government Responses were presented as webinars in May 2022.

The two short research projects begun in 2020 in the Ecological Challenges and Local Government Responses have been completed

A study titled ‘The Revived People’s Plan and Agricultural Development – A Concurrent Assessment’ was completed and ready for review.

A jointly presented paper on the gendered implications of the idea of resilience in Kerala’s local governance discourse was presented at the annual Kerala and the World Economy Conference at CDS in Feb 2022.

Preparations for the policy dialogue planned for 2022, about Kerala’s coastal villages and decentralized governance, have begun. A short research proposal titled ‘Precarious Work, Women and the Pandemic: Understanding the Sociology of Covid-induced Livelihood Vulnerabilities in Kochi City’ was completed by Apr. 2022.

As a valuable addition to the RULSG’s Panchayati Raj archives, specific tables pertaining to climate change information from the Disaster Management Reports for all of Kerala’s local bodies published by the Kerala State Disaster Management Authority have been translated and are to be uploaded on the K N Raj Library website.

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. Currently the Steering Committee is chaired by Prof. SudiptoMundle. The activities of the programme is coordinated by Prof. Vinoj Abraham, Professor, Ministry of Commerce Chair.

During the year 2021-22 the following activities were undertaken by NRPPD

Work was initiated for the publishing of a compendium on the plantation crops Tea, Coffee, Rubber and Spices. Experts to prepare chapters for the compendium were identified and an online workshop on the chapter outlines was conducted on 30th October 2021. The first complete draft of all papers is being now sent out for external refereeing.



The steering committee decided to create an online database relevant for plantation studies to make plantation data easily and conveniently available in a single platform for research. Work on this will start by July 1st 2022 and be completed by December 31, 2022.

A new webinar series of online lectures was initiated during 2021-22. Four online lectures were conducted during the year between September 2021 and February 2022. The YouTube links of these lectures are available at <https://cde.edu/endowments/nrppd/nrppdwebinars/>

A new series on research abstract for policy making is now published quarterly. The first two are available online now at <https://cde.edu/endowments/nrppd/nrppd-research-brief/>The third in the series is in preparation. It would be published by mid-July 2022.

A study on Performance on Rubber Producer Studies and a study on Performance of Farmer producer organisations in Coffee are both underway.

A paper titled “Value Chain Conundrum in the Indian Tea Economy: A Historical Perspective” was presented in an NRPPD webinar held on June 3rd 2022. A completed study titled “Forecasting India’s Natural Rubber Price: Comparison of different univariate time series modelling” was presented as a webinar on 21 December 2021. In addition to this a draft paper on ‘A review on marketing and pricing strategies in plantations crops’ is also ready.

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

A Research Unit on ‘Kerala and the World Economy’ was set up at the CDS during 2016-17. This was made possible by the onetime endowment grant of Rs 300.00 lakh sanctioned by the Government of Kerala. In the meantime, the Government of Kerala accepted a proposal from CDS for establishing an International Migration Centre at CDS. It was planned to merge this

unit which carries a grant of Rs 2 crore with the 3 crore granted earlier for the Research Unit on Kerala and World Economy. This merger helped start the new endowment unit with a corpus of 5 crore, under the title ‘Research Programme on International Migration from Kerala’ (R-PIMK).

The government of Kerala set up a research programme on international migration from Kerala at the Centre for Development Studies (CDS) in December 2019. The CDS has accumulated considerable international reputation in conducting research studies on international migration and has since conducted several rounds of what is known as Kerala Migration Surveys- the latest being in 2018. Studies conducted by CDS is helpful for evidence-based policy making in the field of international migration. Hitherto the studies have been conducted against specific requests for such studies from funding agencies. But the time has come now to institute a permanent research programme at the Centre so that a regular stream of research studies on different aspects of international migration from Kerala will be forthcoming. Further, a database on migration which is searchable will also have to be created. The unit will this have four kinds of activities every year:

- Conduct of research studies on topics that are required by the government
- Organization of an annual training programme on migration research
- Creation and maintenance of a database on international migration; and
- An annual conference on “Kerala and the World Economy”

During the year a project on ‘Socio-Economic Impact of Migration at the Local Level: A Study of Kaddakkavoor Village – Phase 1,’ was completed. Ongoing studies include a study on the ‘Prospects and Impact of Migration at The Local Level Through a Village Census,’ and ‘Generation on Child Migration: A State Level Study of Tamil Nadu and Kerala’. The Unit conducted a *Research Methodology Workshop on Migration* in August and a *Conference on Kerala and the World Economy* in February this year. A detailed database on international migration from Kerala is under preparation and is likely to be made public on the CDS website during the forthcoming year (2022-23).

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 11th P. K. Gopalakrishnan Memorial Lecture on "Migration and Pandemics" was delivered by Dr. Chinmay Tumbe, IIM-Ahmedabad, on 22 September, 2021.

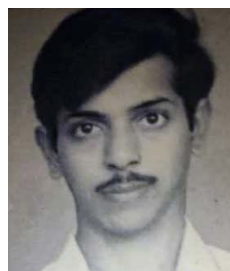
B. G. Kumar Endowment Fund



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 12th B.G. Kumar Lecture on '*The East Asian Miracle*', *30 Years Later*, was delivered by Dr. Jong-II YOU, Dean, KDI School of Public Policy and Management, Sejong- si, Korea, on 21 March, 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. Rahul Ranjan of the MPhil Programme in Economics 2019-21 Batch.



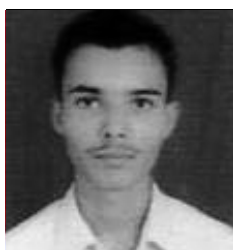
Chandrika Sharma Endowment Fund

Chandrika Sharma did her MPhil in Applied Economics at the Centre during 1993 through 1996.



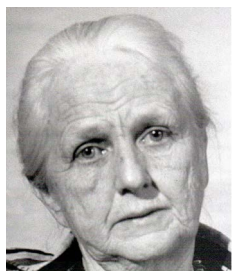
Shewas in the ill-fated Malaysian Airline, Flight MH 370, which disappeared without a trace on March 8, 2014, while on a flight from Kuala Lumpur to Beijing. Her classmates at the Centre, during that time, have got together and set up the Chandrika Sharma Endowment

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. The award will be available from the academic year (2020-21) onwards.



The first award under this endowment was presented to Mr. Bhagat Umesh Rambhau of the MPhil batch of 2019-21, during the Foundation Day Lecture of October 2021.

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.

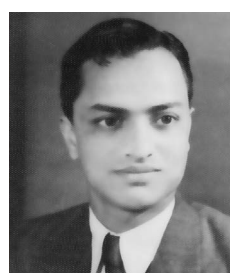
Robinson passed away and in her memory, the Centre had organised seven public lectures. Professor Maria Cristina Marcuzzo of University of Rome, Italy delivered the last public lecture.

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. Albert Abraham (MA 2019-21)

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 Ms. Della Raju and Ms Hanna Stanley of the (2020-22) batch.



6



SUPPORT SERVICES

K. N. RAJ LIBRARY

The year 2021-22 was a continuation of the Covid-19 pandemic related issues. There were state-wide lockdowns, as well as self-quarantine of staff due to Covid-19 infection of self and family members. The library's activities proceeded as usual in spite of all this.

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 448 books and 72 ebooks were added to the collection. The library automation software Libsys4x is used by users and staff for the day-to-day operations and catalogue search. The library catalogue (OPAC) is available online at <http://cdslib.cds.ac.in:8380/opac4x/>. 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 the library collection:

<p>United Nations Industrial Development Organization (Vienna)</p> <p>Industrial Development Report 2022: The future of industrialization in a post-pandemic world. – Vienna: UNIDO, 2021. ISBN : 978-92-1-001150-1</p>	
	<p>Kavitha Iyer.</p> <p>Landscapes of Loss: The Story of an Indian Drought. - Noida: Harper Collins India, 2021. ISBN : 9789390327461</p>
<p>Corien Prins, Dennis Broeders, Henk Griffioen, Anne-Greet Keizer, Esther Keymolen.</p> <p>iGovernment . - Amsterdam: Amsterdam University Press, 2021. ISBN:9789048512980.</p>	



	<p>Utsa Patnaik and Prabhat Patnaik</p> <p>Capital and Imperialism: Theory, History, and the Present. - New York: Monthly Review Press, 2021. ISBN: 9781583678909.</p>
<p>Roger W. Spencer and David A. Macpherson, eds.</p> <p>Lives of the Laureates, Seventh Edition: Thirty-Two Nobel Economists. - Massachusetts: MIT Press, 2020. ISBN: 9780262043779.</p>	
	<p>Ashok Gulati, Kavery Ganguly, Harsh Wardhan, eds.</p> <p>Agricultural Value Chains in India: Ensuring Competitiveness, Inclusiveness, Sustainability, Scalability, and Improved Finance. - Singapore: Springer, 2022. ISBN: 978-981-33-4267-5</p>
<p>The World Bank</p> <p>World Development Report 2022 : Finance for an Equitable Recovery. - Washington, DC: World Bank, 2022. ISBN: 978-1-4648-1731-1.</p>	
	<p>Jan Nederveen Pieterse, Haeran Lim, Habibul Khondker, eds.</p> <p>Covid-19 and Governance: Crisis Reveals. - London: Routledge, 2021. ISBN 9780367722517.</p>
<p>Erik J. Larson</p> <p>The Myth of Artificial Intelligence: Why Computers Can't Think the Way We Do. - Harvard: Harvard University Press, 2021. ISBN: 9780674983519.</p>	
	<p>Jeffrey Sachs, Christian Kroll, Guillame Lafortune, Grayson Fuller, Finn Woelm.</p> <p>Sustainable Development Report 2021. - Cambridge: Cambridge University Press, 2021. ISBN:9781009106559</p>

The K.N.Raj Library subscribes to 85 Print Journals and 12 Newspapers. The library also received 41 print periodicals / journals as gifts. 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 2022. 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.

Due the prevailing Covid-19 pandemic situation, external visitors were not permitted to enter the campus till 28th February 2022. From 2nd March 2022, visitors were allowed to enter the K.N.Raj Library for reference purpose and use the library services in person. The membership during the reporting period is as follows. A total of 36 new members joined / renewed membership, out of which 12 are reference memberships. Four 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. Some of the prestigious statistical databases 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 1266 posts and has received 24633 visits. The following is the URL <http://knrajlibrary.wordpress.com/> of the service.

K.N. Raj 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.

Online Training Programme on EBSCO e-Resources was organised for the CDS faculty and students on 14 December, 2021 from 3.45 p.m. to 4.30 p.m. 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 CISCO WebEx 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.

The participants of the ICSSR Sponsored Capacity Building Programme 2021, held in Centre for Development Studies, Thiruvananthapuram, were given an online lecture about the resources and services of K.N.Raj Library on 27th July, 2021.

The 2021-22 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.

**External events by staff:**

Name	Event	Date
V. Sriram	<i>Webtalk on Copyright and Plagiarism.</i> World Book and Copyright Day celebration organized by Kendriya Vidyalaya Library, AFS Aakkulam, Thiruvananthapuram.	23 rd April 2021.
V. Sriram	<i>Lecture on Information Sources for Social Science Research.</i> 36th Webinar in the Ecowings Webinar series, Department of Economics and Research Centre, Government Women's College, Thiruvananthapuram.	8 th May 2021.
V. Sriram	<i>Webtalk on Copyright and avoiding Plagiarism.</i> Webinar Series for Bhavan's Librarians organized by Bharatiya Vidya Bhavan, New Delhi.	21 st July 2021.
V. Sriram	<i>Lecture on Copyright and Plagiarism issues in Academics.</i> Capacity Building Workshop for Research Scholars, Faculty and Students, Government KNM Arts and Science College, Kanjiramkulam, Thiruvananthapuram.	7 th August 2021.
V. Sriram	<i>Lecture on Information Sources for Research.</i> Inaugural Lecture of PG Research Forum of the NSS College, Ottapalam, Palakkad.	11 th August 2021.
V. Sriram	<i>Webinar on Managing References using Zotero.</i> Kerala State Council for Science Technology and Environment, Thiruvananthapuram.	17 th August 2021.
V. Sriram	<i>Lecture on Intellectual Property Rights – Copyright and plagiarism issues.</i> Statistical Inference and Intellectual Property Rights Webinar Series, Morning Star Home Science College, Angamaly and MGU-STRIDE, Kottayam, India.	4 th September 2021.
V. Sriram	<i>Lecture on Scholarly Communications.</i> Five Days Online Researcher Development Programme (RDP), Mahatma Gandhi University Library, Kottayam.	30 th September 2021
V. Sriram	<i>Lecture on Introduction to Academic Blogging.</i> 61st Webinar in the Ecowings Webinar series, Department of Economics and Research Centre, Government Women's College, Thiruvananthapuram.	23 rd October 2021.
V. Sriram	<i>Web-talk on Introduction to Open Education Resources.</i> Gifted Children Programme, Alappuzha Educational District, Alappuzha.	31 st October 2021.
V. Sriram	<i>Online class on eResources in Social Science Research.</i> Thunchath Ezhuthachan Malayalam University School of Development Studies, Malappuram.	23 rd November 2021.

V. Sriram	<i>Lecture on Information sources for research.</i> International Online Workshop on Academic Writing and Communication Skills, Research Methodology, Reference Management, and Academic Publishing, National Institute of Physical Medicine and Rehabilitation (NIPMR), Thrissur.	11 th December 2021.
V. Sriram	<i>1. Lecture on Information Sources for Research.</i> <i>2. Lecture on Software tools for checking plagiarism.</i> <i>3. Open Access and Scholarly Communications.</i> St. Teresa's College, Ernakulam.	15 th and 16 th December 2021.
V. Sriram	<i>Lecture on Information Literacy and Resources for Research.</i> 12-day State Level Online Workshop, Providence Women's College, Kozhikode.	10 th February 2022.
V. Sriram	<i>Lecture on Information Sources.</i> Two Week Workshop on Research Methodology, Academic Writing and Publishing, Sir Syed College, Thaliparamba, Kannur.	17 th February 2022.
V. Sriram	<i>Lecture on Information sources on the Web.</i> National Online Workshop on Collecting Literature, Manuscript Preparation, and Publishing, SIES College of Arts, Science and Commerce, Nerul, Mumbai.	23 rd March 2022.

COMPUTER CENTRE

The IT wing of the Centre provides technological support to the faculty and students to achieve its object of knowledge creation/dissemination. In this regard, IT section supports teaching/research activities and operations of the Library and Administration. IT infrastructure in CDS Campus



- CDS is having its own data centre with state of the art facilities.
- Nine Juniper 3300 switches with 10 Gigabits uplink ports installed in four buildings of the campus. Switches are distributed in nine locations on the campus.
- Fiber network connection from computer centre to other buildings.
- Fortinet 300 D UTM as 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.
- LibSys Library software for library access.
- Active directory for 300 users.
- File server for storing and sharing data.
- 80 HP desktops and 50 HCL desktops and 10 thin clients for staffs 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 facility.
- Software: Microsoft Windows 10 /Office, Statistical software such as STATA 17, Eviews 9.5, SPSS 22, Gauss software and Grammarly@edu software as writing assistance for grammar checks in the documents.



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 Ph.D Bay

Students bay, computation environment, exclusively meant for MA and Mphil students. This centre contains 5 PCs and two printers. Ph. D Bay is equipped with 2 computer and a printer and this facility is exclusively for Ph.D students. Students Bay and Ph.D 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 the library users.

(d) Wi-Fi Facility

CDS campus is fully WI-Fi enabled. All the buildings in the campus are equipped with Wi-Fi facility. Wi-Fi facility is also available in the guest house and the hostels for students.

(e) Class rooms

All class rooms are equipped with PC, Digital Podium and LED screens.

Current activities

CDS is planning to have digital database of Plantation and Migration data. Tender process of selecting the vendor for developing digital database is under processing.

STAFF WELFARE FUND

The Staff Welfare Fund provides limited grants to last grade employees for marriage of dependent children and financial relief for losses due to natural calamities. The Fund also provides loans to employees for purchase of land for construction of their own house, house construction and renovation, education of children, medical treatment, purchase of household items and vehicles, repayment of old debts etc. During the reporting period, eight applications for loan were approved.

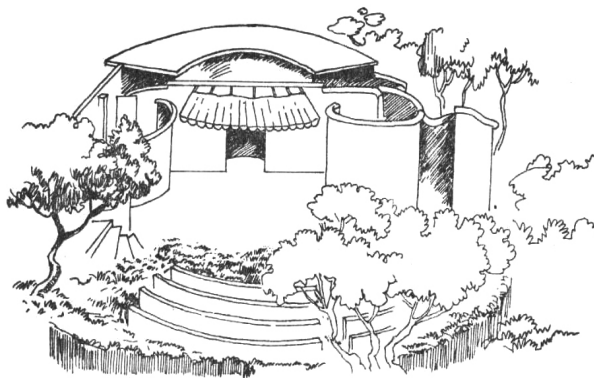
Three children of employees were awarded merit certificates and cash awards for their scholastic performance in public examinations. Two of the non-academic staff members retired during 2021-22, and a grant of Rs.15,000/- each was paid to retired employees as a welfare measure. The Fund is managed by 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.

The Staff Welfare Fund, started in 1999 with an initial corpus from the CDS endowment has investments and loans disbursed to employees amounting to Rs.156.94 lakh as on 31st March, 2022.

STAFF WELFARE FUND MERIT AWARD

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	Course	Class/ Grade
1	Ms. Michelle Abraham, D/o Prof. Vinoj Abraham	10 th (CBSE)	Distinction
2	Ms. Fanana K, D/o Mr. Ameer Ali, Sr. Assistant Librarian	MA Economics	Distinction
3	Mr. Aadithya Suresh, S/o Mr. Suresh S, Sr. finance Officer	10 th (CBSE)	Distinction



NEW INITIATIVES

(A) ACADEMIC



(a) New Chairman



Prof. Sudipto Mundle was elected as the Chairperson of the reconstituted Governing Body of the Centre for a period of three years beginning January 04, 2022.

Prof. Mundle is a Senior Advisor at the National Council of Applied Economic Research, New Delhi, and Visiting Faculty at the Indian School of Public Policy, New Delhi.

Earlier he has been Member of the Fourteenth Finance Commission, Member and Acting Chairman, National Statistical Commission. Member of the Monetary Policy Technical Advisory Committee, Reserve Bank of India. Emeritus Professor, National Institute of Public Finance & Policy.

Prof. Mundle is actively engaged in policy research. His current research interests include fiscal policy and fiscal federalism, macroeconomic policy and modelling, development economics and governance. He continues to publish papers in refereed professional journals. He also writes a regular column for the financial newspaper Mint and occasionally in other newspapers. He is a Life Member of the Indian Econometric Society.

(b) 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 great 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 Jan 2023. Eminent scholars are being 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 till now.

Lecture – 1: The Story of Professor P J Thomas: An Unsung Economist

By: **Dr. E. M. Thomas**, Visiting Professor at Mahatma Gandhi University, Kottayam on **January 14, 2022**



Lecture - 2: Chattambi Swamikal and the Deconstruction of the Sudra

By: **Dr. T. T. Sreekumar**, Director, School of Interdisciplinary Studies, EFLU, Hyderabad on **February 17, 2022.**

Lecture - 3 : Reformism, Piety and Politics: A Study of Muslim Counter Public through the Life and Works of Makthi Thangal

By: **Dr. Sherin B.S.**, Asst. Professor, Dept. of Comparative Literature, The English and Foreign Languages University, Hyderabad on **March 31, 2022.**

(c) Workshop on Database on Indian Economy

A workshop on 'Database on Indian Economy' was held at the CDS over 7th to 18th June, 2021. Twenty four participants joined for the 11 days programme which was coordinated by Prof. Vinoj Abraham.

(d) Research Methodology Workshop on Migration

The 5 day workshop on Research Methodology Workshop on Migration with 30 participants was conducted from 9th to 13th August, 2021. The programme was sponsored by the Research Unit on International Migration and coordinated by Prof Praveena Kodoth.

(e) Conference on Kerala and the World Economy

A Conference on *Kerala and the World Economy* was conducted during February 23 to 25th, 2022. It was open to everyone and the total number of participants who had attended was more than 80. The main highlight of this programme was the discussion on "The Silver Line Project and the Future of Kerala" by Prof. T. M. Thomas Isaac and Prof. K. P. Kannan (Hon. Fellow of CDS). It was attended online by more than 290 participants (both on webex and youtube live)

(f) Discussion on –'The Economic Survey 2021-22 and Union Budget 2022-23' by discussants Prof. R. Nagaraj, Dr. Chidambaran, Dr. M. Parameswaran and Prof. Sunil Mani Prof K.N. Harilal was coordinator of the discussion which was held on 2 March, 2022.

(g) Collaboration with IIST

The Centre is collaborating with the Indian Institute of Space Science and Technology (IIST), Trivandrum to complement each other's teaching and research activities in humanities and social sciences. Under this collaboration the Centre's faculty will take lectures at IIST and also do joint research projects. A research project 'Measuring the size of India's Space Economy' has been completed during the year.

(h) Professor P Mohanan Pillai Memorial Prize

The family of late Professor P Mohanan Pillai has donated a sum of money to create an endowment in his memory. Prof Pillai served the CDS with great distinction as a faculty member for about three decades during 1983- 2011 and thereafter as Honorary Fellow. 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.

(i) CDS buildings at the Museum of Modern Art (MoMA), New York

The photographs of CDS buildings are displayed at the exhibition on *The Project of Independence: Architectures of Decolonization in South Asia, 1947-1987* at the Museum of Modern Art (MoMA), New York. The exhibition is from February 20, 2022, until July 2, 2022.. The photographs of CDS were taken early last year (2021) by the architectural photographer Randhir Singh. The selection of photographs of CDS Buildings is yet another fitting tribute to our architect, Laurie Baker.

(j) 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.

Details for the year 2021-22 are given below:

Visiting Professors/Fellows at the Centre 2021-22

Sl No	Category and Name	Home Institution	Area
Category 1 A: 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. K. 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 - Mumbai	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



(k) 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

The COVID pandemic which adversely affected the regular running of the guest house last year is now finally getting back to normalcy.

The guest house provides a total of 14 rooms comprising of 9 Superior rooms and 5 standard rooms. All rooms are bath attached with basic facilities like TV, Water Heaters, Wifi etc. Solar water heaters are also used. The rooms are spacious and can easily accommodate families as well.

The facility is primarily open to those visiting the CDS for official purposes including attending seminars, visiting the library and for other official purposes. A large number of outside Government and other agencies like Kerala State Planning Board, GIFT Trivandrum, NCESS Trivandrum are also using CDS Guest House as their primary accommodation partner. The Guest House administration is directly managing the Foreign Registration services through FRRO website for foreign registration within 24 hours of arrival.

All the bookings are directly administrated online, through e-mail (guesthouse@cds.ac.in), by Guest House Manager and allotment of rooms is strictly followed as per the rules and regulations. A high standard of cleanliness is maintained with cleaning and sanitization on a daily basis. After the closure due to the pandemic the guest house is now in perfect condition to cater to the needs of guests. Guest House is located next to Canteen area and is easily accessible.

Professor Praveena Kodoth is the Chairperson of the Guest House Management Committee. Supervision of the guest house is managed by Mr Anoop Kumar P.P, Guest house Manager who provides all the expertise and guidance to running of the Guest House. He is supported by Mr. Saibabu. S, Guest House Attendant who takes care of room arrangements, cleaning management and maintenance reporting.



GOVERNANCE AND ORGANISATIONAL STRUCTURE

As on 31 March 2022

COMMITTEES

Committee of Direction

Sudipto Mundle (Chairman) *(January 4, 2022 onwards)*
 K.M. Chandrasekhar (Chairman)
 Teeka Ram Meena IAS
 Virendra Kumar Malhotra
 Ram Singh
 Satish Chandra Garkoti
 J. Devika
 Sunil Mani (Convenor)

Finance Committee

Sudipto Mundle (Chairman) *(January 4, 2022 onwards)*
 K.M. Chandrasekhar (Chairman)
 Venu V
 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. Shri Prakash Mani Tripathi,
 (VC, Indira Gandhi National Tribal University, MP)
 P. Kanagasabapathi
 (Member, ICSSR)
 Aswini Kumar Mohapatra
 (JNU, New Delhi)
 Dipendra Nath Das
 (JNU, New Delhi)
 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

PhD Programme Co-ordinator
 M.Parameswaran
Ph.D Course Work Co-ordinator
 J. Devika
Associate Co-ordinator:
 Ritika Jain
MA. Programme:
 Thiagu Ranganathan
 Chandril Bhattacharyya



Faculty Committee

Sunil Mani (Chairman)
U.S. Mishra (Convenor)
(On Leave from 31 May 2021)
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)
Publications Officer (Member)
Aishwarya Prakash (Students; representative)
Likhitha, Tirunagari (Students' representative)
Niranjana C.P (Students' representative)
Srivatsan, M (Students' representative)
Srimanjori Guha (Students' representative)

Library Committee

Ritika Jain (Chairperson)
V. Sriram (Chief Librarian)
R. Nagaraj (Observer)
Abhilash T
S. Suresh Kumar (Registrar)
Ansamma Joseph
Rajkumar Byahut (Student Representative)
P. J. Nishok (Student Representative)

CDS Chronicle

Vinoj Abraham

Seminar Co-ordinator

Chandril Bhattacharyya

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)
Sourish Dutta (Student Representative)

Internal Quality Assurance Committee

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)*

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 (Finance Officer)
Ansamma Joseph

Hostel Wardens

M. Parameswaran
Tirtha Chatterjee

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)
Reeshma R.S. (Member, Administrative Staff B)
A.R. Ajikumar (Member, Administrative Staff B)
G. Vijayan (Member, Administrative Staff C)

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)

SC/ST Cell

Thiagu Ranganathan (Chairperson)
Abhilash T
Sumesh C. S
Ladenla Lama (Student representative)
Ajil M (Student representative)

Campus Committee

Tirtha Chatterjee (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)
Srimonjori Guha (Students Representative)
Srivatsan M (Students Representative)

Canteen Management Committee

Chidambaran G.Iyer (Chairperson)
Abhilash T (Co-Chairperson)
Suresh Kumar S. (Ex-Officio, Convener)
M.Parameswaran, Warden (Ex-Officio)
Tirtha Chatterjee, Warden (Ex-Officio)
A R Ajikumar
Annesha Mukherjee, Student's Representatives
Subal Danta, Student's Representatives
Shonima Nelliath, Student's Representatives
Bijni Babu S, Student's Representatives

Guest House Management Committee

Praveena Kodoth (Chairperson)
Suresh Kumar S, (Ex-Officio, Convener)
Tirtha Chatterjee
(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

K. J. Joseph

Ph.D in Economics
(CDS/JNU)
(On Leave from 19 July, 2019)

Research Area: Innovation and Development,
India's Plantation Agriculture

Irudaya Rajan S.

Ph.D.in Demography
(IIPS, Bombay)
(Retired on 30 April 2021)

Research Area: Migration and Human Development,
Health and Education

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

K. N. Harilal

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

J. Devika

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.

Associate Professors

Beena, P.L.

Ph.D in Economics,
(CESP, JNU)

Research Area: Industrial Economics,
Indian Corporate Sector ,FDI, M&As and Competition
Policy, Globalisation and Contemporary Issues of
Indian Economy, Kerala Economy

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)

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)

Research Area: Agricultural Economics,
Plantation Crops, Development Economics,
Policy Evaluation

Gogol Mitra Thakur

Ph.D in Economics (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

Honorary Fellows

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

Visiting Professor -Fixed term appointment

R. Nagaraj
(CDS/JNU)

Research Area: Indian Economy

ADMINISTRATION

REGISTRAR'S OFFICE

Suresh Kumar S.	<i>Registrar</i>
Shareef H.S.	<i>Assistant Administrative Officer</i>
Ajikumar A.R	<i>Assistant Grade II (Designated as PS to Registrar)</i>

ACADEMIC PROGRAMME OFFICE

Geetha Devi T. S.	<i>Assistant Administrative Officer (Retired on 31.07.2021)</i>
Lekha K.	<i>Assistant Grade I</i>
Emmanuel T. J.	<i>Assistant Grade I</i>
Raji R.S.	<i>Jr. Administrative Assistant</i>
Arun K.C.	<i>Jr. Administrative Assistant</i>

GUEST HOUSE

Anoop Kumar P. P.	<i>Guest House Manager</i>
Saibabu S.	<i>Attendant</i>

PUBLICATIONS

Tilak Baker	<i>Publication Officer (Retired on 31.08.2021)</i>
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FINANCE

Suresh S.	<i>Senior Finance Officer</i>
Tharun Kumar M. P.	<i>Internal Audit Officer</i>
Arun Hrishikesh	<i>Assistant Accounts Officer</i>
Reeshma R.S.	<i>Jr. Accountant</i>
Biju R.S.	<i>Attendant</i>

DIRECTOR'S OFFICE

Praveen G.	<i>Assistant Grade I (designated as P.S. to Director)</i>
Ajayanandam S	<i>Attendant</i>

ESTATE AND ENGINEERING

Aanandh N. R.	<i>Campus Supervisor</i>
Anoop Kumar P. P.	<i>Assistant Campus Supervisor (Designated as Guest House Manager)</i>
Vijayan G.	<i>Attendant</i>

COMPUTER CENTRE / IT

Sarath V.	<i>Systems Officer</i>
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K.N. RAJ LIBRARY

Sriram V.	<i>Chief Librarian</i>
Ansamma Joseph	<i>Deputy Librarian</i>
Anitha G.P.	<i>Deputy Librarian (Retired on 31.07.2021)</i>
Ameer Ali	<i>Sr. Assistant Librarian</i>
Gopakumar S.	<i>Sr. Assistant Librarian</i>
Sivakumar P	<i>Junior Assistant Librarian</i>
Sumesh C.S.	<i>Attendant</i>

**RECEPTION/ PUBLIC RELATIONS/
DESPATCH**

Satheesh S.S.	<i>Jr. Administrative Assistant</i>
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Internal Complaints Committee Report

Aishwarya Prakash was elected as a student representative on January 25, 2022 to fill a position that arose on account of deregistration of one of the representatives. The election process was led ably by the remaining representative, Rahul Kamal and was conducted online after deliberations among students, many of whom were not on campus owing to continuing disruptions on account of the pandemic. The Convenor and Chairperson acted as returning officers.

The student representatives raised a complaint from a student member against another. The student member was unwilling to file a formal complaint for fear of repercussion and it took persuasion by the representatives to convince her of the need to seek a resolution, even if not through a formal complaint. The complaint was taken up with the Director. The respondent confirmed the allegations that were made against him and expressed regret. As there had been a previous complaint against him at which time he had been given a warning, this time he was removed from a position of responsibility. Much needs to be done to create an environment in which members of the community will be able to interact in an easy and healthy manner and will be able to communicate their experiences of harassment. Much needs to be done to ensure that those who feel harassed are not reduced to silence.

On March 8, Women's Day was celebrated at the auditorium under the banner of the ICC. The student representatives organised the event with enthusiastic participation from the student community. All members of CDS were invited. This was the first (offline) event to be organised at the Centre after nearly two years!

OBITUARY

Prof. P Mohanan Pillai



Renowned economist Professor P Mohanan Pillai passed away in Thiruvananthapuram on Tuesday, June 28, 2021. He served the Centre with great distinction as a faculty member for about three decades during 1983- 2011. Thereafter he was serving as an Honorary Fellow of our Centre. He is very well known to be an extremely kind and generous person and an excellent research student supervisor. He has made an important contribution to the understanding of issues related to technology transfer in Indian industries. He was the member of 9th Pay Revision Commission of Govt. of Kerala.

Mr. E. N. Tankappan



After a long and painful battle with oral cancer, Mr E N Tankappan, who served the Centre for nearly thirty years, passed away on September 25, 2021. Tankappan was the 'cleaner' of the CDS Bus. He was a very dedicated, quiet and private person.

FAREWELL



Shri K M Chandrasekhar has formally demitted his office as Chairman of Governing Body on 4th January 2022. He has been a great source of support and help to our centre throughout the six years. He had used his address and skill to sort out difficulties on several occasions when we faced challenges of various kinds. We were very privileged to have his wise counsel on numerous occasions. We wish him the very best and hope to see him around.



Professor S. Irudaya Rajan, who has served the Centre with great distinction, address and skill, retired on the 30th of April, 2021. Over the last three and a half decades, he has developed research on international migration at the Centre through sheer dint of dedication and hard work. This area has now blossomed into a Research Programme on International Migration from Kerala at the Centre so that other colleagues will pursue the good work which Professor Rajan has initiated. Prof. Rajan's most significant contribution is institutionalising the research programme on international migration so that the baton is carried forward.

During 34 years of services he guided 18 Ph.D Students, 32 M.Phil students and published 25 CDS working papers. During this time he had completed 64 research projects with the total budget of Rs.16.47 crores. The biggest project was Research Unit on International Migration (RUIM) funded by the erstwhile Ministry of Overseas Indian Affairs, Government of India, during 2006-16 in which he acted as a Chair.



Mr. Tilak Baker, Publications Officer retired on 31 August 2021, served us for over three decades. He is very seldom seen around, other than in his own office and never heard as well. His subdued presence was no reflection of the quantum of work that he so efficiently shouldered. He has been responsible for all publications like the Annual Report, Working Papers, the series on Current Issues in India's Economy and Society etc. Further, he assisted the Director's office in routine reporting our research and teaching activities to all our stakeholders.

His sense of dedication and hard work, never complaining but always accommodating demands on his time and resources. Unlike most of us, Tilak also has an inexorable link with our Centre, as does his illustrious father, Mr Laurie Baker, was our architect.



Mrs Geetha Devi T S, retired from the services of CDS on 31st of July, 2021. She had been with the Centre in various capacities right through 1983. **Geetha thus has the distinction of having the longest service among non-academic and academic staff alike.** More than her long years of service is her sheer dedication and her devotion to her duty which has been unflinching at all times. She has been such a conscientious worker giving due respect to everyone alike.

As the person in charge of the all-important Academic Programme Office, she was meticulous in maintaining records and dealing with the paperwork promptly so that no student suffered.



Mrs G P Anitha, Deputy Librarian, left after 31 years of extremely meritorious service to the Centre on 31, May 2021. Being a very quiet and conscientious worker, Anita was rarely vocal. Still, she could only be seen in the high quality work and contribution that she rendered to our research community, not just in CDS but also among the social science community in Kerala and elsewhere.



RESEARCH TITLES

CULTURE AND DEVELOPMENT

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

DECENTRALISATION AND GOVERNANCE

Completed Studies

1. Water Governance in Thiruvananthapuram City, Kerala: Existing Practices and Alternative Paradigms

KN Harilal and Srikumar Chattopadhyay (National Centre for Earth Science Studies)

Status: *Published as book chapter* - Srikumar Chattopadhyay and Harilal K.N. (2021), "Water Governance in Thiruvananthapuram City, Kerala: Existing Practices and Alternative Paradigms" in Baleshwar Thakur, Rajiv R. Thakur, Srikumar Chattopadhyay and Rajesh K. Abhay (Eds.) *Resource Management, Sustainable Development and Governance: Indian and International Perspectives*, Springer.

Ongoing Studies

2. Reorienting People's Planning in Kerala

KN Harilal

Status: Expected date of completion: Completed; awaiting publication as book chapter

New Initiatives

3. Empowering Forest-Fringe Panchayats: A Policy Reflection on Solutions to the Shrinking Human-Wild Animal Interface in Kerala (Policy Advocacy Note)

J. Devika

Status: Policy dialogue webinar conducted on 22 December 2022. (Malayalam version uploaded on CDS website in Jan. 2022, English to follow) <https://cds.>

[edu/wp-content/uploads/RULSG-Policy-Dialogue_Jan2022.pdf](https://cds.)

GENDER AND DEVELOPMENT

Completed Studies

4. The Defence of Aacharaam, Femininity, and Neo-Savarna Power in Kerala

J. Devika

Status: Accepted for publication in the *Indian Journal of Gender Studies*, 2020, and in a volume edited by Tanika Sarkar and Amritha Basu, from Anthem Press, forthcoming in 2021.

5. Women and the Defence of Aacharam 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 and Yasser Arafat, forthcoming in 2021, Routledge India.

6. Gendered Childhoods to Gender-Neutral Childhoods? Reflections on the History of Childhood in Kerala

J. Devika

Status: Presented at a seminar at ICAS organized by Janaki Nair and Mary E John. (To appear in a collection of essays edited by Janaki Nair and Mary E John from Routledge India, forthcoming)

7. The Kiss of Love Protests: A Report on Resistance to Abjection in Kerala

J. Devika

Status: Chapter in Pushpesh Kumar (ed), *Sexuality, Abjection, and Queer Existence in Contemporary India*, New Delhi, Routledge, 2021.

8. Financial Incentives and Fertility Choices: Evidence from India

Ritika Jain and Tirtha Chatterjee

Status: Conditional acceptance from *Indian Economic Journal*.

Ongoing Studies

9. Information and Communication Technology and Female Employment in India

Ritika Jain and Tirtha Chatterjee

Status: Expected date of completion: March 2022

Ongoing Research Projects

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

J. Devika and Anamika Ajay (RULSG, CDS)

Sponsor: Funded by RULSG, CDS.

Status: Initiated February 2022 - Fieldwork ongoing.

11. Flexible Work Arrangements and Gendered Outcomes: Impact of COVID-19 in India

Thiagu Ranganathan and Avina Mendonca (IIM Nagpur)

Sponsor: ICSSR

Status: Expected date of completion: June 2022

New Initiatives/ Research Plan

12. Women-owned Enterprises in Kerala and the Role of the State

Beena PL

Sponsors: ICSSR

Status: Research Plan

13. Covid 19, Livelihoods and Interventions by Local Self Government Institutions in Kerala: An Exploratory Study.

J. Devika and Anamika Ajay (RULSG, CDS)

Sponsors: ICSSR Minor Research Project

Status: Ongoing

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

J. Devika and Anamika Ajay (RULSG, CDS)

15. Child Care and Educated Women's Labour Market Behaviour: Evidence from Kerala

Tirtha Chatterjee, Praveena Kodoth and Thiagu Ranganathan

Sponsor: Gender and Economic Agency (GEA) Initiative RFP Summer 2021, JPAL- \$10,054

HUMAN DEVELOPMENT, HEALTH AND EDUCATION

Completed Studies

16. Exploring Knowledge, Attitude and Practices Towards COVID-19: A Case Study in Odisha, India

Binod Kumar Behera (AIIMS Bhubaneswar), Jitamitra Behera (Research Scholar, Nuapada, Odisha) and Hrushikesh Mallick

Status: Published in *Journal of Contemporary Studies in Epidemiology and Public Health* 2022, 3(1), ep22xxx.

Completed Research Projects

17. Strategic Review of UNDP India

Chidambaran G. Iyer and Sunil Mani

Sponsor: United Nations Development Programme

Status: Project completed and report submitted to UNDP

18. From Nomadism to Precarious Living: Destitution and Exclusion of Malai Pandāram in Kerala

Abhilash T and Prasant Bansode (University of Mumbai)

Sponsor: Research project funded by ICSSR in 2014-15

Status: Accepted for publication in *Social Change*, 29 January 2022.

INDUSTRY AND TRADE

Completed Studies

19. Mergers & Acquisitions and Antitrust Implications: Evidence from the High-Tech Manufacturing Sector

Beena P L and Smruti Ranjan Sahoo (Doctoral Scholar)

Status: Chapter 9 in "Indian Economy during the Neoliberal Era: Finance, Industry and Employment", (ed) Beena, PL, MuraliKallummal and SantoshKumar, Routledge, India, UK, (Forthcoming 2022)

**20. Indian Economy during the Neoliberal Era: Finance, Industry and Employment**

Beena P L Murali Kallummal (IIFT) and Santosh Kumar
Status: Forthcoming Book - Beena P L Murali Kallummal and Santosh Kumar (ed) *Indian Economy during the Neoliberal Era: Finance, Industry and Employment*, Routledge, India, UK, (Forthcoming 2022).

21. 'External Sector' in 'Panel Discussion on Economic Survey 2021-22 and Union Budget 2022-23'

Chidambaran G. Iyer

Status: Chapter in Commentary on India's Economy and Society Series – 22

22. Collusion under Product Differentiation

Rajit Biswas, Neelanjana Sen (Madras School of Economics) and Urvashi Tandon (Madras School of Economics).

Status: Will submit to journal.

23. Gender Diversity, Gender Norms and Firm Performance: Evidence from India

Ritika Jain

Status: Accepted at *Economic Systems*

24. State Ownership and Dividend Decisions: Economic Versus Political Determinants

Ritika Jain

Status: Published in Journal of Quantitative Economics

*Ongoing Studies***25. Impact of Policy on Mobile Manufacturing in India**

Chidambaran G. Iyer

Status: Expected date of completion: December 2022.

26. Phase Manufacturing Policy for Mobile Manufacturing in India: An Empirical and Theoretical Evaluation

Chidambaran G. Iyer

Status: Expected date of completion: Dec 2022

27. Tariffs, Firm Heterogeneity and Metzler Paradox

Rajit Biswas

Status: Ongoing

*Ongoing Research Projects***28. Trade Liberalisation, Resource Re-Allocation and Productivity Growth in Indian Manufacturing Industry**

M. Parameswaran

Sponsor: ICSSR funded

Status: Expected date of completion: December 2022

INNOVATION AND TECHNOLOGY*Completed Studies***29. Mobile Phone Manufacturing in India: A Study of Few Characteristics**

Chidambaran G. Iyer

Status: Published in the *Economic and Political Weekly* on 19 February 2022.

30. The Role of Industrial Policy in Market-Friendly Economies Case of Covid-19 Vaccine R&D and Its Manufacturing in India and the USA
Sunil Mani

Status: Accepted for publication by the *Economic and Political Weekly (EPW)*. Also published as a paper in the *Commentary on India's Economy and Society Series*, <https://cds.edu/wp-content/uploads/21CommentarySeriesProfMani.pdf>

31. Diffusion of Digital Payments in India, 2011-12 to 2020-21, Role of its Sectoral System of Innovation
Sunil Mani and Chidambaran G. Iyer.

Status: Published as Working Paper No: 505, <https://cds.edu/publications-working-papers/>

32. India's Space Economy, 2011-12 through 2020-21, Its Size and Structure

Sunil Mani, V K Dadhwal (National Institute of Advanced Studies) and C S Shaijumon (Indian Institute of Space Science and Technology)

Status: Under review by an international refereed journal

*Ongoing Studies***33. Entrepreneur, Innovation Systems and Institutions in Emerging Markets: Observations from Two Indian Case Studies**

Chidambaran G. Iyer

Status: Expected date of completion: March 2023.

34. Innovation Performance of Two High Technology Industries in India, The Contrast between India's Pharmaceutical and its Computer Software Industries

Sunil Mani

Status: Expected date of completion: December 31, 2022.

35. Diffusion of Automation Technologies across Asian Manufacturing Industry and Its Likely Effect on Manufacturing Employment

Sunil Mani

Status: Expected date of completion: December 31, 2022.

New Initiatives

36. Determinants of Process Innovation in Indian Industry: An Empirical Exploration

Chidambaran G. Iyer

Status: New Initiative

37. Workshop on ICT and Economics

Chidambaran G. Iyer

Status: New Initiative

38. Bivoltine Sericulture in India: An Innovation System Perspective

Chidambaran G. Iyer

Status: New Initiative

LABOUR, EMPLOYMENT AND SOCIAL SECURITY

Completed Studies

39. Does Vocational training lead to self-employment in India?

Pradeep Kumar Choudhury (Zakir Hussain Centre for Educational Studies, School of Social Sciences, JNU, New Delhi) Hrushikesh Mallick & Amit Kumar (Ph.D. Scholar, Zakir Husain Centre for Educational Studies, School of Social Sciences, JNU, New Delhi)

Status: Submitted to a journal for its consideration.

40. Interlocked: Kinship and Intimate Precarity among Plantation Labour in India

Jayaseelan Raj

Status: Revised for the *Journal of Royal Anthropological Institute*.

41. Does Being Educated More than the Spouse Give Women Higher Autonomy? Findings from India

Thiagu Ranganathan and Avina Mendonca (IIM Nagpur)

Status: Under Review in a Journal.

42. New Technology, Economy and Work: Some Conceptual Underpinnings, Labour and Development

Vinoj Abraham

Status; published in *Labour and Development*, Vol. 28, No.2, pp. 124-132, 2021.

Ongoing Studies

43. An Assessment of Gender Inequality in Educational and Occupational Participation among Displaced Adivasi Population in Rourkela, Odisha

John Kujur (Doctoral Scholar), S Premkumar (Doctoral Scholar) and Hrushikesh Mallick

Status: Expected date of completion: June 2022

44. Plantation Crisis: Rupturing of Dalit Life in the Indian Tea Belt

Jayaseelan Raj

Status: Expected date of completion: July 1, 2022.

45. Jobs & Caste in India: Did Reservation in Higher Education bring a Change?

Tirtha Chatterjee and Thiagu Ranganathan

Status: Expected date of completion: May, 2022.

46. Wage Productivity Decoupling in India

Vinoj Abraham and Sasikumar S K (V.V. Giri National Labour Institute)

Status: Ongoing

New Initiatives/ Research Plan

47. Labour and Employment in the Tea Sector

Vinoj Abraham and Anuja V P

Sponsors: NRPPD

Status: New Initiative

48. Labour and Employment in the Coffee Sector

Vinoj Abraham and Anuja V P

Status: New Initiative

*Research Plan***49. Return Migration and Employment: The Possibilities of Worker's Cooperative in Kerala**

Vinoj Abraham

Sponsors: CDS- Kerala in the World Economy

Status: Research Plan.

MACROECONOMIC PERFORMANCE*Completed Studies***50. What Lowered Inflation in India: Monetary Policy or Commodity Prices?**

M. Parameswaran and Pulapre Balakrishnan (Ashoka University)

Status: Submitted for journal publication.

51. Are there any Significant Differences in External and Idiosyncratic Shock Spillovers in International Sovereign Bond Markets? A Journey from Normal to Covid-19 Period for Eight Major Selected Economies

Sanjay Rout (Doctoral Scholar, CDS) and Hrushikesh Mallick

Status: Under revision with Asia-Pacific Financial Markets

52. Does Urbanisation Induce Renewable Energy in Emerging Economies? The Role of Education in Energy Switching Policies

Mantu Kumar Mahalik (IIT Kharagpur), Hemachandra Padhan (Symbiosis School of Economics, Symbiosis International University, Pune), Hrushikesh Mallick and Giray Gozgor (Istanbul Medeniyet University, Faculty of Political Sciences, Department of International Relations Economic Integration Section, Turkey)

Status: Under review with *Energy Economics*.**53. Does Interaction of Economic Globalization with Technological Progress Affect Income Inequality in India? An Empirical Analysis**

Sanjay Rout (Doctoral Scholar CDS) and Hrushikesh Mallick

Status: Published in *Empirical Economics Letters*, 20(10): (October 2021)**54. Does Carbon Dioxide Emission Affect Life Expectancy? Insights from a Sample Of 68 Developing And Emerging Economies**

Le Thai Ha & Mantu Kumar (IIT, Karagpur) & Hrushikesh Mallick

Status: Published in *World Development Sustainability* (2022).**55. The Moderating Effects of Democracy and Technology Adaption on the Relationship between Trade Liberalisation and Carbon Emissions**

Zhou Lu (Hong Kong Polytechnic University), Mantu Kumar Mahalik (IIT Kharagpur), Rui Zhao (Southwest Jiaotong University) & Hrushikesh Mallick

Status: Published in *Technological Forecasting & Social Change**New Initiatives***56. Innovation and Growth with Informal Sector**

Chandril Bhattacharyya and Dibyendu Maiti (DSE)

Status: New Initiatives

57. An Exploration on the Direction of Causality between Spot Market Returns and Implied Volatility in Major Markets of Oil and Stocks during COVID Pandemic

Zeeshan Nezami (Doctoral Scholar, IIT Patna) & Hrushikesh Mallick,

Status: New Initiatives

58. Demonetisation and Public Sector Enterprises

Ritika Jain

Status: New Initiative

*Research Plan***59. Long-term Trends in Revenue Mobilisation by the Indian States in the Context of Indirect Tax Reforms**

Hrushikesh Mallick

Sponsor: ICSSR

Status: Research Plan

MIGRATION*Completed Studies***60. State Policy and Recruitment of Domestic Workers and Nurses to the Middle East: A Comparative Political Economy Analysis**

Praveena Kodoth

Status: Published in *Economic and Political Weekly*, September 4, 2021.

*Completed Research Projects***61. Socio-Economic Impact of Migration at the Local Level: A Study of Kaddakkavoor Village – Phase 1**

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

Sponsor: Research Programme on International Migration from Kerala, CDS

Status: Plan is to produce some research papers on the basis of this. We are now planning to use the data collected for writing journal articles.

*Ongoing Research Projects***62. “Kerala Transforming: Labor and Trade Mobility in times of Pandemic” (Book Project)**

Beena PL and Thiagu Ranganathan

Sponsors: Research Programme on International Migration from Kerala, CDS

Status: Expected date of completion: May 2022 (Book Proposal is cleared by Routledge)

63. The Prospects and Impact of Migration at The Local Level Through a Village Census

Vinoj Abraham, Praveena Kodoth, Parameswaran M and Ritika Jain

Sponsors: Research Programme on International Migration from Kerala, CDS

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

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

Vinoj Abraham and Praveena Kodoth

Sponsors: UNICEF, India

Status: Ongoing

AGRICULTURE AND PLANTATION CROPS*Completed Studies***65. Globalisation of Agriculture and Atomisation of Farming: Small Farms Crisis in Asia**

K.N. Harilal

Status: *Published in Journal ‘Millennial Asia’, Harilal K.N. (2021), “Globalisation of Agriculture and Atomisation of Farming: Small Farms Crisis in Asia”, 12 (3), 298-315, Millennial Asia*

66. Area, Production and Productivity of Natural Rubber in India

Sunil Mani

Status: Will eventually be published as a chapter in Compendium on Plantation Crops

*Ongoing Research Projects***67. Capital and Labour in Tea Industry: A historical perspective**

Thiagu Ranganathan and Tirtha Chatterjee

Sponsors: NRPPD

Status: Expected date of completion: June 2022.

68. Performance of Rubber Producer Societies in Rubber

Vinoj Abraham

Sponsor: NRPPD

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

69. Performance of Farmer Producer Organisations in Coffee

Vinoj Abraham and Mithesh Madhavan (Research Associate, NRPPD)

Sponsor: NRPPD

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

70. Feasibility of e-auction in rubber

Vinoj Abraham

Sponsors: NRPPD

Status: The research was to completed by March 2020, but has to be extended due to the COVID Pandemic.

*New Initiatives***71. Coffee Sector in India: A Study of Few Selected Issues**

Chidambaran G. Iyer

Status: New Initiative

POLITICS AND DEVELOPMENT*Completed Studies***72. Another Wave of Forest and Adivasi Land Alienation? Revenue versus Forest Pattayam and Adivasi Land Question in Kerala**

Abhilash T and K. H Amita Bachan (MES Asmabi College, Kodungallut)



Status: Published in *Artha Vijnana*, Vol. No.LXIV (64), Issue No.1 Page: 75-87 (March, 2022)(<http://www.i-scholar.in/index.php/ArthaVij>)

73. Postcolonial Caste, Ambedkar, and the Politics of Counter-Narrative

Jayaseelan Raj

Status: Revised for: *History and Anthropology*

74. The Politics of State-level COVID-19 responses in India: Evidence from the first wave in 2020

Ritika Jain and Tirtha Chatterjee

Status: Conditional acceptance from *Indian Economic Journal*.

Ongoing Studies

75. Beyond the Romantic Idealism: State intervention and inclusion of Adivasis in Kerala

Abhilash T

Status: Expected date of completion: October, 2022

New Initiatives

76. "Invisible in Day Light", How Marginalized are being made invisible in a Developed Society: A Case Study of Adivasis in Kerala.

Abhilash T

Status: New Initiative

77. Building a Social Front of Resistance in Post-Kerala Model Kerala: The Struggle against Quarrying in the PallichalPanchayat.

J. Devika

Sponsor: RULSG Grant, CDS

Status: Initiated in 2021-22

78. Egalitarian Paradox: Dalits and State in Kerala (book project)

Jayaseelan Raj

Sponsors: New India Foundation

Status: New Initiative

Research Plan

79. Book writing in Malayalam:

കേരളത്തിലെ ആദിവാസി പിന്നോക്കാവസ്ഥയെക്കുറിച്ച്

ഒരന്വേഷണം (An enquiry into the Backwardness of Adivasis in Kerala)

Abhilash T

Status: Research Plan

OTHER STUDIES

Completed Studies

80. Identity Assertions and Print in Malayalam and Tamil-Speaking Regions in the Early Twentieth Century: Some Comments

J. Devika

Status: Appeared in the *South Asia Chronicle* 11/2021

81. Modern Services and Industrialization in Developing Countries: Some Implications of Technology Gap Dynamics

Gogol Mitra Thakur

Status: Submitted to journal

82. Service-led Industrialization in Developing Economies: Some Implications of Technology Gap Dynamics

Gogol Mitra Thakur

Status: Working Paper. This is an extended version of paper mentioned above (B.1)

83. Modern Services led Growth and Development in a Structuralist Dual Economy: Long Run Implications of Skilled Labour Constraint

Gogol Mitra Thakur

Status: Under review. The working paper version is available at

84. Effect of Economic Policy Uncertainty on Stock Market Return and Volatility under Heterogeneous Market Characteristics

Srikanta Kundu and Amartya Paul (Doctoral Scholar, CDS)

Status: Published in *International Review of Economics and Finance*

(url: <https://www.sciencedirect.com/science/article/pii/S1059056022000685>)

85. Asymmetries in the Monetary Policy Reaction Function: Evidence from India

Srikanta Kundu and Irfan Ahmad Shah (Doctoral Scholar, CDS)

Status: Published in *Studies in Nonlinear Dynamics and Econometrics*

(URL:<https://www.degruyter.com/document/doi/10.1515/snde-2019-0121/html?lang=en>)

86. An Empirical Analysis of COVID-19 Response: Comparison of US with the G7

Srikanta Kundu, Mahua Barari and Saibal Mitra (Missouri State University) Status: Published in International Review of Applied Economics (url: <https://www.tandfonline.com/doi/abs/10.1080/02692171.2021.1965100?journalCode=cira20>)

87. COVID-19 and Federalism in India: Capturing the Effects of State and Central Responses on Mobility

Srikanta Kundu, Himangshu Kumar and Manikantha Nataraj (Doctoral Scholars, CDS) Status: Published in the *European Journal of Development Research* (url: <https://link.springer.com/article/10.1057/s41287-021-00463-4>)

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

Srikanta Kundu, Ruma Kundu (Sikkim University) and Kul Bahadur Chettri (Nar Bahadur Bhandari Government College, Tadong) Status: Under review in a journal.

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

Srikanta Kundu, Ruma Kundu (Sikkim University) and Indraneel Mandal (Sikkim University) Status: Under review in a journal.

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

Srikanta Kundu, Manikantha Nataraj (Doctoral Scholar, CDS) and Pratim Das (MA Student) Status: Under review in a journal

91. Risk>Returns Interdependence between REIT and Stocks: A STVAR-BTGARCH-M Model

Srikanta Kundu, Mahamitra Das (Xavier University Bhubaneswar, Odisha), Nityananda Sarkar (ISI) Status: To be submitted to journal

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

Srikanta Kundu and Amartya Paul (Doctoral Scholar, CDS) Status: To be submitted to Journal

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

Srikanta Kundu and Irfan Ahmed Shah (Doctoral Scholar, CDS) Status: To be submitted to Journal

94. External Shocks and Indian Economy

Srikanta Kundu and Irfan Ahmed Shah (Doctoral Scholar, CDS) Status: To be submitted to Journal

95. Marginal Livelihoods and Forest Dependence: A Study in Chamba District, Himachal Pradesh, India

Thiagu Ranganathan and S Krithi (TISS) Status: Under Review in a Journal

96. ICT Adoption & Agricultural Diversification: Evidence from Farm Households in India

Tirtha Chatterjee Status: communicated to journal

97. Adoption of Information & Communication Technology & Dietary Diversity in India

Tirtha Chatterjee Status: communicated to journal

Ongoing Studies

98. Natural Disasters and Economic Dynamics – Evidence from the Kerala Floods

Gogol Mitra Thakur, Robert CM Beyer (Senior Economist, World Bank) and Abhinav Narayanan (Asian Infrastructure Investment Bank) Status: Expected date of completion: 15th May 2022

99. The Road to Safety- Examining the Nexus between Road Infrastructure and Crime in Rural India

Ritika Jain and Shreya Biswas Status: Expected date of completion: March 2022

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

Srikanta Kundu and Sandeep Pandey (Doctoral Scholar) Status: Expected date of completion: December 2022

Completed Research Projects

101. Beyond Aesthetic Education: The Malayali Engagement with Humanities

J. Devika



Sponsor: CIPSH and UNESCO

Status: Accepted as Chapter in the India/South Asia section of the World Humanities Report, anchored by Prof Bishnu N Mohapatra, KREA University.

Ongoing Research Projects

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

Thiagu Ranganathan and S Krithi (TISS, Hyderabad)

Sponsors: ICIMOD

Status: Expected date of completion: March 2023

New Initiatives

103. Identity Assertions and Print in Malayalam and Tamil-Speaking Regions in the Early Twentieth Century: Some Comments

J. Devika

Status: Appeared in the *South Asia Chronicle* 11/2021

104. Implications of Rural Wage Dynamics for Growth and Technical Change in Rural Manufacturing: Evidence from Indian States

Gogol Mitra Thakur and Mahamitra Das

Status: New Initiatives

105. Interstate Trade of Kerala and Its Manufacturing Sector Prospectus

M. Parameswaran, Sunil Mani and K N Harilal

Sponsor: Kerala and World Economy

Status: New Initiative

106. Inflation, Output Growth, Inflation Uncertainty and Output Growth Uncertainty: A Two-Step Approach with Structural Breaks

Srikanta Kundu, Kushal Banik Chowdhury (ISI, Assam) and Gogol Mitra Thakur

Status: Expected date of completion: December 2022

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

Srikanta Kundu and Gogol Mitra Thakur

Status: Expected date of completion: December 2022

108. Public Debt Sustainability and Fiscal Reaction Function

Srikanta Kundu and Sahana Roy Chowdhury (IMI, Kolkata)

Status: Expected date of completion: December 2022

109. Spatial Market Integration through the Lens of Cluster Formation- Evidence from Indian Agriculture

Tirtha Chatterjee and A. Ganesh Kumar (IGIDR)

Status: New initiative

Research Plan

110. Demand-led growth, Education and Wage Inequality

Gogol Mitra Thakur and Pintu Parui (JNU)

Status: Research Plan

111. Inflation, Output Growth, Inflation Uncertainty and Output Growth Uncertainty: A Two-Step Approach with Structural Breaks

Gogol Mitra Thakur, Kushal Banik Chowdhury (ISI) and Srikanta Kundu

Status: Research Plan

112. Debt Sustainability, Fiscal Response and Economic Policy Uncertainty

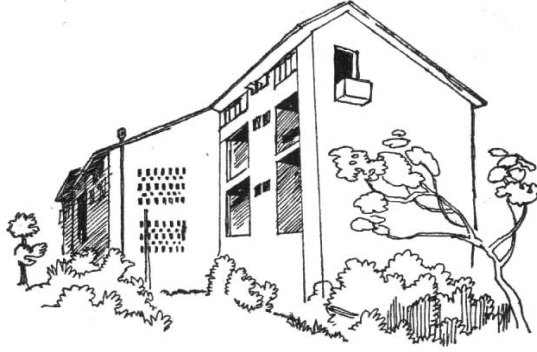
Gogol Mitra Thakur and Srikanta Kundu

Status: Research Plan

113. Economic Policy Uncertainty, Investor's sentiment and Stock Return

Srikanta Kundu, Devika Dilipkumar and Rhythm Sparsh Narayan (JNU)

Status: Research Plan



ANNUAL ACCOUNTS

CENTRE FOR DEVELOPMENT STUDIES
ULLOOR, THIRUVANANTHAPURAM

BALANCE SHEET AS AT 31st MARCH, 2022

LIABILITIES	Sch	As at 31.3.2022 (Rs.)	As at 31.3.2021 (Rs.)	ASSETS	Sch	As at 31.3.2022 (Rs.)	As at 31.3.2021 (Rs.)
General Fund	A	8,51,27,841.00	9,13,48,885.00	Fixed Assets	G	8,42,80,691.00	9,05,01,735.00
Earmarked Funds	B	94,14,11,248.00	90,14,23,600.00	Investments	B	93,37,19,473.00	89,19,19,429.00
Deposits	C	13,70,595.00	14,22,795.00	Earmarked Funds			
Current Liabilities	D	21,26,342.00	46,17,282.00	Loans & Advances	H	64,76,437.00	66,37,562.00
Unspent Grant	E	31,15,377.00	11,63,777.00	Welfare Fund Loan		9,07,398.00	9,82,755.00
Sponsored Projects & Fellowships	F	1,24,32,923.00	62,55,797.00	Prepaid Expenses		12,15,338.00	28,66,609.00
Unspent Grant				TDS			
				Current Assets	I	61,784.00	39,408.00
				Closing Stock	J	1,89,23,205.00	1,32,23,806.00
				Cash & Bank Balance			
				Sponsored Projects & Fellowships	F		60,832.00
				Grant Receivable			
TOTAL		1,04,55,84,326.00	1,00,62,32,136.00	TOTAL		1,04,55,84,326.00	1,00,62,32,136.00

Notes to Accounts as per Schedule K



Amal
Director
Centre for Development Studies



For KRISHNAM RETNA & ASSOCIATES
Chartered Accountants
FR NO - 0079368
(A. Renukumar Nair)
Partner
M.No - 024791



CENTRE FOR DEVELOPMENT STUDIES
ULLLOOR, THIRUVANANTHAPURAM

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2022

EXPENDITURE	SCH NO	31 March 2022	31 March 2021	INCOME	SCH NO	31 March 2022	31 March 2021
Faculty & Staff Cost	1	7,51,23,529.00	7,42,16,575.00	Grant in Aid			
Fellowship	2	11,12,631.00	10,39,384.00	A. From ICSSR		3,12,00,000.00	
Academic Development	3	76,31,045.00	78,19,809.00	Salary (OH -36)		12,50,000.00	
Repairs & Maintenance	4	77,91,051.00	70,58,402.00	Non-Salary (OH-31)Recurring		19,51,600.00	2,85,00,000.00
Administrative Expenses	5	16,78,767.00	18,59,128.00	Non-Salary (OH-31)Project/Research Activities)			
ICSSR Capacity Building Programme		1,13,788.00		B. From Govt. of Kerala		2,17,75,000.00	5,43,02,000.00
Sponsored Research/ Fellowship/ Projects Expense	6	64,87,912.00	12,85,218.00	Plan		3,25,27,000.00	8,17,27,000.00
Surplus & Recovery of Overheads Transferred to Endowment Fund	7	89,89,954.00	97,29,710.00	Non-Plan			
Net Income from Earmarked Funds Transferred to Respective Funds	B	2,80,33,131.00	2,50,69,594.00	Total Grant (A+B)		8,87,03,600.00	56,01,618.00
Depreciation	G	1,20,90,309.00	1,26,88,875.00	Less: Utilised for Capital Expenditure		56,01,618.00	55,29,738.00
				Less: ICSSR Grant (under OH 31 for Project/ Research Activities to be utilised in 22-23)		19,51,600.00	
				ICSSR Capacity Building Programme		8,11,50,382.00	7,61,97,262.00
				Fees Received	8	1,13,788.00	8,52,825.00
				Other Income	9	27,06,031.00	1,48,911.00
				Less : Transferred to Endowment Fund		25,57,120.00	
				Sponsored Research/ Fellowship/ Projects Income Transferred	6	64,87,912.00	12,85,218.00
				Surplus & Recovery of Overheads Transferred from Project Funds	7	89,89,954.00	97,29,710.00
				Interest on Investment of Earmarked Funds	B	5,38,71,703.00	
				Less : Expenditure on Funds		1,51,41,132.00	
				Less : Transfer to I&E - recoupment of deficit	G	1,06,97,440.00	2,50,69,594.00
				Transfer from General Fund (Depreciation)		1,20,90,309.00	1,26,88,875.00
				Transfer from Endowment Fund (Deficit)		1,06,97,440.00	1,47,46,223.00
TOTAL		14,90,52,117.00	14,07,66,695.00	TOTAL		14,90,52,117.00	14,07,66,695.00

Notes to Accounts as per Schedule K

Ranjith
Director
Centre for Development Studies



For KRISHNAN RETNA & ASSOCIATES
Chartered Accountants
FR NO : 0016365
(A. Retnakumar Nair)
Partner
M.No. 02479



-2-



Conference on “Kerala and the World Economy” held during 23rd to 25th February, 2022



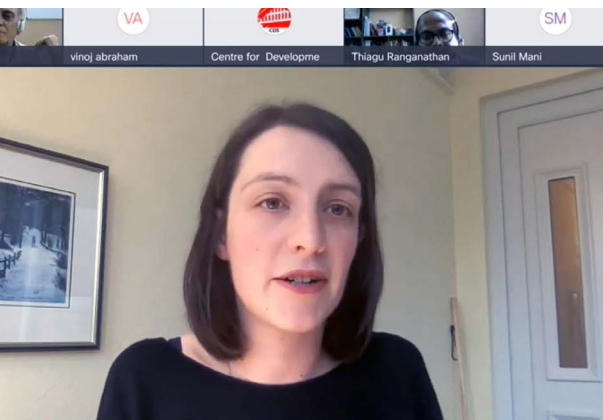
Discussion on “The Silver Line Project and the Future of Kerala” by Prof. K. P. Kannan and Prof. T. M. Thomas Isaac held in connection with the Kerala and the World Economy Conference.



Webinar on “India’s Space Economy, 2011-12 to 2020-21, Its Size and Structure” by Professor Sunil Mani, Dr C. S. Shajjumon, Professor Vinay Kumar, Dr. B N Suresh- 25 March, 2022



Panel Discussion on National Monetisation Pipeline- Is it the best way to finance infrastructure development in India- Mr. Manish Aggarwal, Prof. T T Ram Mohan, Mr. Narayan Ramachandran, Prof. R Nagaraj - 24 Sept. 2021



NRPPD webinar series-From global to local tea markets: the changing political economy of tea production within India by Dr. Natalie Langford on 18 February, 2022



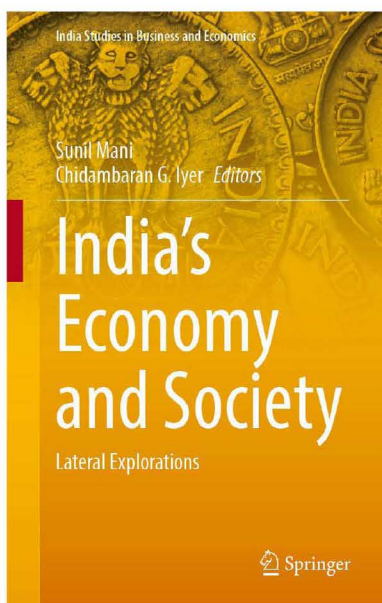
AKAM Lecture Series-2022: Dr. E. M. Thomas, Visiting Professor, Mahatma Gandhi University, Kottayam. 14 January, 2022



Distribution of Staff Welfare Fund Merit Awards



Prof. Sudipto Mundle (right), the new Chairperson of the Centre with the Director Prof. Sunil Mani



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Mani, Sunil, Iyer, Chidambaran G. (Eds.)

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