

# ANNUAL REPORT 2019-20



**CENTRE FOR DEVELOPMENT STUDIES**  
**THIRUVANANTHAPURAM, KERALA**

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

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(As on 31 March, 2020)

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## **Annual Report 2019-20**



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- Government of Kerala
- Planning Board, Government of Kerala
- Indian Council of Social Science Research
- University Grants Commission
- Jawaharlal Nehru University
- University of Kerala
- Reserve Bank of India
- NITI Aayog, Government of India
- Ministry of Overseas Indian Affairs, 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.



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## OVERVIEW

Centre for Development Studies (CDS) was established as an autonomous social science research institute on 19 October 1970. 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.

Over the past fifty 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 past decades, CDS has diversified its research into a large number of areas. Some of the topics that received significant attention in the 1970s and 1980s are no longer in vogue, while new areas of research concern have emerged in the field of development studies. It is also worth mentioning that the Centre received prestigious endowment funds from different government agencies to set up dedicated research units in recent years to



focus on specific areas like local government, migration and plantation development. Needless to mention, CDS has been attracting sponsored project research funding from several national and international organisations for carrying out research on various dimensions of development.

Another major milestone for CDS in the recent years is the launch of its MA programme in Applied Economics in 2012. 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 has been implemented. This is granted for a cycle of five years. This year several faculty members availed of this facility.

A reservation policy for faculty recruitments at CDS has also been implemented. For SC and STs reservation will be provided at all the three cadres of teaching positions, namely Assistant Professor, Associate Professor and Professor. Reservation for candidates belonging to OBCs will be at the entry level only.

### Academic Programmes

The three 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, MPhil and PhD degrees are awarded by Jawaharlal Nehru University (JNU). From 2014-15 onwards, CDS has introduced an integrated MPhil/PhD programme whereby on completion of MPhil with a stipulated result, students would be automatically entitled to get admitted

for the PhD Programme. 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. This year 5 students were selected for the programme and they have secured internships at prominent universities like Warwick International Higher Education Academy (WIHEA), UK; LSE, U.K.; National University of Ireland, Maynooth, Ireland; University of Lisbon and University of Sussex, U. K.

The admission tests for MA and Integrated MPhil/PhD programmes are now conducted at 7 centres across the country. In 2019, the cities in which the centre organised the entrance examination were in Bardhaman, Guwahati, Hyderabad, Kozhikode, New Delhi, Pune and Thiruvananthapuram.

In the year 2019-20 three PhD Degrees were awarded and 3 PhD theses were under evaluation. In the same year, all 11 MPhil students submitted their thesis and 9 were awarded 2 under evaluation. In 2018, 254 students applied for the Integrated MPhil/PhD programme, 210 appeared for the written examination, 12 were admitted and all of them joined. For the PhD programme, 10 students from 2016-18 MPhil batch were offered admission under the Integrated MPhil/PhD programme.

In the year 2019-20, 6 scholars were admitted for M.Phil Programme and 17 students for the MA programme. The total number of students pursuing their doctoral research during the year was 41. Four scholars were awarded Ph.D degree.

The MA programme is now into the eighth batch. For the academic session 2019-20, 800 candidates applied for admission of which 685 appeared for the entrance test and 17 students were finally admitted to 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 2 applications were received, one from Bhutan and one from Nepal. However, only one student from Bhutan joined the



programme. The SAARC Scholarship is made possible by the generous funding of the State government which enables our M A 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 153 publications in the year 2019-20.

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; Plantation Crops; Politics and Development and Others. The studies are listed individually with abstracts in Chapter II.

## Research Projects/sponsored Studies

During the year the faculty remained actively engaged in conducting sponsored research projects. A study on 'Relative contributions of adult daughter and sons to elderly parents' care in India,' sponsored by the IDG, Canada and a study on 'Resource Allocation in lieu of State's Demographic Achievements in India: An Evidence Based Approach,' which was sponsored by the 15<sup>th</sup> Finance Commission, Govt. of India were two studies completed under the theme *Human Development, Health and Education*.

Two projects, 'IPR Regime and Antitrust Implications of Mergers & Acquisitions: Evidence from the Indian Corporate sector,' sponsored by the SEED Grant from CDS and another study on 'Structure, Direction and Export contribution of Kerala State: with special reference to Cochin Special Economic Zone,' sponsored under the research unit, Kerala

and the World Economy, Government of Kerala, were two studies completed under *Industry and Trade*.

A study under the theme, *Innovation and Technology* titled 'Performance of India's National System of Innovation, 2015-2020,' undertakes a detailed survey of India's innovation system in terms of investments in R&D and in intangibles was sponsored by UNESCO, Paris.

A research project sponsored under the Research Unit, Kerala and the World Economy, Government of Kerala, on 'Migration, Remittances and Dutch Disease: Evidence from Kerala Economy', was completed under the theme *Macroeconomic Performance*.

Two studies were carried out under *Migration* this year, one was on the 'Recruitment and Migration of Indian Domestic Workers to the Middle East, Work in Freedom programme,' sponsored by ILO, New Delhi, and the other on 'Locating Migration in Imagined Futures,' by the sponsor: REALM.

Studies that have been grouped in the *Other Studies* theme include a study on 'An Assessment on Non- Tax Revenue in Kerala,' sponsored by the Administrative Reform Committee, Government of Kerala and a study on 'Institutional Support For Management Of Agro-Biodiversity in Kerala: Access Capacity Gaps Pertaining to Agro Biodiversity and Identify Opportunities to Mitigate Impacts of Current Practices of Agriculture and Allied Sectors on Agro Biodiversity Conservation, Management and Use,' sponsored by UNFAO which undertakes a detailed review of policies and institutions to maintain and promote agro biodiversity in the state. Finally, a study sponsored by Energy Management Centre, Trivandrum, titled 'Sector Wise Electrical Energy Intensity in Kerala Factoring in Energy Efficiency and Productivity,' has also been completed.

Ongoing research projects include a study sponsored by the Indira Gandhi Institute for Development Research & Ford Foundation on 'Industrialization for Jobs and Growth: A Case Study of Cellular Mobile Phone Manufacturers in India,' under the research theme *Industry and Trade*. Three studies started in 2017-18 titled 'Diffusion of Industrial Robots and



Manufacturing Employment, an International Comparative Analysis.’ ‘The Diffusion of a Cashless Economy in India, its trends and challenges,’ and ‘Emerging technology, State and National Innovation Capability: An international comparative analysis based on Artificial Intelligence (AI) and Robotics and autonomous systems,’ are on-going studies undertaken under the theme, *Innovation and Technology*.

Several projects on *Migration* are ongoing during the year. A study sponsored by the UAE Exchange Centre LLC on ‘Should We Provide incentives for Investment Use of Remittances? A Randomized Controlled Experiment for India,’ and a study on ‘Flood and Migration in Kerala,’ funded by REALM, followed by a project titled ‘The Prospects and Impact of Migration at the Local Level through a Village Census,’ sponsored under the Kerala in the World Economy Programme, CDS in addition to a UNICEF sponsored study ‘Evidence Generation on Child Migration: A State Level Study of Tamil Nadu and Kerala,’ along with a new study sponsored by UNICEF on ‘Study on Evidence Generation on Child Migration in TN and Kerala, are all underway.

A number of projects under the theme *Plantation Crops* are underway during the year. Studies on ‘Collective Action among Small Tea Growers (STG),’ ‘Performance of Rubber Producer Societies in Rubber,’ ‘An assessment of the Impact of Self Help Groups on Small Tea growers,’ ‘Performance of Farmer Producer Organisations in Coffee,’ ‘Feasibility of e-auction in Rubber,’ are all studies that have been sponsored by the National Research Programme on Plantation Development (NRPPD) unit of the CDS.

## Outreach

As part of its effort to disseminate our research activities, the Centre conducts a number of conferences, seminars, and workshops. Open seminars are given by faculty and researchers from other institutions from within the country as well as abroad. This year 12 open seminars were conducted. In addition to this, 16 seminars were given by the faculty and students. CDS also organised several international/national seminars, conferences and workshops and academic discussions with distinguished speakers from India and abroad

including 4 Short-term training Programmes. Four annual Public lectures were also organised.

The Tenth BG Kumar Memorial Lecture on “Swachh Bharat? Swachh World? Garbage and Pollution on a Growing Planet,” was delivered by Prof Robin Jeffrey (Visiting Research Professor at the Institute of South Asian Studies, Singapore) on 4 September, 2019 at the Baker Auditorium, CDS.

Ninth P.K. Gopalakrishnan Memorial Lecture on “India’s Banking Crisis in Perspective,” was delivered by Professor T.T. Ram Mohan (Professor, Finance & Accounting IIM, Ahmedabad) at the Baker Auditorium CDS on 20 September, 2019.

The Eighth Foundation Day Lecture on “India: from Promise to Hubris” was delivered by Prof Ashoka Mody (Charles and Marie Robertson Visiting Professor in International Economic Policy at the Woodrow Wilson School, Princeton University) at the Baker Auditorium CDS on 1 November, 2019.

Professor Gita Sen (Director & Distinguished Professor, Ramalingaswami Centre on Equity & Social Determinants of Health (RCESDH), Public Health Foundation of India, Bangalore) delivered a lecture on ‘Reflections on the Contribution of Professor Raj’ to commemorate the memory of KN Raj on 17 February, 2020.

CDS has continued with its tradition of conducting short term training programmes.

The CDS conducted its ‘Teaching Innovations Programme for College Teachers in Economics (TIPE)’ during the end of the last year (March-April 2019) as well as in the month of February, 2020.

A Short-term Training on ‘State and Civil Society in Development and Environmental Governance in India’ (Norwegian Training Programme) was held for students from the Department of International Development at Norwegian University of Life Sciences (NULS) at CDS during September, 2019 to undergo a course on development and civil society.

The Centre organised a five-day long capacity building programme for doctoral candidates of SC/ST and other



marginalised groups in October, 2019. This programme, funded by ICSSR, intends to enhance the research capability of young scholars who otherwise had limited exposure to holistic training in data collection and academic writing.

The CDS organised 36 conferences and seminars including 1 international conference, 8 Lecture series and 4 Public Lectures. CDS faculty and students have been invited to speak at conferences/ seminars/ workshops/ roundtables etc. both in India (103) and abroad (18). Many of CDS faculty colleagues have served as members of committees, task forces and advisory bodies at the national and international levels.

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 March-April, 2019 and February, 2020.

The Centre also provided research affiliations to researchers from the UK, New Zealand, USA and the Netherlands for a period of study at the Centre.

The new 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 CDS has already signed Memorandum of Agreement with UNU MERIT, Maastricht, The Netherlands, IDE and GRIPS, Tokyo and Norwegian University of Life Sciences.

During the year, training programmes for college teachers in Economics, a capacity building programme for doctoral candidates of SC/ST and other marginalised groups and a training programme for students from Norway on 'State and Civil Society in Development and Environmental Governance in India' in addition to certificate courses offered by the CDS was carried out during the year.

Under the MHRD a National Institutional Ranking Framework has been introduced. CDS has been ranked as one of top ranking research and teaching institutes.

### Infrastructure Development

Even though this year did not see any major civil works carried out at the Centre, routine maintenance work related to day-to-day activities was very much in place. Providing additional street lighting in and around the quarters and hostel areas has made movement safer during the night. Paved pathways to the canteen from the Men's hostel and from the main steps leading up to the gym have also been made.

Locating underground water lines in the campus which were laid decades back often proved difficult to carry out maintenance work to pipes. To ease this difficulty, new interconnection of water lines to the whole campus has been carried out.

In times of power failure, generator back up has now been extended to the canteen, guest house and hostels. With a view to maintain a clean and hygienic environment, electric incinerators were installed in all the ladies toilets in the Raj and Gulati Blocks.

### 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.561.43 lakh and the Indian Council of Social Science Research Rs. 325.32 lakh. The Centre earned a total income of Rs.96.44 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.386.47 lakh and Rs.190.11 lakh, respectively. The Centre's policy has been to manage its activities and operations at the minimum cost possible without compromising on essential needs and the quality of its output. The Investment Committee aimed to achieve best possible growth of the Centre's funds by investment in high-

yielding and risk-free investments. The Annual Accounts are presented in Chapter X.

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

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

This chapter provides a brief description of the studies that were done and are in progress during the year 2019-20. 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. A total of 116 studies are presented in this chapter

### **(a) CULTURE AND DEVELOPMENT**

#### ***Completed Studies***

#### **1. Crisis and Retirement: Alienation in Kerala's Tea Belt**

Jayaseelan Raj

The recent crisis in the tea industry has devastated the livelihood of the Dalit workforce in the South Indian state of Kerala. Retired workers were worst affected, since the plantation companies—under the guise of the crisis—deferred their service pay-out. This article seeks to understand the severe alienation of the retirees as they struggle to regain lost respect, kinship network, and everyday sociality in the plantations and beyond. I argue that the alienation produced through their dispossession as wage labourers and the discrimination as Tamil-speaking Dalit must be understood as an interrelated process, whereas the source of alienation cannot be reduced to production or categorical relations alone.

Based on one-year ethnographic fieldwork conducted in the Valley estate of the Peermade tea belt in 2011, this article documents the retirees' lived experience of being denied gratuity. I argue that the retirees' loosening of control over their life situation in the crisis context can be best understood as a phenomenon of total alienation where they lose control not only over daily subsistence but also over kinship networks, everyday sociality, and their own sense





of self as they consider themselves worthless without gratuity. By alienation, I refer to a thorough lack of control that people may come to have over their socioeconomic situation and by extension even over the very barest circumstances of existence itself. For the retirees, alienation becomes the primary mode of experiencing life in the context of deferred gratuity. Terms such as exploitation and marginality only impart a weaker sense when it comes to understanding the lived experience of the workers. Alienation encompasses the processes of exploitation and dispossession but also engages with the subjective experience of the exploited and dispossessed.

The retirees express a particular understanding of the crisis-ridden plantation from the position of those who have experienced plantation work over the long term, having seen the establishment of the plantation economy through various stages and built expectations accordingly. Many of the retirees I encountered had more than 40 years of plantation work, and the crisis had particular poignancy for them. The misfortune is that the workers who retired over the last decade also heavily suffered in what were the early years of postcolonial state formation when labour laws were rudimentary and infra-structural facilities were highly limited for workers.

Status: Published in *Focaal: Journal of Global and Historical Anthropology* 86 (2020); 84-96.

## **(b) DECENTRALISATION AND GOVERNANCE**

### ***Completed Studies***

### **2. Regulation and its Effect on Cost Efficiency in Electricity Distribution: A Use of Stochastic Cost Frontier Analysis for the Indian States**

Hrushilesh Mallick and Amit Nandan (Doctoral Scholar)

In light of India's macroeconomic crisis in early 1990's, the central government authority of India had been persuading the state governments for the adoption of market-oriented reforms for the loss-making state public sector undertakings

in general and power sector utilities in particular with an aim to limit the overall size of the public sector in the economy to certain optimal size. This led the state governments to go for unbundling of their vertically integrated electricity boards, established independent regulators to regulate the power sector, and allowed the active participation of the private sector. Given this backdrop, the study attempts to evaluate the effects of the adoption of these reforms, whether those have resulted in improvement in efficiency in areas of electricity distribution. Using the Cobb Douglas stochastic cost functional specification, it finds that the establishment of an independent regulator i.e. SERCs in each state to regulate the power sector has made a significant difference to the reduction in cost inefficiency and thereby helped to achieve the cost efficiency in electricity distribution across the Indian states.

Status: A revision is submitted to a journal for publication

### ***Ongoing Studies***

### **3. Local Governments and Cronyism in Kerala: A Case Study of Pallichal Gram Panchayat**

J. Devika, S. Mohanakumar (Institute of Development Studies, Jaipur) and Archana Ravi (Freelance Journalist)

In the recent past, cronyism has assumed a crucial position in the governance of LSGIs in the state of Kerala, by virtue of its vast area under Western Ghats hills range. Formation of cronyism, involvement and engagement of different actors, its facilitators and the role of capital needs to be probed from the perspective of 73<sup>rd</sup> and 74<sup>th</sup> constitutional amendment. The present study is intended to fill the gap. Given the setting, the study sets the following objectives:

1. To map out areas where cronyism operate in LSGIs and its mode of operation at different levels of decision making;
2. To study forms and mode of functioning of cronyism and its impact on governance of LSGIs, its different





statutory committees, bureaucracy and political leaderships at various levels;

3. To understand the characteristics of capital parked in natural resource sector.
4. To study the impact of cronyism on the federal relationship between different tier of governments and on mobilisation and resistance of people at local level;
5. To suggest policy measures to regulate and control cronyism in LSGIs and to strengthen local governance and plug the outflow of resources of LSGIs.

The locale of the study is the Pallichal Gram Panchayats in Thiruvananthapuram district in Kerala and the selection of the sample GP is purposive as it represents a case of cronyism and the governance in the Gram Panchayat is marred by numerous struggles against granite mining and related activities.

Status: Ongoing (deadline for presentation at CDS is Nov 2020. To be considered for inclusion in the CDS-RULSG Monograph Series on Ecological Challenges and Local Self-Government Responses in Kerala).

#### **4. Local Governments and the Politics of Post-Disaster Planning: The Case of the Puthenvelikkara Panchayat**

J. Devika, Anamika Ajay (National Institute of Advanced Studies, Indian Institute of Science Campus, Bengaluru), Arathy M.R. (Freelance Journalist)

Scholars evaluating the consequences of decentralisation reforms in Kerala over the years have noted how there is now an increasing separation between political decision making on issues impacting the local as 'high politics' and local governance (Williams, 2004; Devika and Thampi, 2006). That is, the power and autonomy of the LSGIs are limited to the procedures and the everyday aspects of welfare delivery resulting in what can be termed a depoliticization of the LSGIs to some extent. As a result, many decisions related to the use of land and other natural resources that come within the jurisdiction of LSGIs are often taken by the

state and central governments. Moreover, it is also important to acknowledge that the proliferation of illegal quarrying and mining in many villages in Kerala cannot occur without the knowledge and co-operation from different tiers of government. Some of the catastrophic outcomes of the unholy partnerships between the bureaucracy, capital, political leadership and the different tiers of governance including the LSGIs were made visible during the deluge in Kerala in 2018 and the numerous forms of local protests against natural resource exploitation in the state.

It is therefore important to investigate the nature of interactions between these actors namely the bureaucracy, political leadership, LSGIs, local elites, state and central governments on issues pertaining to environmental protection and natural resource management. This is especially important to understand the causes of flooding in the region under study as well as to gain deeper insights into the conflicts between the local people on one side and the governance machineries on the other. This work focuses on the panchayat of Puthenvelikkara in Ernakulam district, which took the brunt of the deluge of 2018 and the flash floods of 2019. It seeks to gain deeper insight into the post-disaster response and the longer-term planning undertaken by the LSG as well as the role played by other elements of local government, especially the Kudumbasree. The research questions are:

1. To capture the inequalities in the ways in which disasters and recovery are experienced by the affected communities.
2. To understand the development needs and aspirations of the local people affected by the disaster.
3. To document the policies, measures, actions, protocols that were introduced as a part of the entire process of disaster management- disaster preparedness, early warning, immediate relief, rehabilitation and long-term disaster recovery processes undertaken by different tiers of government and their interactions with the formal disaster



management organisations like the District Disaster Management Authority.

4. To understand whose voices among the disaster-affected communities get heard, framed and communicated while designing the short-term and long-term responses to disasters. And to analyse how the experience of floods has influenced the local development plan as well as the local disaster management Plan of the Gram Panchayats in 2019-20 and 2020-21.
5. To understand the impact of disaster management (rescue, relief and rehabilitation activities) on local politics and the nature of interactions between the LSGIs and the higher tiers of governments in the post-disaster context.
6. To understand the interactions between civil society organisations and the LSGI in the context of disaster recovery.
7. To understand the impact of the disaster and disaster recovery processes on inter-community relations.

Status: Ongoing (Approval has been secured in March 2019; fieldwork yet to start. To be considered for inclusion in the CDS-RULSG Monograph Series on Ecological Challenges and Local Self-Government Responses in Kerala).

## (c) GENDER AND DEVELOPMENT

### **Completed Studies**

#### **5. The Defence of Aacharaam, 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.

#### **6. 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 a chapter in book edited by Nissim Mannathukaren and Yasser Arafat, forthcoming in 2021, Routledge India.



## 7. 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 19<sup>th</sup> century to present-day Malayali society and the wealth of social science research on contemporary Kerala which focuses on children and youth.

Status: To be presented at a seminar at ICAS organized by Janaki Nair and Mary E John.

### New Initiatives

## 8. Education, and Income Homogamy, and Women's Autonomy in India

Thiagu Ranganathan and Avina Mendonca (Assistant Professor, Indian Institute of Management Nagpur, IIM Nagpur)

This project will work on two aspects: analysing the trends in age, education, and income heterogamy in India and its relationship with women's autonomy. We will write two papers in this project. The abstract of the two papers are provided below:

*Relative Educational Status and Women's Autonomy: Evidence from India*

This paper analyses the relation between women's educational status relative to their spouse and their

autonomy in India. Using the large-scale nationally representative Indian Human Development Survey (IHDS) conducted in 2011-12, we find that around 20% of the women in the marriages have education more than their spouses. In particular, among all those who married five years before the survey, 31% of women in rural India and 37% of women in urban India were educated more than their spouses. Women with more education than their spouses are younger, with fewer children, married at an older age, had known their husbands before marriage longer, and earn a higher share of the household incomes as compared to those with equal or lesser education than the spouses. We find that relative spousal education, defined as the difference between woman's education and her spouse's education is positively related to decision making autonomy and physical mobility, but it is negatively associated with emotional autonomy. It does not have any relation with economic and social autonomy. The study also performs a disaggregated analysis of the same for rural and urban samples, cohorts based on years of marriage, and education levels of the women. The findings remain similar across various levels of disaggregation.

*Education, Age, and Income Homogamy in India over time*

Research pertaining to marriage patterns in India mainly focuses on the changes that have taken place in terms of delayed marriage or increasing age at marriage, the locus of the marriage decision (arranged vs love marriages) and marriage markets. The present paper examines the changes in education homogamy over time using a large representative household survey data in the country. It estimates the changes in the assortative mating across different education groups over time. The paper also explores if these changes have been different for inter-caste marriages and in cases where the marriage has happened between relatives. The paper finally explores the assortative mating across marriages of partners with differential economic status.

Status: New Initiative (Expected date of completion: April 2020).



## (d) HUMAN DEVELOPMENT, HEALTH AND EDUCATION

### *Completed Studies*

#### **9. Whether Levels of Education Matter for Environmental Quality in Selected BRICS Countries? The Role of Renewable and Non-Renewable Energy Demand with Some New Policy Perspective**

Hrushikesh Mallick, Mantu Kumar Mahalik (IIT, Kharagpur) & Hemachandra Padhan (IIT, Madras, Chennai)

Using the panel data for the selected BRICS (Brazil, India, China and South Africa) economies, the study empirically attempts to evaluate the role of primary (low) and secondary (high) education levels on carbon emissions (e.g. environmental quality) of 1990-2015 along with controlling the changes in the pattern of energy consumption (e.g. renewable and non-renewable energy consumption together constituting total energy consumption), real GDP, urbanization and economic globalization as additional determinants in a per capita CO<sub>2</sub> emission function.

Status: Submitted to a journal.

#### **10. Household Assets and Wealth Quintiles, India 2006-16: Insights on Economic Inequalities**

Udaya Shankar Mishra and William Joe (Institute of Economic Growth, Delhi)

The potential of National Family Health Survey wealth index to contribute to the discourse on poverty and inequality in India is presented. Between 2005–06 and 2015–16, there have been improvements in ownership and access to fairly basic household assets and amenities, yet, much needs to be accomplished in the provisioning of *pucca* houses, clean cooking fuel, improved toilet facilities as well as access to the digital world through computers and the internet. Inter-household inequalities in asset ownership have declined, but there are large intergroup inequalities with particularly disadvantaged asset ownership profiles for Scheduled Caste,

Scheduled Tribe and Muslim households. Interstate inequalities in asset ownership, however, have increased. The increased concentration of asset poor is found in Bihar, whereas Punjab and Haryana experience increased share of richest households. Overall, based on robustness checks, the NFHS wealth index is an important proxy of socio-economic status and offers considerable scope for timely and systematic analysis of economic inequalities.

Status: Economic and Political Weekly, Vol.55 (6), 8 Feb 2020.

#### **11. Determinants of Inequality in Caesarean Delivery in India: A Decomposition Analysis**

Udaya Shankar Mishra, Basant K Panda (IIPS, Mumbai) and Itishree Nayak (IIPS, Mumbai)

In India, Caesarean Section (CS) rate had got doubled in the last decade, with widespread diversity across the population subgroup. Hence, this study examined the pattern, inequality and driving correlates of CS in India. The attributes that shape the inequality in CS were private health facility, followed by the richest economic status, southern region, and highest education level. A substantial rise in CS in private sectors and richer section raises the apprehension as to whether commercial motive of private providers contributes to the undue rise in CS that need not necessarily be genuine.

Status: Health care for Women International 2020, Jan 13;1-16. doi: 10.1080/07399332.2020.1711757.

#### **12. Literacy Achievement in India: Across the States and Over the Age Cohort**

Udaya Shankar Mishra and Vachaspati Shukla (Sardar Patel Institute of Economic and Social Research, Ahmedabad)

In India, Caesarean Section (CS) rate had got doubled in the last decade, with widespread diversity across the population subgroup. Hence, this study examined the pattern, inequality and driving correlates of CS in India. The attributes that shape the inequality in CS were private health facility, followed by the richest economic status, southern



region, and highest education level. A substantial rise in CS in private sectors and richer section raises the apprehension as to whether commercial motive of private providers contributes to the undue rise in CS that need not necessarily be genuine.

Status: Economic and Political Weekly, Vol.54(48), 7 Dec 2019 <https://www.epw.in/journal/2019/48/special-articles/literacy-achievement-india.html>

### **13. Rising Extent of Caesarean Delivery and its Differential Access in Regions of India 2005–2016**

Udaya Shankar Mishra, Basant K Panda (IIPS, Mumbai) and Sanjay Mohanty (IIPS, Mumbai)

Rising trends of caesarean section (CS) deliveries has been a public health concern in India. This rising trend would suggest greater access to delivery care for all women across the socio-economic spectrum and this emergency obstetric procedure being accessible to those in need more than to those who can afford it. This article examines the extent of variations in accessing this procedure across regions and population subgroups in India. We used the two waves of the National Family Health Surveys (NFHSs) conducted in India during 2005–2016 to understand the changing pattern and inequality in access to CS delivery in regions of India. Descriptive statistics were used to understand the level of CS rates whereas absolute difference methods, ratio methods and the concentration index were used to understand the equity in access to this procedure. The study observes high and declining regional inequality in access to CS in India. Though the CS rate has increased, the rich-poor gap in access to CS remained large over time. Uneducated mothers from poor households and living in rural areas has still very low access to CS, below their need in many regions of India. This offers evidence concerning the overuse of this procedure among the privileged socio-economic group and underuse among the deprived, suggesting unequal access to this procedure. The study provides evidence of unequal access to CS utilisation among

the poorest households and uneducated mothers. Regulatory protocols are needed to bridge this divide in access to this procedure which can be part of safe maternity

Status: Journal of Public Health: From Theory to Practice.

### **Ongoing Studies**

### **14. Senior Citizens of India: Emerging Challenges and Concerns (Book)**

S. Irudaya Rajan and U.S. Mishra

The dimensions of ageing research and the challenges that senior citizens in India face are sketched as the rationale behind both the present study and the significance of this book in the contemporary world, particularly in the midst of the vast knowledge of geriatric research. Specifically, the awareness of the plight of senior citizens and the major data sources available in the country regarding this segment of the population are the two aspects that are explored in this chapter. The research gaps in the present knowledge pool and the ways to fill some of these loopholes using the information available are also discussed to some extent. Finally, a brief description of the contents of all chapters in the book is enclosed to convey a comprehensive idea of the entire work.

This book is organized into seven chapters. In the opening chapter, the researchers have explained the rationale behind the work, given a brief overview of this book and mentioned the multifarious data available in the field of ageing research. In Chapter 2, the authors examine the demographics of ageing in India using the Census of India and other sample surveys. The composition of the aged population, old age dependency, median age, literacy rate, marital status, economic condition, and living arrangements are discussed from a historical perspective. The prediction for these indicators for 2021 and possible challenges in future are other significant features of this chapter. The transition in the demographics of ageing in India is unique and occurs as a consequence of the changes in fertility and mortality. Predictions regarding the future demographic structure and





the composition of the ageing population serve to prepare more viable strategies for the welfare of senior citizens. As in the case of many developed countries, the process of growing aged population may be viewed in different phases. However, the pace of the ageing process in accordance with the stages of demographic transition is not the same across the nation. Nevertheless, the available evidence shows that the magnitude of the aged population has been increasing very fast and will continue to hike at an exponential rate in future. The demographic shift that contributed to the ageing process, the structural changes in the ageing population, gender dimensions, the measures of the ageing process and the possible demographic consequences are the major aspects discussed in this chapter.

In Chapter 3, the economic dependence and disability of old people are discussed in terms of gender and regional characteristics. The chapter argues that the states with relatively higher economic dependency and disability have more burden than those without these constraints. Rajasthan and Orissa are more disadvantaged states with double burden of both physical disability and financial disability. The socially and demographically more advanced South Indian states also have relatively higher levels of elderly with complete economic dependence in the household as in the case of Rajasthan and Orissa, even though the former show lower disability rate in old age. Various support mechanisms and coping strategies of the elderly are discussed in detail.

Chapter 4 deals with the health condition of older persons in India measured in terms of the morbidity condition. The health care and intervention programs for the elderly are explored along with the recommendation for a paradigm shift in the health policy. The current health policy places little emphasis on the well-being of old people. A proposal to implement a long-term and short-term policy designed from a life course perspective is suggested at the end. The burden of diseases is perhaps a situation that cannot be completely avoided in old age but it can be controlled and managed with suitable amenities and care. Proper planning

and action are required at various levels to reduce the ill-effects of disorders on senior citizens and for them to gain a sense of well-being. In this chapter, the demographic and spatial dimensions of morbidity conditions of older persons in India are examined using the NSSO 71<sup>st</sup> Round data. The authors study the prevalence of morbidity and chronic ailments among the elderly in India in relation to sex, place of residence, education, employment, religion, caste, and region. There exists a significant difference between males and females in the morbidity patterns. The rural and urban differentials in morbidity would also be a reflection of the availability and accessibility of health care infrastructure in the country.

Chapter 5 gives a description of the welfare schemes and programs for older persons in India. It also gives a historical background of the programs. This chapter critically examines the National policy for senior citizens, 2011 in the context of the welfare programmes and schemes implemented for the well-being of senior citizens in India. The researchers argue that all senior citizens must be covered by social protection schemes irrespective of their socioeconomic conditions. The health insurance policy must be unconditionally extended to them without limiting the services to hospitalisation alone. The initiatives must consider day-to-day discomforts and ailments, which really form the major chunk of health care expenditure. Moreover, the government should take steps to reduce the prices of essential drugs for senior citizens.

The unexplored areas of ageing research are elucidated in Chapter 6. It gives some insights from the two longitudinal ageing surveys conducted by the Centre for Development Studies in Thiruvananthapuram, Kerala. Chapter 7 outlines the policies and recommendations for the welfare of the elderly. It gives information on emerging areas in ageing research. A few unexplored avenues are also listed for those who are keen on further research in this field. The authors have explained the rationale behind the work.

Status: Ongoing (Expected date of completion: May 2020).



### 15. Unmet Need: Whose Need and What is Unmet?

Udaya Shankar Mishra and Basant K Panda (IIPS, Mumbai)

Unmet need is widely used as a programme indicator for family planning and to gauge the levels of ill-timed/ unwanted fertility among the countries based on the survey data. However, this measure is surrounded in controversies for its mismatch with implied outcomes on one hand and its insensitiveness to the changing force of natural fertility. Hence this measure has received criticisms and disagreements from many quarters as regard its calculation methods, inconsistency and predictive ability. This is primarily motivated on the premise that unmet need overlooks women's individual assessment of fecundity and remains limited in terms of being a statistical construct based on the current contraceptive use and fertility intention. So refinement of unmet need in keeping with the actual need of women is of growing concern among the researchers and policy makers. This paper is an attempt to assess the unmet need among Indian women based on the potential fertility and experienced fecundability. The study observes a huge gap in reported unmet need and the revision accounting for fertility potential and fecundity status. This exercise facilitates obtaining a realistic extent of unmet need which is far lower than the stated levels that exposes the limitation of the conventional notion of unmet need.

Status: Ongoing (Expected date of completion: March 2020).

### 16. On Verifying the Genuineness of Rising C-section Deliveries in India

Udaya Shankar Mishra and Basant K Panda (IIPS, Mumbai)

Given the abnormal rising trend in C-section deliveries during the last one decade in India, one wonders as to whether there is an explicit commercial tendency under play in rationalising the frequent use of this life-saving intervention in the hide of safe maternity. With this background the study is an attempt to verify the geniuses of caesarean delivery in Indian states we used the data from recently published National Family Health Survey-4 data set to understand the

genuineness of the caesarean delivery in India. Descriptive statistics, univariate odd, and multivariate regression analysis was used for the analyses. The caesarean section (CS) rate in India has doubled within a decade period with its own share of regional variation ranging between 5 to 57 percent as well as across population subgroup. The study observes around one-tenth of the total birth and two-fifth of the total caesarean birth were unnecessary, with a widespread variation across the states of India. These unnecessary caesareans were frequent in private health centres which lead to the inference of economic motivations. Despite the fact that C-sections carry potential complications for both mother and baby and have been proven to be riskier than uncomplicated 'normal' births, many women, families and obstetricians in India are adopting this intervention in a rather less worrisome and easy going manner. This study highlights the need to address the rising share of unnecessary caesarean with the necessary regulations and protocols in place

Status: Ongoing (Expected date of completion: March 2020)

### 17. Unnatural Deaths in India

Udaya Shankar Mishra and Basant K. Panda (IIPS, Mumbai)

Rising adult mortality is an essential feature of the mortality transition. Vulnerability to disease and infection decreases with age, and adult mortality is more likely to be from unnatural causes such as suicide, homicide and road traffic accidents. This study aimed to assess the patterns of unnatural deaths in India as a whole and for various population subgroups. Data were obtained from the fourth wave of the National Family Health Survey (NFHS-4) conducted in 2015–16 in 29 states and 7 union territories of India. The survey collected information on deaths in households occurring in the 3 years before the survey. Rate of unnatural mortality and years of life lost were calculated separately for males and females as well as for urban and rural populations. Unnatural mortality in India was found to make up 10.3% of total deaths, and was greater among the population aged 10 to 45 years. The unnatural mortality rate in India was 0.67 per 1000 population: 0.84 per 1000 among the male population and 0.49 per 1000 among



the female population. A strict positive association was found between the unnatural mortality rate and a state's development level. In addition, a substantial loss of person-years of life due to unnatural mortality was observed. The results serve as a reminder of the need to adopt measures to reduce this avoidable loss of life in India. Prevention strategies should be targeted at the most vulnerable populations to limit young-age fatality, with its resulting loss of productive years of life.

Status: Ongoing (Expected date of completion: April 2020)

### **18. Gauging the Improvement in Economic Status of Indian Households: Evidence based on NFHS**

Udaya Shankar Mishra, Basant K. Panda (IIPS, Mumbai) and Rinju

Improvement in economic status of people has always been a common contention within the contemporary discourse of inclusive growth and development. This is a simple and modest attempt at gauging the changing economic status of Indian households based on a comprehensive wealth score computed in two rounds of NFHS surveys. Such a change is comprehended based on median indexed values of quintile markers that convey the upward/downward change in wealth scores. Such assessment has also been made across residence, caste and religious identities to infer on the differential pattern of such change. Based on this exercise, the rural disparities have widened against a narrowing down of gap in urban areas and besides the Muslims, all other religious groups seem to be narrowing differences between the rich and the poor.

Status: Ongoing (Expected date of completion: June 2020)

#### **Completed Research Projects**

### **19. Relative Contributions of Adult Daughter and Sons to Elderly Parents' Care in India**

S. Irudaya Rajan and Sharada Srinivasan (University of Guelph, Canada)

Sponsor: IDG, Canada

This project was completed in December 2019. Purpose of the study is to understand how sons and daughters care for their parents' well-being. The study focused simultaneously in two states of India, Kerala and Haryana which offer contrasting socio-cultural contexts especially with regard to women's status, son preference and daughter deficit. In the absence of universal pension and social welfare, old age support is one of the main factors driving strong son preference, daughter aversion and the resulting daughter elimination in India. Total sample size in Kerala was 600 elderly. Survey conducted in rural areas of three districts in Kerala. The sample district was selected on the basis of highest proportion of elderly to the total population as per 2011 census. There were certain criteria for selecting these 600 elderly for the survey in which two categories: daughter-only families and son only/ mixed families. Each category should be under equal number of male and female elderly. Also, it should cover all castes, religions. Finally, only those elderly to be selected who have: only one adult daughter or only adult daughters; only one adult son or only adult sons; one adult daughter and more than one adult sons; one adult son and more than one adult daughter. The survey has been completed and data was ready for the analysis in September 2019. Total sample collected was 604 from Alappuzha, Kottayam and Pathanamthitta districts. Theoretically, this research brings together gender—as a way of understanding the value attached to children—and intergenerational contracts which are central to the reproduction of families and communities.

Status: Planning for Journal Articles.

### **20. Resource Allocation in lieu of State's Demographic Achievements in India: An Evidence Based Approach**

S. Irudaya Rajan and Udaya S. Mishra

Sponsor: 15<sup>th</sup> Finance Commission, Govt. of India

This project is to put forward a strategy to allocate resources based on the states demographic achievements particularly on progress made towards realising replacement level of fertility. Both, the dividend and dependent states have





different needs and challenges owing to differential experience of demographic transition. The recent contention and debates regarding the use of population share in federal transfer not based on the 1971 census but the most recent 2011 census has raised fears and anxieties regarding States being successful in population control to lose against those who have failed.

The socio-economic and demographic issues of each state are distinct in nature, and they need due consideration within the calculus of resource allocation for the States. The state which has more elderly or receives more internal migrants perhaps needs more resources, while another state with more child dependents too, needs similar consideration in the allocation of resources. In other words, the characteristics and composition of population is vital beyond its count and proportion in the judgement of resource allocation. Till now, the share of population served as the yardstick for resource allocation that renders States with success in controlling its population to lose and those lagging in this effort to gain. This anomaly has led to a rethinking on consideration of characteristics and composition of population to guide the principles of allocation beyond population share alone. Such revised principles of allocation essentially involve accommodation of emerging needs in the calculus of allocation along with the population share so as to be fair in terms of rewarding States with success in population control and at the same time giving due consideration to States lagging behind. In this context, this is a modest attempt in that direction with alternatives to be chosen by the planners and policymakers for resource allocation to the States in India.

The objectives of the paper are as follows: a) to examine the inter-state variation in trends in population growth during the period 1971-2011 and beyond; b) to decompose the population growth in terms of the natural increase (births minus deaths) and migration; c) to reckon with quality dimensions namely education, distance of migration and social group identity in categorising the losing and gaining status of States in terms of migration; d) to differentiate the States into dividend States and dependent States based

on the population composition and e) to design appropriate weights for devolution of resources in recognition of the demographic diversity among Indian States. The data for the purpose has been obtained from the Census of India's National Sample Survey and Registrar General of India's population projections.

The study made an attempt to understand the changing pattern of population growth during 1971-2011 and decompose the growth in terms of natural increase (births minus deaths) and migration. It was observed that the pattern of population growth agrees more with the changing growth owing to migration rather than that due to natural increase at the state level. Reading the raw population share of 1971 and 2011, it is apparent that States with success in controlling population growth have marginally lost in their share and the others have consequentially gained. It is examined the dependency ratio of States to understand the gaining and losing States. This exercise has revealed that as of the 2011 figures, losing States are 9 out of 29 and gaining States is 20. If the calculation is extended to 2021, half of the States in India will attain losing status.

Nonetheless, use of raw population share as a yardstick in the transfer of resources from the centre to state was neither just in the past nor today. In addressing this basic problem, primary concern relates to accounting for differential composition of the population and the state's responsibility to cater to the need of the incoming migrants. On this count, an exercise has been carried out towards getting population shares adjusted with compositional attributes like share of child and elderly population, dependency ratio and median age. The exercise carried out to obtain an adjusted population share in accommodation of child and elderly population, total dependency ratio and median age in 1971 and 2011 censuses, indicate that population size is not sufficient to depict the true nature of population challenge. Even though the state of Uttar Pradesh has showed larger share of the population in both 2011 and 1971, while adjusting the various population dimensions, there seems to be a reasonable convergence of the revised share across States. This leads to a fair consideration of evolving needs



for provisioning rather than the mere count of population. Since the indicators used to compute weights considered all the relevant dimensions of the population, the proposed final weights are more appropriate for resource allocation to States. Population Share based on mere count ignores equivalence, and therefore accommodation of characteristics assumes significance.

Status: Report, CDS Working Paper

### ***New Initiatives***

## **21. Assessing Development of Indian States over time**

M. Parameswaran, Manmohan Agarwal, and Amit Shovan Ray (JNU)

The study attempts to assess the development of states in India around two time points 2001 and 2011. The study adopts the concept of development as enunciated in the Stiglitz, Sen and Fitoussi (2009). This concept of development, which essentially captures quality of life, is multidimensional and consists of eight dimensions, namely (1) Material prosperity, (2) Health, (3) Education, (4) Political voice, (5) Social connection, (6) Environmental conditions, (7) Personal security, and (8) Economic security. The study uses a number of indicators to capture the extent of achievement by states in each of these dimensions. The study ranks the states on the basis of their achievement in each of these dimensions using Kemeny's median ranking method. Kemeny's median ranking has the property of zero substitutability among indicators. Given the diverse set of dimensions and the underlying indicators, non-substitutability property ensures that greater achievement in one dimension or indicator in no way compensate for lesser achievements in other dimensions. States are ranked on the basis of their achievement in each dimension. States are also ranked on the basis of their aggregate performance as well as on their performance in three sub-domains. The three sub-domains are (1) Human development consisting of the dimensions material prosperity, health and education, (2) Security consisting of Environmental conditions, Personal security,

and Economic security, and (3) Voice and Confidence consisting of Political voice and Social connections. The study analyses the change in rankings of states overtime and explores the sources of this change.

Status: New Initiative

## **(e) INDUSTRY AND TRADE**

### ***Completed Studies***

## **22. Structure, Direction and Export Contribution of Kerala State: With Special Reference to Cochin Special Economic Zone**

P.L. Beena, Pradeesh Kumar S (Researcher) and George Paily (Doctoral Scholar)

The pattern of economic development is associated with structural changes in exports and expansion of export diversification worldwide. Although there are some studies analysing the trade performance at the state level (Pradhan & Das, 2012; Pal, 2013; the British High Commission, 2015; Veeramani & Rajakumar, 2016; NRPPD, CDS; Joseph 2009; 2010), no attempt has been made to understand the structure and direction of manufacturing exports through Kerala State during liberalization era. Given this context, this paper intends to analyse the pattern of trade through Kerala by using the trade data at the port level and the state level. Such exercise will not only have strong implications for improving Kerala's participation in international trade but it may also throw some light on the nature of industrialisation of the state. Special effort has also been made in this study to analyse the structure, direction and contribution of exports that took place through Cochin Special Economic Zone with a comparative perspective. Further, an attempt has been made here to review the strength and weakness of trade facilitation institution with a case study on CSEZ. The paper is divided into six sections including introduction. The growth pattern of exports through Kerala state as well as port-wise exports is analysed in the second section. The third section deals



with the technological composition of Kerala's exports and the level of intra-industry trade pattern of the leading ten products. The direction of trade through Cochin sea ports and SEZs is analysed in the fourth section. A detailed analysis on the contribution of CSEZ in terms of value addition, employment and trade facilitation is carried out in the fifth section. The last section sums up the major findings of the study and highlights the scope for further research while suggesting some policy implications.

Status: Submitted to journal.

### **23. World Development Report 2020: Trading for Development in the Age of Global Value Chains**

Chidambaran G. Iyer, Byahut R. (Doctoral Scholar), Dutta S. (Doctoral Scholar), Nataraj M. (Doctoral Scholar)

The World Bank has recently published its 'World Development Report 2020: Trading for Development in the Age of Global Value Chains' (WDR). The report prescribes that global value chains (GVC) still offer developing countries a clear path to progress and that developing countries can achieve better outcomes by pursuing market-oriented reforms specific to their stage of development. The report mentions that participation in GVCs can deliver a double dividend. First, firms are more likely to specialize in the tasks in which they are most productive. Second, firms are able to gain from connections with foreign firms, which pass on the best managerial and technological practices. As a result, countries enjoy faster income growth and falling poverty (WDR, 2020). Given the current context of the Indian economy – slowing of growth, increasing labour force, and need for generating for more employment – implementing the recommendations of the WDR probably seems like the need of the hour. However, as it often happens in public policy, there is no one size that fits all. This commentary attempt to critically evaluate four issues from the WDR to distil out lessons for the Indian context.

Status: Published in *Commentary on India's Economy and Society Series – 11*, CDS

### **24. Efficiency of Indirect Taxes**

Rajit Biswas and Neelanjan Sen (Madras School of Economics)

Anderson et al. (2001) shows that ad valorem taxes are more efficient than unit taxes in case of Cournot competition with homogeneous products. The present analysis, incorporates two important features of modern industries, namely fixed costs of production and external economies of scale. It is shown that if there are fixed costs of production and government has sufficiently high target tax revenue, then the government may allow the market to monopolize and the efficiency ranking of the taxes may get reversed. Unit taxes can also dominate ad valorem taxes when there are external economies of scale.

Status: Under revision in International Journal of Industrial Organization.

### **25. How Effective has been Government Measures to Control Prices of Anti-Cancer Medicines in India**

Sudip Chaudhuri

Cancer is one of the leading causes of illness and death in India and the government rightly acknowledges and stresses the importance of making cancer medicines more affordable. In February 2019, Government has imposed a ceiling of 30% trade margins on selected anti-cancer medicines to make these more affordable. The retail price is the sum total of what the manufacturers charge and the trade margins. While putting a cap on the latter, the government has kept the former untouched. But manufacturers' prices have been under price control under the Drug Price Control Order, 2013. This paper analyses how effective has been the government measures to control the prices of anti-cancer medicines. The paper finds that despite the attempts to fix ceiling prices and to impose trade margin caps on some anti-cancer medicines, the prices have remained high and unaffordable and prices of the same product sold by different manufacturers vary widely. The lower priced products are not necessarily purchased more and even when the prices



of some products have fallen substantially, the overall consumer gain has not been significant. This is attributed to some basic inadequacies and weaknesses of the way prices have been attempted to be controlled in India. The formulations market in India is essentially a branded generics market and suffers from market imperfections. The government has not made any attempt to tackle the imperfections. The paper also discusses the prices of patented products and biologic products which have become more important in recent years. No attempt has been made to control the prices of patented medicines. Other methods of making patented medicines more affordable, for example, compulsory licensing has also practically remained unexplored. One of the reasons for the high prices of some of the biologic products is that the regulatory requirements have made it more difficult and costlier to enter the market. The paper stresses the importance of simplification of the regulatory barriers to facilitate entry of firms and make the market more competitive and prices more affordable.

Status: CDS Working Paper No 490, December, 2019

## **26. Are Medicine Prices High and Unaffordable after TRIPS? Evidence from Pharmaceutical Industry in India**

Sudip Chaudhuri

The TRIPS agreement has been one of the most contentious agreements of WTO. The pharmaceutical industry has been central to this debate, especially the case of India, which did not recognise product patents in pharmaceuticals before TRIPS and evolved as a major pharmaceuticals manufacturer and exporter. During the AIDS pandemic when patented products were exorbitantly priced, supply of these drugs from India dramatically made medicines affordable and accessible. After the re-introduction of product patent protection in pharmaceuticals in India in line with the TRIPS agreement, considerable speculation and controversy have surrounded the potential impact. Rather than speculation, this paper examines a comprehensive database covering all the products in the market. We contest the claims that there would be, and there has been little negative impact of TRIPs.

Our study shows that while the proportion of high-priced products in the overall market is low, it is not so in all the therapeutic groups. In cancer, in particular, firms have started charging very high and unaffordable prices unheard of in the pre-TRIPS period. Cancer is not yet a pandemic like AIDS but it is now recognised as one of the greatest public health challenges globally. Our study highlights the gravity of the situation with several cancer medicines much more expensive than the HIV/AIDS medicines which led to an international outcry in the early 2000s. Another important finding is that prices are high not only because of legal patent barriers to entry of generics but also because of manufacturing and regulatory barriers, especially in biologic products. This has important implications for policy intervention to make medicines more affordable for universal healthcare. What is important is not only utilizing flexibilities which TRIPS permit such as compulsory licensing and price control, but also simplifying regulatory barriers as in the case of biologics.

Status: CDS *Commentary on India's Economy and Society Series No 10*, December, 2019.

### **Ongoing Studies**

## **27. Is there any Complementarity between Aid, Trade and FDI from India? A Case Study of South Asia Region**

Beena P.L. and Meena Abraham Chacko (Researcher)

Regional economic integration has been adopted as a strategy for balanced regional development in different regions over the world especially after 1990s. Every region in the world and almost every country in the world are pursuing some kind of integration arrangement with its own economic, geopolitical and strategic interest in mind. Economic convergences do take place depending upon the extent of cooperation and supplementary measures adopted to assist lagging regions. The S Asian region has been rather slow in responding to the global trend of regionalism and in exploiting the potential of regional economic integration. There are studies on regional integration in S Asian region



(Das 2009, Chand, 2011, World Bank, 2018) which highlights the progress and shortfalls in the endeavour. The latest study (World Bank, 2018) points to the need for policy measures to improve the trade barriers such as tariffs, para-tariffs and non-tariff barriers to strengthen regional integration. Given this context, the role of India in enabling economic cooperation and economic integration in the S Asian region is examined since the 2000s. This has been done by analysing the role of aid and investments made by India in countries in the South Asian Association for Regional Cooperation (SAARC) region. The study examines whether aid and investment from India have been complementary to the trade development and economic integration of this region. The study argue that India's efforts to improve trade and investment activities by strengthening bilateral cooperation, trade financing, lines of credit and aid projects are tending to greater economic integration but there is still room for corrections in terms of removing of barriers and so on.

Status: Ongoing (Plan to publish in a journal)

## **28. Growth Dynamics of Handloom Sector in Kerala: A Case Study of Chendamangalam Handloom Industry**

Beena P.L. and P. Kavitha (Doctoral Scholar)

Chendamangalam is a village of Paravur Taluk in the Ernakulam district of Kerala which is located about 30 km away from Kochi and it is known for their Geographical Indication (GI) certified handloom products. The cluster consists of five societies with more than 600 weavers. The floods in Kerala 2018 have destroyed most of their looms, yarns and raw material and the industry is now trying very hard to resurrect itself. The purpose of this project is to understand the current functioning of the units run by handloom industry located in this cluster which was badly hit by the flood by comparing with the Kerala handloom sector. This is extremely important as these units were providing livelihood to many households. The specific research questions of the study are the following: What are the socio economic back ground of the owners and workers of the units chosen for study at Chendamangalam Handloom

Society? What is the alternative source of income of the stakeholders of these units? How are these units placed as compared to their counterparts in the handloom industry in Kerala in terms of size of output, capital and labor? How is this industry mobilizing capital, labour and raw material to run the units and what are the constraints to market access? What is the future of this industry and check whether this industry can be rejuvenated through any modern innovative strategies?

Status: Ongoing (Plan to publish in a journal)

## **29. The Combined Impact of Trade Wars and 'Make in India' on the Indian Economy**

Chidambaran G. Iyer, Badri Narayanan G (School of Environment and Forestry Sciences, University of Washington, Seattle, US), Rahul Sen (Auckland University of Technology, Auckland), Sangeeta Khorana (Bournemouth University, Bournemouth, UK), Sadhana Srivastava (Auckland University of Technology, Auckland)

It is a well known fact that India's rapid growth in recent decades has taken place in spite of an almost stagnant contribution of an average of 16% in manufacturing sector to its GDP over 2000-2018. In order to address this constraint and develop India as the next global manufacturing hub, focussing on investment, ease of doing business, innovation and skill development, 'Make in India' a flagship program for industrialization, has been launched by the Government of India since 2014. This has two broad types of features The first is business-friendly to reduce transaction costs and improve doing business in India, through a range of policies that aims to foster innovation, skill and infrastructure development, improving institutional quality and governance and job creation. The second involves protectionism against import competition for domestic manufacturing firms. The combined effect of these two features on the expected success of this programme has been ambiguous, partly because these are not very clearly laid out in one document but instead they have been captured by a slew of policy measures and announcements over a





period of the past four years. Some of them have been proactive while others have been reactive to global policies. The US-China trade war is casting a shadow over the world economy and warning signs of a looming downturn have flashed on financial markets. The reactive policies have been mainly shaped in the last couple of years, in response to the global trade wars being triggered by the US tariff hikes in several commodities, some of them as recent as June 2019. Therefore, we may observe a link between the global trade wars and Make in India, though both of them have their own effects separately on Indian economy.

Since Make in India initiative was conceptualized in an environment where in a global trade war situation was non-existent, it is imperative to analyse whether the overall and sectoral impact of Make in India may have been dented due to the ongoing global trade war, which has hitherto not been addressed in the empirical studies. This assumes significance due to the fact that Make in India program's positive measures may have a favourable effect on the industries and people at large, while its protectionist measures may have an ambiguous effect. In the above backdrop, our study explores the effects of Make in India and the global trade war in a combined way utilizing an applied general equilibrium analysis based on 2017 data. This is a unique attempt on two counts; first, we put together the details relevant for global trade wars and Make in India, which in itself is a fresh attempt; second, this is the first time to capture all these contemporary policies in an economy wide global modelling framework. Our results suggests that the combined impact of both policies, while being beneficial for the Indian economy as a whole, yields negative ramifications for exports, jobs and investment growth. Specific sectors are also unable to increase domestic output even in spite of Make in India, such as Chemical, Rubber and Plastics industries, and those that use it as raw materials.

Status: Ongoing (Expected date of completion: August 2020)

### 30. Wide Gap Narrow Gap and Public Good Allocation

Rajit Biswas

In a model of innovation and imitation as in Grossman and Helpman (1991) we compare the volume of public good that would exist in a wide gap and a narrow gap steady state equilibrium. It is shown that a larger amount of voluntary contribution would be there in narrow gap equilibrium compared to wide gap.

Status: Ongoing (Expected date of completion: three months)

#### Completed Research Projects

### 31. IPR Regime and Antitrust Implications of Mergers & Acquisitions: Evidence from the Indian Corporate Sector

P.L. Beena

Sponsor: (SEED Grant, CDS)

Implementation of IPR regime as part of WTO agreements is expected to boost the technological capabilities of the industry. However it is quite evident that leading firms especially in the technology oriented sectors at the global level have strengthened their competitive positions by acquiring their potential competitors. Such aggressive growth strategies are adopted by leading firms owned by Indian business groups or multinationals operating in India as well. Out of 119 combination orders cleared by CCI during the period 2011 to 2013, 50 per cent of mergers were horizontal in nature. 24 per cent of them were conglomerate mergers. And another 21 percent of them were either vertical or horizontal and vertical (Bhattacharjea, 2016). While firms in India are trying to consolidate or engage in foreign acquisitions, many of the successful start-ups in India are being either acquired by the foreign firms or by their counterparts operating in India. Given this context, the present paper makes an attempt to understand the recent trends and consequences of mergers and acquisitions in the most M&A intensive and technology intensive sectors such as Drugs & Pharmaceutical and Software and



addresses the antitrust issues related to innovation and competition. The paper is divided into four sections. The section 1 would highlight the significance of the study and set an analytical framework in the light of the theoretical and empirical literature on the issues regarding merger regulation and competition policy under new IPR regime. The trends and pattern of Mergers and acquisitions is discussed at length in the section II. A detailed case study of impact of such mergers in the Drugs & Pharmaceutical sector and Software industries is analysed respectively in section III. It further reflects on the antitrust implications of the start ups and small firms that are engaged in M&A deals. The last section sums up the major observations and list out the policy implications.

Thus the study observed that significant number of firms especially in the technologically oriented industries has been acquired by the foreign firms. The deals relating to M&As have been predominantly horizontal rather than vertical in nature. The large incidents of M&As including CBM&As in internet services, financial services, advertising, travel agencies and other business services are notable. Drugs & Pharmaceutical and Software Industries were witnessed large number of M&A deals either between the domestic firms or between the domestic and foreign firms although other industries such as food and beverages, household appliances, personal care products and automobiles also had a high concentration of M&A deals. On the basis of available evidence, the paper argues that enhancing size in terms of corporate control of equity, product market share and innovation market share could be the motivations for the M&A phenomenon in the industries such as Drugs and Pharmaceuticals and Software. However, these technology intensive and merger intensive industries were spending more on in house R&D or import of capital goods. These industries were also appropriating huge profit margin as compared to the manufacturing sector as a whole. Anticompetitive practices in terms of pricing, and abuse of dominance is visible in those industries discussed in this paper. The study argues for introducing regulatory mechanisms which could address the antitrust implications of M&As that are engaged

in knowledge-based firms and start-ups as such acquisitions can change the innovative and competitive dynamics in the relevant product and geographic market.

Status: Journal of Antitrust Bulletin (Forthcoming, 2020)

### **32. Structure, Direction and Export contribution of Kerala State: With Special Reference to Cochin Special Economic Zone**

P.L. Beena

*Sponsor:* Kerala and the World Economy, Government of Kerala.

Being a multiproduct zone, managed and administered by the central ministry through Development Commissioner, CSEZ offers various incentives to the units operate within the zone. The success of a Special Economic Zone depends on the ability of the zones in attracting more firms into the zones and making them a major contributor in export promotion, attracting investment and employment generation. Given this context, this paper tries to analyse the contribution of exports of goods, structure, direction and growth during post-liberalisation era. Further it analyses the export diversification of CSEZ, the factors conducive to CSEZ in terms of incentives and infrastructure, the role of CSEZ in employment creation, investment generation, technological and product diversification. The ownership pattern of the firms operating within the zone is also important to analyse as it helps us to understand which category of firms are mostly engaged in the technological licencing, product diversification and R&D. This has been done with a comparative perspective. Thus the paper argues that the share of exports of goods from Kerala to GSDP did not grow during the post-liberalisation era. This share has actually deteriorated as compared to the 1980s. Further it is argued that although the exports of goods from Kerala performed much better during the post-WTO period, the rate of growth was low during post-2010 as compared to the previous decade (i.e., 2001 to 2010). This trend is almost similar to the pattern experienced by Indian export of goods.



The export pattern of commodity composition as seen in 2017 is still skewed towards low value added items although there is an improvement when compared to its performance during the 1980s.

Further, the study argues that the exports that took place through Kerala are having intra-industry trade linkages. The study observed that the major export through Kerala CSEZ in value terms is Pearls, precious or semi-precious stones/metals and article, the two major high tech products are Aircraft, spacecraft & parts thereof and Optical, measuring, medical & similar instruments & parts. Majority of the firms rated the quality of infrastructure provided by Cochin Special Economic Zone as Good. Majority of the firms have only one unit located inside the CSEZ. Nearly 35 percentage of the firm do have their units outside Cochin Special Economic zone. Ease-of-export, port access, Hassle-free-business, Single window, Income-tax-holiday, Duty-free-import, Duty-free-DTA-procurement, and VAT-/GST/MAT Rebate, Infrastructre-outside-SEZ, Labour-availability were other factors for attracting the firms operating within the zone.

Status: Working Paper, CDS, Chapter in a Book

#### ***Ongoing Research Projects***

### **33. Industrialization for Jobs and Growth: A Case Study of Cellular Mobile Phone Manufacturers in India**

Chidambaran G. Iyer

*Sponsor:* Indira Gandhi Institute for Development Research & Ford Foundation

The exponential growth of the Indian telecom market has in recent times brought the cellular mobile phone industry in the limelight; in the hope that huge employment will be created; investments in the industry are being welcomed by the government through various sops and incentives. Most of the studies on this industry are in the nature of journalistic or industry body reports. This study tries to understand the investment and employment created by the cellular mobile manufacturing in India. It also tries to find if any domestic

linkages have been created for the supply of inputs to this industry.

Status: Ongoing (Expected date of completion: June 2020)

#### ***New Initiatives***

### **34. Revisiting the Process of Industrialisation in Kerala**

P.L. Beena

Trade liberalisation policies followed by Government of India since 1990s are expected to influence the export performance and industrialisation process of each state. Much of the studies dealing with Kerala's industrial backwardness focused mainly on high wage cost, low productivity, lack of sectoral interlinkages, etc. (Subrahmanian and Pillai, 1996; Thomas, 2005). An attempt will be made in this study to analyse the structure, direction and contribution of exports that took place through Kerala state and the process of industrialisation.

Status: New Initiative

### **35. Making Covid-19 Medical Products Affordable: Voluntary Patent Pool and TRIPS Flexibilities**

Sudip Chaudhuri

The proposal of Costa Rica to create a voluntary pool mechanism for medical products and technologies for COVID-19 has evoked huge interest and optimism. WHO and Costa Rica have followed it up through a Solidarity Call emphasizing the need for voluntary licensing on non-exclusive basis to Medicines Patent Pool (MPP). The success of a voluntary pool critically depends on the willingness of the patentees to join the pool. In a public health crisis, boundaries of public policy must not be determined by the patentees. MPP will work much better if the patentees are compelled or induced to join the pool. International cooperation is important in this regard. Highlighting the virtues of voluntary measures and promoting MPP without adequate emphasis on the use of compulsory licensing and other TRIPS flexibilities, actually weakens the MPP. In the





light of the experience of MPP, the basic objective of this paper is to analyse to what extent voluntary pool mechanisms can be relied upon to make COVID-19 medical products affordable and accessible. It is important to appreciate the achievements of MPP. But the constraints under which it operates and its limitations must also be kept in mind.

Status: *SouthViews*, No. 200, 16 June 2020, Geneva: South Centre.

### **36. Making Medicines for Pandemics: Can Bangladesh do for COVID-19 what India did for HIV/AIDS?**

Sudip Chaudhuri

During the AIDS pandemic, the world benefitted from the absence of product patent protection in pharmaceuticals in India. After supplies from India started, the prices of an effective patented AIDS drug combination crashed leading to significant scaling up of treatment. India became the dominant source of AIDS drugs for the vast majority of the people in developing countries. India was able to do this not only because these products were not patented in India but because India succeeded in developing an industry from basic stages with capacity to supply the drugs in large volumes. As and when new medical products for the COVID-19 pandemic are developed, if these are patented, then India will not be able to play a similar role because India has introduced product patents in 2005 in line with TRIPS. But Bangladesh has the potential to do so since as permitted by TRIPS for LDCs, such patent protection has been abolished in the country in 2008. The paper discusses the evolution of the industry in the two countries and analyses the differences between them to make medicines for pandemics affordable and accessible.

Status: Accepted for publication in *The India Forum*.

### **37. The Evolution of the Pharmaceutical Industry in Bangladesh, 1982 to 2020**

Sudip Chaudhuri

Most developing countries depend on imports for the supply of essential medicines. Many developing countries have been

finding it extremely difficult to promote local production. But despite being a Least Developed Country (LDC), Bangladesh has succeeded in developing a pharmaceutical industry. The rise of the pharmaceutical industry in Bangladesh is attributed to the Drug Ordinance of 1982. This created a market for local firms for simple generic formulations which were earlier imported or manufactured by the foreign firms. Local firms grabbed the opportunity and dramatic growth of the industry led by local firms followed. But manufacturing of active pharmaceutical ingredients was neglected. This did not constrain the growth initially with the availability of cheap supplies from India and then China. But this has emerged as a critical bottleneck today. Bangladesh, as an LDC abolished product patent protection in pharmaceuticals in 2008 and what the 1982 Ordinance did for generic products, the change in the patent regime has been doing for patented products. Bangladesh has introduced to the market a number of patented products at very low prices. This is a significant development. But the traditional sources of APIs, viz., India and China cannot officially export patented APIs to Bangladesh. Due to the difficulty of sourcing patented APIs, Bangladesh is unable to enjoy the full benefits of absence of product patent protection. Some steps have been initiated for the growth of the API sector. For the efforts to succeed, the government needs to be more directly involved in developing the technological base of the industry.

Status: Submitted for CDS Working Paper

### **38. To What Extent Did Developing Countries Use Compulsory Licensing to Make Medicines Affordable: An Analysis with Special Reference to India**

Sudip Chaudhuri

In line with the TRIPS agreement of the World Trade Organization, India has re-introduced product patent protection in pharmaceuticals from 2005. Thus, Indian generic firms will no longer be able to manufacture and sell patented products unless they get voluntary licences from the patentees or compulsory licences from the government.



If the prices of patented products are high, then TRIPS permits countries to grant compulsory licences. This is one of the major instruments which countries have to ensure that patented products are affordable and accessible. But only few countries have been able to use compulsory licensing. In this paper in the light of the experience of developing countries with compulsory licensing with special reference to India, we will analyse the prospects of using it and making it more effective.

Status: Expected to be completed by September 2020.

## (f) INNOVATION AND TECHNOLOGY

### **Completed Studies**

#### **39. Effect of Innovation on Corporate Social Responsibility: Does Ownership Matter? Evidence from Indian Manufacturing Firms**

Ritika Jain and Krishnapriya V.S. (Doctoral Scholar)

This paper examines the effect of innovation spending on corporate social responsibility (CSR) decisions and how this relationship is affected by state ownership. Since CSR mirrors the objective of the government and innovation has selected public good properties, presence of state ownership will influence the relationship between these two activities. Based on the resource based view that identifies both CSR and innovation as resourceful and competitive advantage generating activities, the paper posits two testable hypotheses. Using firm-level data on India's manufacturing sector, the study examines the relationship between innovation and CSR spending in the period after the mandatory CSR provisions of the Companies Act, 2013 came into force. An instrumental variable approach is adopted to overcome the problem of endogeneity. To examine if the innovation-CSR association is affected by state ownership, the study draws firm level data on two Indian industry groups spanning from a period of 2011 to 2016 and uses double robustness models and an instrument variable approach. The results suggest that innovation affects

CSR positively confirming the main hypothesis. The effect is stronger for government owned firms as compared to private firms.

Status: Revise and resubmit from Economics of Innovation and New Technology

#### **40. Is R&D Spending Influenced by Disinvestment and Local Political Corruption? The Case of Indian Central Public Sector Enterprises**

Ritika Jain

The current study examines the effect of disinvestment (dilution of state ownership) and local political corruption on R&D spending in enterprises owned by the Central government of India. Based on certain characteristic features of innovation as a strategy available to state owned enterprises, the study builds two sets of hypotheses formalising the channels of how these variables may affect R&D possibility and amount. Drawing data from multiple sources, the study compiles a dataset that covers all manufacturing central government owned enterprises in India and spans for a period of ten years from 2007 to 2016. The study employs instrument variable technique for reducing the endogeneity between disinvestment and R&D decisions. The study finds that while disinvestment and local political corruption have strong negative effects on whether a firm invests in R&D or not, it has no effect on R&D amount. In fact, R&D amount is driven by a host of firm specific factors such as size, profit and proficiency of labor- share of skilled labor, managerial strength and non-unionisation of labour. Finally, the study finds that the effects are strongly driven by the size of firm, type of firms and ideology of the state where the enterprise operates.

#### **41. History Does Matter, India's Efforts at Developing a Domestic Mobile Phone Manufacturing Industry**

Sunil Mani

Over the last several years, the country has been concerned with increasing the size of its manufacturing sector to at



least a quarter of her GDP. This was sought to be accomplished first through a manufacturing strategy and specifically since 2014 through the Make in India programme. Nagaraj (2019) has shown that the latter programme while improving India's ranking in the World Bank's Ease of Doing Business has failed to improve the performance of the manufacturing sector or improve the technological capability as a whole. India's widening trade deficit in manufactured good and technology payments are enough empirical proof to show that the programme is yet to deliver. Further manufacturing employment has also been a casualty. Our dependence on both MNCs and imported components and parts has increased in the recent past. In fact, since the liberalization of India's industrial sector, import dependence of the sector has been on the rise (Mani 1991, Chaudhuri, 2013). A manufacturing industry where this is evident is in the domestic manufacture of mobile phones. Misra and Shankar (2019) have done an empirical analysis to show that India's consumption-driven imports of fully assembled mobile phones have been transformed to production-induced imports of parts for manufacturing mobile phones domestically. This transformation is then hailed as a desirable outcome of the recent policy attempts to increase the size and content of India's domestic manufacturing industry, especially in electronics products and telecommunications equipment in particular.

India has become one of the largest markets for telecommunications equipment in the world. The total number of telecom subscribers in the country is 1.16 billion (as on March 31, 2019). During 2017-18, on an average, very nearly 6 million subscribers were added per month. This implies that there is a growing demand for telecommunications equipment of various types in the country like mobile handsets, transmission towers, Internet gear etc. Although right through the beginning the country has sought to build manufacturing and innovation capability in telecom equipment, studies have shown that these capabilities are largely in the arena of fixed-line telephones and not in mobile communication equipment. For the latter, the country has been relying on imports primarily from China,

which by all accounts has been increasing significantly. Imports of telecom equipment have been rising since early 2000 and resulting in an ever-increasing trade deficit. The trade deficit is almost equivalent to the imports implying that the country hardly exports any telecom equipment

The growing imports of telecom equipment especially at a time when demand for it has been growing bring to the table two important implications:

(i) Telecom equipment is one of those industries, which has been targeted for import substitution right through the period since independence. This policy of import substitution manifested itself in reserving telecom equipment to the exclusive preserve of public sector enterprises. The state-owned undertaking, ITI, was one of the first public sector enterprises established by independent India. This policy received a fillip when the government set up a dedicated stand-alone public laboratory in the name of Centre for Development of Telematics (C-DOT) to develop a family of digital switching equipment, which was consistent with the usage pattern. However, this policy of extreme government intervention resulted in some technological capability building in telecom equipment of the fixed-line variety. However, no capability was developed or evolved in mobile communication technology, which took the telecom market like a storm from the late 1990s. The Indian case is in sharp contrast to other Asian countries such as Korea and now China, both of which have effectively transformed their innovation capability in fixed-line telecom technology to mobile communication technology. Subsequently, both countries have become important manufacturers of mobile phones in the world.

(ii) This was also the time when the market for mobile communications equipment increased quite significantly. Consequent to this lack of technological capability, especially in the conceptualization, design and manufacture of especially mobile communication equipment was the excessive reliance on imports and that too from China to meet this ever-growing domestic demand. In fact, imports of telecommunications equipment is an important item in



the import of electronic equipment to India, which has been responsible for the burgeoning trade deficit of the country. This has necessitated the government to put in place an important policy of hastening domestic manufacturing of especially electronics hardware in general and telecommunications equipment in particular.

To capitalize on this growing market for telecommunications equipment, the government has been trying to establish a domestic hub of sorts for domestic manufacturing of mobile phones and parts. Of the various policies which had stated the creation of a domestic manufacturing hub for telecom equipment, the most direct one was the National Telecom Policy of 2012 which had stated in its mission that India should be made a global hub for telecom equipment manufacturing and a centre for converged communication services. Following this, a wide range of explicit and implicit policies was put in place for achieving this goal. The earlier policy on manufacturing strategy and the Make in India programme put in place since 2014 may have resulted in increased domestic manufacturing.

In the context, the purpose of the study is to see how far the country has become a hub for manufacturing telecom equipment. In the process, we also analyse the policies that were implemented to enable the country to become one.

The paper undertakes a detailed survey of the policies that have been enunciated to increase domestic production. These policies are (i) liberalization of FDI concerning telecommunications equipment; (ii) public technology procurement giving preferential access to domestically manufactured mobile phones; (iii) a phased manufacturing programme to increase the domestic content of domestically manufactured mobile phone; and (iv) increasing the customs duty on imported mobile phones.

There is evidence to show that domestic production of mobile phones has registered some significant increases since 2015-16. However, these are largely by MNCs based on imported parts. As such, no domestic production or innovation capability has been created or is in the offing in

the foreseeable future. This dependent development has led to India's technology trade deficit increasing on account of increased royalty and license fee payments besides dividends and profits being repatriated abroad. The exercise shows that while we have started making mobile phones in India to reverse the growing trade deficit in telecommunications equipment, this is leading to increased imports of parts and a worsening Gross Value Added to Gross Value of Output ratio. So domestic manufacturing does not seem to be an antidote to reducing the growing trade deficit in the merchandise account of India's Balance of Payments. The telecommunications revolution is leading to a dependent form of development. A stricter monitoring of the PMP may go some way toward reducing this otherwise undesirable trend.

The fact that India is depending too much on foreign technology and imported parts for establishing a mobile phone manufacturing industry is the result of a faulty policy of not strategically directing her dedicated public R&D programme to do develop capability in mobile phones. In this way the lesson to be learned is from Korea and China both of whom assiduously built up much internal innovation capability in mobile phone technology and so when demand for mobile phones grew both in their respective domestic markets, and indeed in foreign markets, both the countries have telecommunications companies which not only are to service their domestic markets but also the export markets. In fact, both the countries have firms, which have become the leading players in the world in mobile phone technology.

Given the state of affairs, what possibly can be the way out? Instruments such as the PMP may reduce the extent of imports of parts and components and thereby improving the domestic value added to value of output ratio. But given the lack of innovation capability the dependent form of development that the country is currently forced to follow is likely to continue for the foreseeable future. The only way that this can be reversed is for the country to make a wholehearted attempt at reviving the public laboratory, C-DOT so that focuses on recent trends mobile communication technology. In fact, a consortium approach is to be adopted



to link the laboratory with domestic manufacturing firms so that the fruits of R&D can immediately be transferred. Without such a strong fillip to domestic R&D efforts, innovation capability can neither be maintained nor improved upon. The experience of China in nurturing her innovation capability in telecommunications equipment is an excellent recent example for us in India to emulate.

Status: Already published as a CDS Working Paper No: 489; Also accepted as a special article in the journal, *Economic and Political Weekly*.

### **Ongoing Studies**

#### **42. The Saga of Indigenous R&D in India's High Technology Industry: The Case of Train 18**

Sunil Mani and Chidambaran Gurunathan Iyer

India initially followed a policy of growth with technological self-reliance, but it is now increasingly depending on foreign technology which comes essentially through multinational corporations (MNCs) and via technology licensing agreements between unaffiliated Indian companies and MNCs. Now, barring the rare exceptions such as space, the country cannot boast of developing technology through indigenous efforts in a number of high technology areas such as nanotechnology, semiconductors and civil aircraft industries to name a few areas where such efforts were mounted despite the fact that the country has number of technologically speaking very capable public research organizations. India's Gross domestic expenditure on R&D as a proportion of the Gross Domestic Product (GDP) has been stagnant at around 0.70 since 2012.

An area where India's indigenous R&D efforts have been very successful is in the design and manufacture of railway engines and coaches. Engines are manufactured at the railway production units at Chittaranjan and Varanasi and country's requirement of rail coaches are met through domestic production at three coach factories at Perambur, Kapurthala and Rae Bareilly. The coach factories have improved their productivity, over time, as measured by

significant reductions in the time taken to manufacture coaches and exports of railway coaches and engines have shown a spike since 2015-16. Of the three coach factories, the Integral Coach Factory (ICF) set up in Perambur near Chennai in 1955 is the major one as it has manufactured about 50,000 coaches since its inception- the highest by any rail coach manufacturer in the world and also has state-of-the-art infrastructure to manufacture stainless steel LinkeHofman Busch (LHB), coaches. At present, ICF is the forerunner in the manufacture of self-propelled coaches, viz. electric multiple units (EMU), mainline electric multiple units (MEMU) and diesel electric multiple units (DEMU) in the country. However, in the design and manufacture of train sets, which is common in all developed railway systems in the world, India till very recently has been a laggard. The introduction of indigenously developed and manufactured train set, i.e. the Vande Bharat express or Train 18 has proven India's design and development capabilities in this important technology (Press Information Bureau, 2019). The Train 18 (named after the year of its launch, 2018) is India's first semi-high-speed train. The train is India's first self-propelled train designed and manufactured in India for long-distance inter-city travel. Manufactured at Rs 97.5 crore - less than half the global cost, it was made largely of domestic components. Initially two train sets consisting of 16 coaches were made and put into operation in two different lines of the Indian railways. Their occupancy rates have been 100%, showing their immense popularity among the commuters. It was also initially proposed to manufacture a total of 640 train set coaches in the three years 2019-20 through 2021-22 although there is some confusion about the actual order that has been given to ICF. However, by the middle of 2019, the government withdrew these orders placed with ICF and then floated a global tender for supplying these train sets which put the indigenous R&D into jeopardy. The situation was similar to the telecommunications equipment case where a similar situation was noticed.

After much furore in the national press and also strong opposition emanating possibly from groups subscribing to self-reliance within the ruling and the opposition parties





the Railway Board has approved, on 16 December 2019, for the ICF to manufacture 160, 240 and 240 coaches respectively for 2019-20, 2020-21 and 2021-22 at ICF (Lok Sabha, 2019), the new rakes will be manufactured on a revised design of the Train 18 model approved by the Research Designs and Standards Organisation of the Indian Railways (RDSO). These trains will be both lighter and more fuel-efficient than the initial sets.

The history of domestic technology development in India shows the need to not only support the adoption of indigenous technology but also stop putting roadblocks in the development of home-grown technologies. We must learn from our past and allow manufacturing technologies of the type of Train 18 to flourish so that government's flagship programmes such as *Make in India* succeed in an organic sense.

Status: Ongoing (Expected date of completion: April 15, 2020. Will be published as an article in an online journal)

#### **43. Diffusion of Industrial Robots and Manufacturing Employment, an International Comparative Analysis**

Sunil Mani and Patarapong Intarakumnerd (National Graduate Institute for Policy Studies, Tokyo)

The total worldwide stock of operational industrial robots at the end of 2016 was in the range of 1828000 to 2160000 units. Country-wise distribution shows that China had the highest stock volume of 340000 in 2016- registering a growth rate of 33 per cent in 2015. China alone now accounts for 19 per cent of the global operational stock and those displacing Japan as the country having the largest operational stock. Further, the operational stock of all other Asian countries excluding China and Japan has been continuously increasing. The reason for the strong increase in other Asian countries was the considerable rise in robot installations in Korea and the ASEAN countries. The proposed study will work out the density of robots in manufacturing per unit of manufacturing employment across a range of countries by focusing more on the Asian countries

which together account for a lion share of total robotic installations. The study will particularly focus on the details of robot densities by analysing the industries and tasks within industries for which robots are used. This will help us to understand the extent to which automation through industrial robots are displacing human labour across the various Asian countries. Further the analysis will also help us to understand the key determinants of robotic installations. Such an understanding will help us to make a reasonable prediction of the degree to which diffusion of robots may have any effect on manufacturing employment.

Status: Ongoing (To bring out as Working Paper and then a journal article)

#### **44. The Diffusion of a Cashless Economy in India, its Trends and Challenges**

Sunil Mani

India has gone through a controversial policy of demonetizing two of its specified bank notes, which accounted for over 86 per cent of her currency in circulation. 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 cashless one supposedly for preventing tax evasion and corruption both of which are the main conduit for the emergence and sustenance of unaccounted incomes. Further, the government is hoping to create an elaborate digital payment system. In the context, the purpose of the paper is to first verify the hypothesis whether low cash to GDP ratio is positively correlated with a low unaccounted income to GDP ratio, as this is the basic rationale for moving to a cashless economy. Second, the study surveys, in a detailed manner the diffusion of a cashless economy and the factors affecting the diffusion of a cashless payment system in the country. These factors can broadly be classified into software and hardware related issues. Software related issues include whether a household has a bank account, has the necessary digital literacy to operate digital payment systems. Prominent hardware related is whether a household





has a smart phone or a computer and has access to broadband and the speed of the broad and quality of connections etc. Finally, the paper also assesses the latent negative implications of the move to increased cost of simple transactions, cyber-crime, unintended negative consequences on employment of hasty automation of financial payments, and haphazard importation of electronic hardware for establishing a digital payment system and its effect on other programmes of the government such as the 'Make in India Programme'.

On November 8, 2016, Government of India demonetized two of its largest circulating bank notes, which accounted for about 86 per cent of the notes in circulation at that time. The sudden and abrupt decision has attracted considerable attention from commentators, much of it journalistic. However, there have also been very quick and detailed analysis of this event which is now referred to as the most significant economic event (Reddy, 2017, Ghosh, Chandrasekhar and Patnaik, 2017) of recent times. The objectives and the design and implementation of the scheme have drawn much flak from all quarters although there has been very little opposition to this measure from anywhere in the country. On the contrary, a survey done among slum dwellers in Mumbai, showed the counter intuitive result that despite experiencing a fall in their monthly incomes by as much as 10 per cent, majority of those suffering the fall welcomed the demonetization policy. In the context, it is interesting to note that in diverse non-democratic countries such as Myanmar, erstwhile Soviet Union and North Korea. In all these situations, there have been violent opposition to demonetization and these have manifested itself in terms of riots in the case of Myanmar, complete disintegration in the case of erstwhile Soviet Union and hunger, famine and deaths in the case of North Korea. In India, demonetization despite its alleged negative effects have had wide support as its objectives of dealing with Fake Indian Currency Notes, terror financing and black money. However the actual empirical evidence on these objectives have been scanty. This can be explained as follows:

- (i) The quantity of Fake Indian Currency Notes (FICCN) in circulation is only an insignificant share of the total currency in circulation. With such a insignificant and low share, a very drastic measure such as demonetization is very difficult to be justified.
- (ii) Studies and indeed government reports have shown that much of the black money is not retained in the form of currency notes but in the form of assets such as real estate and gold jewellery. In fact cash is the least preferred form of black money holding.

The two major sources of black money creation are political corruption and tax evasion. Both these are not affected by demonetization *per se*. The fact that over 80 per cent of the Specified Bank Notes of Rs 500 and Rs 1000 have since been surrendered to the banking system clearly shows that the people who were holding these currency notes are capable of explaining to the tax authorities its source. In other words, there is very little black money in the system in terms of cash holding.

The next aspect has been the design and implantation of the demonetization scheme. There are two characteristics of it:

- Adhoc, unstructured and piecemeal- rules have been changed about 60 times since November 8, 2017.
- Iterative and hence not *surgical*- proximate aim has now changed from the twin objectives to *evolving a cashless economy* in the shortest possible time even when the necessary and sufficient conditions for such a move is not in place

It is very clear that the move to a cashless economy was an after thought especially when the government realised that her original two objectives did not have much empirical validity. Given the iterative nature of the demonetisation, as shown above, it hardly merits the term 'surgical'.

However, what is most striking is the fact that the policy which has caused too much of inconvenience to an average citizen as India is largely a cash based economy has evoked very little negative response from anywhere in the country.



In fact this has been proven again in the state-level election results in one of India's largest states, Uttar Pradesh.

It is generally assumed that a cashless economy promotes tax compliance and hence less black or unaccounted income. However the international evidence on this shows just the opposite. Many cashless economies, such as Norway, Sweden Denmark, Turkey etc., have fairly large underground economies and on the other hand cash based economies such as Japan have very low black economies.

In short moving to a cashless economy need not necessarily reduce the size of an underground or black economy. We have used the measure of underground or black money developed by Schneider (2016). His approach to measuring the size of the underground economy is based on a variety of monetary and labour market indicators, including the labour force participation rates, the quality of public delivery, and other indicators. However the definition is a narrow one as it does not include illegal or non market activities. It only captures all, otherwise, legal activities that are concealed from authorities to avoid various types of taxes (income, sales, Value Added, social security contributions etc). In other words, the Schneider methodology tends to underestimate the extant of black money in an economy.

As noted before, India is a cash based economy. Demonetisation has supposedly removed 86 per cent of the cash in circulation and the patchy data on remonetisation states that only about 64 per cent of that has been replaced. This is because the government is now stating that the objective of demonetisation has been to increase the use of cashless modes of payment. Immediately after the demonetisation, there has been a sudden move towards using cashless modes of payment. However soon enough, with increasing remonetisation and removal of withdrawal restrictions, once again people have re started using cash for payments.

Cashless modes of payment are very many. However the most frequently used ones is the use of a debit or credit card at a Point of Sale (POS), online transfer of cash from one bank account to a beneficiary's account, either through

the National Electronic Fund Transfer (NEFT) or the Real Time Gross Settlement (RTGS) facility. However their overall growth rate in terms of both volume and value has been on a declining trend since 2012-13. Demonetization seems to have increased the probability of using cashless modes of payment, as cash was scarce. However, paradoxically after an initial spurt in cashless modes of payment, that too immediately after demonetization, people have turned themselves back to cash for payments. We demonstrate this using both aggregate and disaggregated data.

It is seen that despite demonetization, and the slow move towards remonetization, cashless payment modes have hardly diffused. There are several reasons as to why this is the case. These factors can broadly be divided into two groups. In group 1, we have three factors coming under the rubric of physical infrastructure like low financial inclusion, low diffusion of broadband and low diffusion of Points of Sale (PoS) devices. In group 2 we have other non-tangible factors such as culture, habits and digital literacy. We discuss each of these in greater detail.

One of the primary requirements for cashless payments is for one to have a bank account. One out of every two Indians still does not have a bank account. In fact, there are two official sources of data on financial inclusion. First is the all India debt and investment survey (the NSSO 59<sup>th</sup> Round) and second is the decennial census data, the latest of which refers to 2011. Between these two sources, one can glean a fair idea of the extent of financial inclusion in the country. According to the former source, almost 51.4 per cent of the farmer households are financially excluded from both formal and informal sources. According to the latter source, only 58.7 per cent of the households are availing banking services in the country.

The physical infrastructure for cashless payments is not in place in an optimal manner. The first aspect of this is the access to broadband Internet, which is the fundamental requirement. Most Indians who are Internet subscribers are narrow band subscribers (characterized by very low speeds). As per estimates by TRAI, there were, as at the



end of April 2017, only a total of about 277 million broadband subscribers in the country (Telecom Regulatory Authority of India, 2017). Over 94 per cent of them access it through a mobile device while only about 6 per cent of do it through fixed Internet. Further, India has of the lowest broadband speeds in the world (Akamai, 2017). All these make cashless payments a difficult proposition.

The second aspect is the availability of Point of Sale (PoS) machines. According to RBI, the total number of PoS machines in the country increased by around just 3 per cent from 2.53 million on March 31, 2017 to 2.61 million on April 30, 2017 (Reserve Bank of India, 2017). But according to industry sources not more than a million merchants actually accept card payments. This means that the country will have to import and install a large number of PoS machines within a short period of time for the installation base of PoS machines to be raised. Typically, a point of sale (PoS) machine costs Rs 8,000-12,000, which could cost less after the waiver on excise duty and special additional duty on all components used in their manufacture. But banks must still bear the operational costs, including merchant discount rate (MDR) which they cannot collect for now. MDR is a commission charged by acquiring banks to the merchant for every transaction on its card machine. A bank typically earns an MDR of 0.75% for transactions up to Rs. 2,000 and 1% for those above Rs 2,000. Large scale imports of PoS machines and that too within a short period of time has another unintended consequence as well. It can add to the burgeoning import bill for electronic products thus denting the policy on "Make in India". The volume of credit and debit card usage at PoS have not shown any increase over the recent months when cash is in short supply. But cyber crimes involving credit and debit card frauds have been increasing as well and this may act as a deterrent to a faster diffusion of various cashless modes.

Status: Ongoing (Plan to publish as a journal article after completion)

#### **45. Emerging Technology, State and National Innovation Capability: An International Comparative Analysis Based on Artificial Intelligence (AI) and Robotics and Autonomous Systems**

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Over the last two decades or so, at least eight new and emerging technologies have been commercially applied in the agricultural, industrial and service sectors across the nations of the world. These emerging technologies ranging from big data and energy-saving computing to the commercial application of space science, to regenerative medicine to genomics to agri-business to robotics and nanotechnology and they are making a significant difference to the way we live and work, not to speak of its effect on productivity.

In addition, from the Industrial Revolution, some new technologies change the behavior of production system and the productivity, and it turns into General Purpose Technology (Helpman, 1995). In this sense, diffusion of emerging technology is not only important to enhance economic capability in nation level and firm level, but it had also to confront with path-dependency of the technology and stickiness of the legacy technology.

And, it is not incorrect to state that the future economic performance and human development across nations will depend on their capability not only to generate these emerging technologies but their diffusion as well. Given the complexities of these technologies, the high failure rate and the lumpy investments involved the explicit role of the state is an integral part of the generation and diffusion of such emerging technologies. The two emerging technologies that we consider are AI and Robotics both of which will play an important role in increasing the competitiveness of both the manufacturing and service industries in the future. In the sense it is a General Purpose Technology that will matter for a nation's prowess in manufacturing.



How the emerging technology occurred and constituted social and economic impact? What is the crucial factor for emerging technology in the perspective of national innovation system? In this study, we aim to show the constructive process of new emerging technology such as Robotics and autonomous systems by using scientific paper, patent, and product information database in the framework of national technological capability. (Lall, 1992)

Our research method is as follows; (1) Collecting any corresponding data from Scientific Paper Database such as Scopus and Web of Science, Patent Database such as PATSTAT, IIP Patent Database, and Thomson Innovation, and Product Inventory Database such as Consumer Products Inventory Database from World Robotics Industrial Robots Database. (2) In addition, any government and private funding information for this emerging technology is summarized to realize how these investments applied for R&D activity on these emerging technologies. (3) Connecting these data sources to analyze innovation activity from basic science to marketization. Throughout this process, now we could show entire innovation process in numbers; turn-over rate of the industry, issued patent per year as the proxy of the innovativeness, team-size of scientific discovery, the degree of university-industry linkage by means of non-patent literature information on patent, and type of the product on these emerging technologies.

We may consider measuring NIC in AI robots and autonomous systems by examining the following four stages in innovation:

- Stage 1: Ability to conceptualize a new idea that is new to the universe
- State 2: Ability to convert that new idea for being capable of industrial application (invention)
- Stage 3: Ability to convert that new idea to a commercial proposition (innovation)
- Stage 4: Ability to use the innovation in a widespread manner (diffusion)

Measuring the output of these four stages are fraught with severe empirical problems, but proxies may be relied upon for measuring it with reasonable precision. For measuring publications, we propose to use publications, for new inventions we propose patents and for commercial application, we propose actual production data. Employing these indicators, we will identify the emerging patterns in the generation of new technologies and then identify the extent to which state and markets have intervened to create these emerging technologies across different countries. An index of innovation capability will be developed and countries ranked according to the values on this index over the last 15 years or so.

Status: Ongoing

### **Completed Research Projects**

## **46. Performance of India's National System of Innovation, 2015-2020**

Sunil Mani

*Sponsor: UNESCO, Paris*

The study undertakes a detailed survey of India's innovation system in terms of investments in R&D and in intangibles, the output of R&D in terms of patents, the two factors that constrain investments in R&D in terms of availability and quality of scientists and engineers and the fiscal incentives that promote it. Further the study touches upon the country's adoption of newer technologies in Industry 4.0, green technologies, electric vehicles and in ushering in a cashless economy.

India continues to be one of the fastest growing larger economies in the world, although there has been a decline in the rate of growth of her GDP in more recent times (c 2018-19). Over the period since 2015, her ranking in a number of international ranking frameworks has shown a dramatic improvement. For instance, she has improved her ranking in World Bank's *Ease of Doing Business 2019*, India along with China with 13 reforms between them, are among



the 10 top improvers<sup>1</sup>. In the *Global Innovation Index 2019*, India has jumped five places in 2019 to occupy the 52nd rank (out of 129 countries). In the following, we undertake a survey of the country with respect to innovation and technology especially in the period since 2015. India has also continued to make continued progress in space technology in terms of both designing and launching satellites. A recent 2016 articulation of the startup ecosystem in the country has made India to be the world's third-largest startup ecosystem having approximately 9000 startups in the country (c2019). Further, the number of potential unicorns more than tripled from 15 in 2018 to 52 in 2019, becoming the world's largest pipeline of unicorns in the making. The 2014 announced *Make in India* programme has sought to increase the domestic manufacturing of a whole host of high technology products such as cell phones to electric locomotives and the government has announced a number of new technology strategies in the fields of new and emerging technologies such as Artificial Intelligence (AI) and Robotics, Blockchain technology, Internet of Things, National Electric Mobility Mission Plan and so on. The move towards a cashless economy and the introduction of the Goods and Services Tax (GST) has endeavoured to increase the size of the formal economy in the country. Through the establishment of the National Institution for Transforming India (NITI Aayog) in 2015, an attempt has been made to transform the country through, inter alia, the generation of new ideas. Further, a number of flagship technology-based projects like the *Smart Cities Mission* and *Digital India Programme* has been initiated. This is the specific context in which we undertake a survey of the performance of the country with respect to Science and Technology matters especially in the period since 2015.

Although India has been maintaining a respectable growth rate in GDP, there has indeed been a fall in her savings and investment rates which can have a deleterious effect on her future growth performance. Although the high growth phase during the 2000s have reduced the poverty ratio,

inequality in the distribution of income seems to have increased. On the positive side many of the flagship programmes such as the *Swach Bharat* for instance appears to have increased the sanitation performance. Other programmes have increased access to electricity and financial inclusion. Inflation targeting by the RBI has kept the retail consumer prices under check. India has made good progress in achieving some of the SDG targets especially those under SDG 9 on industry, innovation and infrastructure. Despite having many legal instruments to deal with environmental issues and especially both air and water pollution, air quality in some of the major cities in the country is a matter of serious concern so much to say that it precipitated interventions by the Supreme court in the country. The recent elections have put in place a stable government in power and thus improving the chances for stable public policies for maintaining a sustainable form of development in the years to come. It is against this brief background that we analyse the health of the country in terms of its performance in Science and Technology.

The main input for innovation is thought to be investments in R&D although there is some disenchantment with using conventional indicators such as R&D investments as developing countries such as India has a large number of firms which may innovate but not through the R&D route. But given the lack of good quality data on these non-R&D routes to innovation, one has to conduct the analysis with the conventional indicators. Absolute levels of India's GERD has been consistently increasing over time. At current prices, it has tripled in 2016-17 to Rs1049 billion from Rs 242 billion in 2004-05. However, overall research intensity, on an average over the past two decades at 0.75 per cent of GDP, India has one of the lowest GERD to GDP ratio among the BRICS. What is more worrisome is the fact that the intensity has been declining since 2014. India has moving target for R&D intensity: according to the S&T policy of 2003, this was to 2 per cent of GDP by 2006-7 which was the terminal year of the 10<sup>th</sup> Five Year Plan, but now the Economic

1 In 2019, India's rank in ease of doing business is 77 out of 190 countries. See World Bank (2019).





Advisory Council of the Prime Minister (EAC-PM) has shifted the target to be reached by 2022 which by the current trends in investments is difficult to be reached.

Despite low investments in R&D, scientific publications from India has continued to show a fine improvement. India has even crossed Japan in terms of the total number of good quality Science and Engineering publications and is one of the largest science producing countries in the world apart from EU, China, USA and Japan. This implies that despite all the constraints with respect to funding, production of science from India provides us a cause for optimism. About 23 per cent of the publications are in cross cutting strategic technologies followed by health sciences with 21 per cent of the publications during the period 2016-2018. ICT, Maths and Statistics is the third most important area with 12 percent or so. The relative citation of the papers is 0.80 (2015) compared to 1.20 for G20. Only 18 per cent of the papers had a foreign co-author most likely from the USA. However India has not produced any Nobel laureates in science (Physics, Chemistry and Physiology) in more recent times. Questions have been raised about the quality of instruction and learning outcomes in Science and Maths education at school level although India will be participating in the Programme for International Student Assessment (PISA) tests of the OECD for the first time in 2021.

Although, India's investments in GERD is low, her investments in intangibles (referred to as Intellectual Property Products (IPP) such as R&D, mineral exploration, software and databases, and literary and artistic originals, etc.) form about 4 per cent of her GDP and about 14 per cent of Gross Fixed Capital Formation (GFCF). Further, it has been increasing as well both as a per cent of GDP and as a per cent of GFCF. Intangible investment which is largely at the level of firms spillover to other companies and thereby benefit the industry as a whole in which the specific firm is located. Increase in intangible investments can lead to higher productivity and economic growth in the future. Further trade in intangibles too have been growing and it is interesting to note that the country has a surplus in trade in intangibles when trade in software services are included, but it is

negative when exports of software services are excluded. Trade deficit in intangibles is concentrated in three areas: royalties and license fees which includes charges for the use of trademarks, franchises and similar rights and other royalties which includes the license fee for patents). The fact that this item is growing was noted in UNESCO (2015) and it is also a reflection of the low investments in R&D. India has, of course, a growing positive trade balance in R&D services but these services are largely created and exported by MNCs operating from the country to their parent companies located especially in the USA.

We consider the record with respect to two kinds of patents. First, are the patents issued to Indian inventors by the India Patent Office and second are the patents issued to Indian inventors at the USPTO. Both these will give us an idea about the inventive activity and have shown tremendous increases. However, a closer look at the data in terms of assignees shows that about 85 per cent of the assignees of these patents are foreign inventors largely represented by various MNCs. In fact very few patents are granted to Indian firms, research institutions and individuals. In the case of patents at the USPTO these are largely issued to inventors in just two industries namely the IT services industry and the pharmaceutical industry.

Two important findings are discernible with respect to patenting:

- Indian inventors are basically active only in two technologies: Computer implemented inventions (software) and in pharmaceuticals with the former continuing to dominate in its share of the total
- Majority of the IT patents are by MNCs operating from India and almost all the pharmaceutical patents are by domestic pharma companies

The density of researchers engaged in R&D per 10000 labour force has increased very slowly from 9 in 2005 to just 11 in 2015- the latest year for such data are available. Over the period since 2015, the government has put in place a number of incentive schemes for increasing the supply of scientific manpower.





However, the outturn of graduates in STEM subjects continues to be only a little over quarter of the total number of graduates in the country (Table 3). Within the STEM, the ratio of science graduates continues to be more than Engineering and Technology graduates. The newly announced National Education Policy 201 envisages the establishment of a new National Research Foundation (NRF) that will focus on funding research within the education system, primarily at colleges and universities.

India's tax regime with respect to R&D has four important features:

- First, there are no restrictions on the use of the intellectual property right arising from the R&D financed through R&D tax concessions to be used within India.
- Second, both domestic and foreign companies are eligible to seek the subsidy but their R&D must be conducted within India.
- Third, if a firm is in deficit, unused benefits may be carried forward for the next eight years but not back to earlier years.
- Fourth, qualifying expenditure includes wages, supplies, utilities and other expenses directly related to R&D and the deduction of R&D expenditure shall be the net sum of grants, gifts, donations, etc.

The R&D tax subsidy manifests itself in terms of the amount of tax foregone, which the Ministry of Finance has been estimating on a regular basis. Over the years, the amount of tax foregone as a result of this subsidy scheme has grown at an annual rate of 17% per annum and now accounts for about 8% of all corporate subsidies.

By 2015, the Indian tax regime had become one of the most generous in the world (Mani, 2014). The Union budget for 2016 reduced the tax incentive for performing R&D in business enterprises from 200% to 150% of research expenditure from 2017 onwards and to 100% from 2020 onwards.

Simultaneously, the finance minister announced a patent-box type of incentive for the first time, wherein income

received in the form of royalties and technology license fees received by Indian companies would be taxed at a reduced rate of 10% from the fiscal year 2016/2017 onwards. This move was designed to stimulate innovation by raising the revenue that companies could earn from their intellectual property. The introduction of the patent box encourages output of R&D, while the reduction of R&D tax incentives reduces the incentives for input to innovation.

India has one of the largest and fastest growing telecommunications networks in the world. Further, there has been fast diffusion of the internet in especially the urban areas and the government has been making a conscious attempt to extend it to the rural areas as well. The total number of internet subscribers in December 31, 2018, stood at 604.21 and 86.95 per cent of these subscribers are broadband subscribers (Telecom Regulatory Authority of India, 2019). In 2018, out of the 1176 million mobile phone subscribers, approximately 578.2 million are wireless data subscribers and their data usage has increased from 828 GB in 2014 to 46404 in 2018. This phenomenal growth of data usage mimics the growth of wireless communication and this has been fuelled significant reductions in the cost of data. This has led to the growth of the digital economy. Examples of these are E-Commerce, app based food ordering and cab hailing services, hospitality booking services etc.

Digital economy is at the heart of what is referred to as Industry 4.0. According to UNCTAD (2019) digital economy affects all Sustainable Development Goals (SDGs) and is closely associated with 7 state-of-the art technologies such Blockchain, Data Analytics, Artificial Intelligence, 3D printing, Internet of Things, Automation and Cloud Computing and is fuelled by data. There are 7 technologies which are subsumed under Industry 4.0 and the country appears to have a specific policy or programme addressing either its generation or diffusion.

Much of the adoption of Industry 4.0 technologies have remained within the government. One such technology that has been extensively used within the government is the block chain technology which in some form or other has been



used by nearly half of the state government. The three major uses are in preparing land registry, farm insurance and in issuing digital certificates.

The adoption of Industry 4.0 is at a very preliminary stage in the country for following four reasons: (i) the size of India's organized manufacturing sector is very small: the share of manufacturing sector in India's Gross Value Added at basic prices in 2018-19 is 18 percent (Reserve Bank of India, 2019); (ii) shortages of investment, infrastructure, know-how, and lack of cyber security norms, (iii) High cost of digital technologies although data has become cheaper, (iv) Skill and talent gap which was discussed earlier. However, with programmes such as *Make in India*, the size of her manufacturing sector is likely to increase in the future and the new manufacturing and service sector firms which are in the process of getting established could skip stages and could start with new and modern manufacturing technologies in the Industry 4.0 format. Industry 4.0 involves coming together of digital and physical world and digitalisation of manufacturing process, based cyber-physical systems.

The five year period 2015 to 2020 has been an important one for India. A large number of policies that impact on the S&T performance of the country has been enunciated. These range from a new IPR policy to financing of R&D to a number of specific technology policies dealing all the major emerging technologies. But this country's GERD to GDP ratio is continuing to be less than unity and patenting record by its own domestic corporations, research institutes, universities and individuals is still very low. On the positive side intangible investments primarily by its private corporations have been on the increase. The country continues to suffer from shortages of good quality human resource in science and engineering is not only low but has also been stagnating. High skilled migration from India has been increasing and not enough students are enrolling for science and engineering degree programmes. However, the shortages in S&E graduates coexist with unemployment among these graduates implying low employability of the graduates. The government has put in place a number of policies and schemes to remedy the situation.

The government must put in place research programmes to develop the Industry 4.0 basket of technologies, for these will define the nation's future technological competitiveness by ensuring that domestic businesses have access to them. Institutions like the Economic Advisory Council of the Prime Minister must take up the gauntlet by monitoring the country's readiness for the challenges ahead.

Status: Will appear as a chapter in UNESCO (2020), UNESCO Science Report 2020, Paris: UNESCO.

### **New Initiatives**

## **47. IPR, Innovation and Developmental Implications: A Case Study of Selected Indian Industries**

R.L. Beena

As part of WTO agreements, India has implemented new IPR regime upon which firms have to follow product patent instead of process patent. This new institutional mechanism is designed to encourage invention by protecting their monopoly rights. 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. While many studies (Marzel and Tortajada-Ezparza, 2007) brought out the advantages of using patents as an innovation indicator, there are also studies (Pavitt, 1988; Griliches, 1990; Smith 2005) pointing out the problems related to relying only on patent statistics in order to capture the innovation. Oslo Manuel (OECD, 2005) argues that patents do not reflect the different sources and shapes through which innovation occurs, especially in the service sector where the organisational change and the co-creation of new solutions with clients often takes place beyond the scope of R&D labs. Given this context, Trademarks have also been used as an innovation indicator by many studies. Trademarks are used to signal products quality to the market (Landes and Posner, 1987). Trademarks are more downstream related to the launching of new products and helping them get established in the market rather than to the inventive step itself as happens with patents. Given this context, an attempt has been made



here to understand the growth pattern of IP assets creation across Indian industries, technological activities of selected industries and check whether such strategies has led to any change in their market structure or created condition for appropriating monopoly profit. The paper is divided into five sections including introduction. The first section devotes to discuss the analytical framework based on empirical and theoretical literature. The trends and patterns of IP Assets in India since 2000 are discussed in the second section. The total number of IP assets in this paper comprises of patents, trademarks and designs only. The third part of the paper analyse the technological activities of selected Technology intensive Industries. The association between IP asset creations on the market structure, monopoly profit is being analysed in the fourth section of the paper. The major findings of the paper is summarised in the fifth section.

Status: New Initiative (Plan to publish in a journal)

#### **48. Analysing Digital Payment Systems in India through the Lens of Innovation Systems Framework**

Chidambaran G. Iyer

Policy makers have realized the high cost cash imposes on the economy. Understandably, the Government is encouraging digital payments as it can considerably reduce the high cost of cash. Point of Sales (PoS) payment systems, payment apps, and the United Payment Interface (UPI) are three such digital technologies that are currently used and promoted in the Indian economy. Increasing use of these three technologies will give impetus to the digital payment ecosystem in the country. Thus, understanding the adoption of these three technologies will help formulate policies that will support their adoption.

In this paper, we try to understand the adoption of these three technologies using the innovation systems framework. In particular, we use the tool of functional & structural analysis of innovation systems to analyse the PoS innovation system, payment apps innovation system, and UPI innovation system. The analysis identifies systemic problems that prevent these innovation systems from displacing the existing

system of cash-based transactions. Initial analysis for the PoS innovation system, shows that the Government needs to strengthen market formation, resource mobilization, and creation of legitimacy activities. This will provide much needed support to the PoS innovation system.

Status: New Initiative

#### **49. Frugal Innovations for Dealing with Pandemics, India's Innovation Capability in Digital Technologies and in Medical Devices**

Sunil Mani

In 2020, the world and India has been gripped by a very debilitating pandemic, namely COVID-19. It has virtually brought the world and almost all countries in it to a virtual standstill as a number of countries have locked down their citizens in their homes—lockdowns that have kept more than half of humanity — 4.5 billion people — confined to their homes and crippled the global economy. Offices, factories, shops and educational institutions were closed, and both the governments and citizens have started using a wide variety of technologies for communicating and dealing with the pandemic. Among the various technologies two types stand out: first is a whole host of digital technologies for conducting a wide variety of tasks ranging from e-shopping to conducting online classes and second, is a whole host of medical devices for managing COVID-19. India has a competitive advantage in generating innovations in both as she has a very strong leadership position in computer software which would aid in developing digital technologies ranging from simple mobile apps to more sophisticated technologies for enabling contact tracing and in maintaining social distancing. She is also well known as a generator of frugal innovations which are defined as products which are engineered and made available in the market at prices which are significantly lower than existing products. In the corona virus case, we have seen that certain medical devices ranging from N95 facemasks, to test for COVID-19 to invasive ventilators are priced significantly high for the common man to adopt. In fact, many India forms and startups have risen to the occasion by mounting R&D in making



available this equipment which are costly and at the same time short in supply. In the context, the purpose of the study is to make a survey of Indian attempts at providing cost-effective solutions to both technologies in digital arena and in medical devices and to see what extent capability exist in the country and to what must be done to maintain and improve upon this crucial capability. The study will be based on a mix of secondary and primary resources.

Status: New Initiative (Expected date of completion: March 31, 2021)

## **(g) LABOUR, EMPLOYMENT AND SOCIAL SECURITY**

### **Completed Studies**

#### **50. Unauthorised Recruitment of Migrant Domestic Workers from India: Interest Conflicts, Patriarchal Nationalism and State Policy**

Praveena Kodoth

Indian women are recruited to work as domestic workers in the Middle East in an opaque regulatory environment that embeds the struggle to represent the contentious demands of powerful interest groups. Recent policy measures by the Indian government have virtually closed the legal route to mobility for women. Legal barriers speak directly to dominant patriarchal and nationalist logics that represent control over women's bodies as normative but there is also a tacit acceptance of unauthorized recruitment in response to the demands of influential business lobbies in India and the Middle East. Being poor and unorganized, emigrant domestic workers have little voice in public policy debates that most concerns them. It may be argued that intensification of controls in the recent past alongside tacit accommodation of irregular mobility have given impetus to clandestine recruitment and has served to criminalize women while providing impunity to unauthorized recruiters. Preying on women's fears and aspirations, unauthorized recruiters deceive them with offers of remunerative employment,

pressurize them to withhold information even from their close kin and expose them to heightened insecurity.

Status: Chapter in Michiel Bass (ed.), *The Migration Industry in Asia: Brokerage, Gender and Precarity*, Singapore: Palgrave Macmillan.

#### **51. Do Job Reservations Hurt Firm Performance? Job Reservations, Disinvestment and Firm Performance in Indian Public Sector Enterprises**

Ritika Jain and Vinoj Abraham

This study analyses the impact of job reservation on performance of public sector firms in India. The study relies on data for all central government owned enterprises from 2013-14 to 2016-17 and employs instrument variable estimation strategies to analyse the effects. The study observes that the mandated job reservation thresholds were not met in the Indian Public Sector Enterprises. Further, reserved category workers pile up disproportionately to the bottom of the hierarchy and drastically reduce with advancement of grades. This leads to a skewed representation of all social groups within the enterprises. The results suggest that firm performance is positively influenced by employee diversity across firm's internal hierarchy and negatively affected by clustering of reserved category employees at specific grades. Firms which have a diverse workforce at every level of the organizational hierarchy leads to improved firm performance probably due to better working environment, larger information flow and harmonious labor relations. A blanket implementation of the mandated reservation norms, without ensuring diversity across grades, leads to detrimental effects on firm performance. This has implications on the relevance of existing reservation policies in Indian Central Public Sector Enterprises (CPSEs). An in-depth analysis of policy documents brings out the underlying reasons for this skewed representation of social groups. Finally, the results show that disinvestment to the government has positive implications for profitability of these enterprises.

Status: Submitted at World Development.



## 52. Gender-based Wage Discrimination in Indian Labour Market: An Assessment

Udaya Shankar Mishra and Vachaspati Shukla (Sardar Patel Institute of Economic and Social Research, Ahmedabad)

This study attempts at verifying the pattern of the wage gap between gender in India's urban labour market using NSS 50<sup>th</sup> (1993–1994), 61<sup>st</sup> (2004–2005), and 68<sup>th</sup> (2011–2012) Employment and Unemployment Surveys. The wage gap between sexes in the urban labour market is verified among the regular and casual workers over a period of two decades (1993–1994 to 2011–2012). Using Blinder–Oaxaca decomposition as well as Re-cantered Influence Function (RIF) quintile decomposition analysis, it is observed that there is a male bias in wages in both the categories, namely, regular and casual workers. Female workers are also at a disadvantaged position vis-a-vis male counterparts, and there is considerable disparity exists with regards to employment and earning standard between sexes. The decomposition exercise shows that the role of the discrimination component effect is larger than that of the endowment component across the regular and casual workers. Controlling for characteristic homogeneity, it is observed that female workers have a systematic wage disadvantage against their male counterparts in the urban labour market of India.

Status : The Indian Journal of Labour Economics, 2019, Vo.62, pp.361- 388.

[https://link.springer.com/article/10.1007/s41027-019-00175-8?wt\\_mc=Internal.Event.1.SEM.ArticleAuthorOnlineFirst&utm\\_source=ArticleAuth orOnlineFirst&utm\\_medium=email&utm\\_content=AA\\_en\\_06082018&ArticleA uthorOnline First\\_20190817](https://link.springer.com/article/10.1007/s41027-019-00175-8?wt_mc=Internal.Event.1.SEM.ArticleAuthorOnlineFirst&utm_source=ArticleAuth orOnlineFirst&utm_medium=email&utm_content=AA_en_06082018&ArticleA uthorOnline First_20190817)

## 53. An Analysis of the Unemployment Challenge and India's Policy Response

Vinoj Abraham

India is undergoing a demographic transition from high mortality and high fertility to low mortality and low fertility. The transition promises a demographic dividend, the

opportunity to reap economic benefits through an increase in the working age population due to the relatively larger presence of the youth, increase in labour participation of women owing to the decline in fertility rates, increase in the average years of work life owing to lengthening of the life expectancy and increased savings from households owing to smaller family size. The demographic transition is in effect enabling the entry of a large share of young members in the labour force seeking employment, and these new entrants are going to remain in the labour market longer than their previous generations.

The demographic transition in India follows a service oriented structural transformation in the economy. The structural transformation is also accompanied by a trend break in economic growth from growing around 2 to 3 percent in the 1970s and 80s accelerating to around 5 to 7 percent in the 1990s and 2000s. Demographic transition, structural transformation and economic growth in India would impose dramatic changes to the labour market. Countries transforming from agrarian economies to industrial economies had typically experienced a change in their employment structure. Small land size, subsistence modes of production and family labour in the agrarian economies necessitate agricultural households to have large family size. Working as self-sufficient producer-consumers under weak or absent markets family labour is self exploitative and at the same time severely underemployed, with negligible marginal productivity of labour.

During their transformation to industrial economies labour productivity increases in the agricultural sectors. The shift from family labour in agriculture along with migration of workers in search of industrial employment and the demand for higher skills reduces the need for large family sizes. If there is an equilibrium shift in workers from the agriculture to industrial sector then disguised unemployment in the rural sector should fall, and there should be no open unemployment in the urban sector owing to full absorption of the labour. Economic growth that accompanies structural transformation affects the employment rate through multiple channels. Growth without transformation would imply that





employment growth is affected by the scale and substitution effect. Economic growth, assuming no change in factor substitution, would increase demand for labour and vice-versa. With factor substitution, the demand for labour is affected by demand for labour substitutes. However, during growth with transformation, the demand for labour is driven by the emergence of new sectors, and the shedding of labour from conventional sectors. This type of shift in the sectoral growth patterns would again cause unemployment due to skill mismatches, high search and mobility costs. Given the background above, this paper looks into the nature of unemployment in India and the policy responses.

Status: Accepted for an edited volume (India Development Report)

#### **54. Jobless Growth through the Lens of Structural Transformation**

Vinoj Abraham

This paper aims to analyse the observed “jobless growth” between 1993-1994 and 2011-2012 based on structural transformation to explain why the elasticity of employment generation to gross domestic product growth has declined during this period. This paper uses the job generation and growth decomposition tool to quantify the effects of inter-sectoral mobility of workers, intra-sectoral productivity changes and demographic changes on per capita value added growth. Alternative scenarios are generated to simulate the effect of higher female labour participation rates. Structural transformation in India between 1993-1994 and 2011-2012 was characterised by increasing labour productivity in most sectors, inter-sectoral mobility of workers and a decline in the employment rate. About 81 per cent of the increase in per capita value added was because of a rise in labour productivity; about 24 per cent was because of inter-sectoral shifts of labour; and about 9 per cent because of demographic changes. The decline in the employment rate had a negative effect of “14.20 per cent. The process of transformation was unconventional. First, labour productivity growth was the highest in the service

sector and second, the bulk of the movement of labour was to the construction sector.

Status: Published in *Indian Growth and Development Review*, Vol. 12 No. 2, pp. 182-201. 2019. <https://doi.org/10.1108/IGDR-07-2018-0077>

#### **55. Dynamic Nature of Jobless Growth in India**

Vinoj Abraham

India had been arguably experiencing ‘jobless growth’ since the early 1990s. This period, nevertheless, has witnessed an accelerated structural change in output wherein a service-centric growth has emerged, eclipsing the agriculture-based growth. Accompanying this transformation in output, the industrial structure of employment also has undergone a transformation whereby the share of agricultural employment has gradually declined. This chapter argues that jobless growth in India could perhaps be understood better within broad contours of structural transformation. Jobless growth in a developing country is a dynamic process of job creation, destruction, relocation and labour market tightening, rather than a mere stagnation of employment growth. Using NSSO data and KLEMS database from 1993–94 to 2011–12, evidence is provided towards inter-sectoral growth differences owing to structural transformation and withdrawal of surplus labour owing to transformation, along with capital labour substitution as the underlying factors that manifest as jobless growth in India.

Status: Published in an edited volume by Shyam Sundar, *Globalization, Labour Market Institutions, Processes and Policies in India: Essays in Honour of Lalit K. Deshpande*, Palgrave Macmillan.

#### **Ongoing Studies**

#### **56. Affirmative Action and Jobs in India**

Thiagu Ranganathan and Tirtha Chatterjee

This paper will explore the impact of affirmative action on jobs in India for the scheduled castes, scheduled tribes, and other backward castes. The project will use impact





evaluation methods to analyse the impact of the interventions on employment, who benefitted, and who lost from affirmative action policies in India. We will use the Indian Human Development Survey (IHDS) data collected in 2011-12. The preliminary findings of one of the papers can be summarised below:

This paper analyses representation of various social groups in regular jobs provided by the government and the private sector. We find that there is severe under-representation of backward social groups in private sector regular jobs and high representation of unreserved categories in the same. In case of regular jobs in government sector, the unreserved category is highly over-represented. The difference in representation of unreserved category in government sector and private sector regular jobs is not significant indicating that there is potentially no negative effects of reservation on the representation of these groups in government jobs. We also see that there is some improvement in representation of STs and SCs on government sector as compared to private sector. This indicates possibly some positive effects of affirmative action on representation of these groups in government sector regular jobs. The under-representation of OBCs in both private sector and government sector regular jobs is an area of concern. We also find that the under-representation is higher in government sector indicating possible negative effects of affirmative action policies on representation of these groups in government jobs.

Status: New Initiative (Expected date of completion: May 2020)

#### **New Initiatives**

### **57. Gender Diversity and Firm Performance in India**

Ritika Jain

The current paper examines the effect of gender diversity on firm performance in India. The paper is still a work in progress.

## **(h) MACROECONOMIC PERFORMANCE**

### **Completed Studies**

### **58. Union, Efficiency of Labour and Endogenous Growth**

Chandril Bhattacharyya and Manash Ranjan Gupta (ISI, Kolkata)

This paper develops a simple endogenous growth model with a special focus on the 'Efficiency Wage Hypothesis' and on the government's role in human capital accumulation. We incorporate these two channels due to their importance in affecting efficiency of workers. Governments are found to spent a huge amount for skill formation. On the other hand, according to the 'Efficiency Wage Hypothesis', workers' efficiency is also affected by the higher wage rate, which is a characteristics of unionised labour markets. In this model, we analyse the effect of unionisation on the economic growth rate as well as on the optimum tax rate to finance public education when the educational expenditure is financed by taxation on labour income. Unionisation is defined as an exogenous increase in the relative bargaining power of the labour union. We extend the Chang et al. (2007) paper by the introduction of above mentioned two features. We first use the 'Efficient Bargaining' model of McDonald and Solow (1981) to solve the negotiation problem between the employers' association and the labour union and derive various results. To check the robustness of our findings, we further use the 'Right to Manage' model of Nickell and Andrews (1983) to model the negotiation process. Due to the incorporation of the 'Efficiency Wage Hypothesis' and the government's role in human capital accumulation, our main findings are different from that obtained in the Chang et al. (2007) paper, and, most of them are absent in the existing theoretical literature. First, for a given tax rate on labour income, irrespective of the orientation of the labour union, unionisation lowers the number of employed workers; but due to the hike in the wage rate, raises workers' effort level in the presence of 'Efficiency Wage Hypothesis'. Employment also varies inversely with labour tax rate and unemployment benefit. However, when the government



imposes the growth rate maximising labour income tax rate, then the number of employed workers becomes independent of the labour union's bargaining power, labour income tax rate as well as of the amount of unemployment benefit. The employment level corresponding to the growth maximising tax rate varies inversely with the elasticity of efficiency with respect to human capital. Secondly, this growth rate maximising tax rate varies positively with the elasticity of worker's efficiency with respect to human capital as well as with the budget share of investment in human capital accumulation; and, on the other hand, varies inversely with the degree of unionisation in the labour market. Thirdly, the growth rate maximising tax rate is different from the corresponding welfare maximising tax rate; and the welfare effect of unionisation is also different from the growth effect of unionisation. Lastly, the growth effect of unionisation is independent of the orientation of the labour union; and it depends on the effect of unionisation on workers' efficiency, which consists of a positive effort effect and an ambiguous human capital accumulation effect. All these results are independent of the choice of the bargaining model. In the case of 'Efficient Bargaining' ('Right to Manage') model, a higher value of the elasticity of worker's efficiency with respect to the wage premium than the value of that elasticity with respect to human capital is a sufficient but not a necessary (both necessary and sufficient) condition to ensure a positive growth effect of unionisation. This paper is an improvisation of Chang et al. (2007) paper not only due to the incorporation of more features but also in the ground of matching with the empirical evidences regarding effect of unionisation. Another point to note is that the conventional empirical view about the effect of labour tax, unemployment benefit and unionisation on unemployment is positive; but, there also exists another set of empirical papers which show that labour market institutions interact with each other; and the effect of any institution on the unemployment depends on the rest of institutions. However, we provide an alternative theoretical explanation of why labour market institutions may show insignificant effects on unemployment. If the government's objective is to maximise economic growth rate, then it will choose tax rate such that the resulting employment will be

at a constant level; and this level is independent of labour market institutions like unionisation, labour tax rate and unemployment benefit. The result about the employment level corresponding to the growth rate maximising labour tax rate is also very interesting in the respect that it shows that the government has the power to cancel out the negative effect of some labour market institutions on the employment, and, if the motive of the government is to maximise growth rate, then it should do that.

Status: Submitted to a journal

### **59. Role of Governance and ICT Infrastructure in Tax Revenue Mobilisation: An Empirical Assessment for India**

Hrushikesh Mallick

The study attempts to empirically understand the role of Information and Communication Technology (ICT) infrastructure and governance quality in direct and indirect tax revenues mobilisation for the combined governments of Centre, States and Union Territories of India during the post-liberalisation period of 1990-91 to 2017-18. The findings surprisingly reveal that ICT infrastructures and governance quality have no significant positive effect on the overall tax revenue collections. This contrary outcome could be possible when there is greater scope for tax payers to easily escape out of the tax net by carrying out most of their transactions outside the ICT system or without relying on the use of ICT infrastructure and leaving no trace behind.

Status: CDS Working Paper No. 491.

### **60. Do Growth-Promoting Factors Also Affect Income Inequality? An Empirical Evidence from the Indian States**

Hrushikesh Mallick and Amit Kumar Nandan (Doctoral Scholar)

The study examines the role of enforcement of property rights, human capital formation, the efficiency of different components of various state governments' development expenditures on their economic growth and interstate income inequality. It finds that enforcement of property



rights, human capital formation, government expenditures on economic services and health & education have positive effects on economic growth together with private investment in rural areas. The interstate differences in provisioning of government economic services are found to be the leading factor in interstate divergence in incomes. These findings can serve as vital technical inputs for formulating economic policy in India; particularly in achieving faster economic growth and mitigating regional income inequality.

Status: Aiming for a journal publication

### **61. Does Gender Equality Matter for Regional Growth and Income Inequality? An Empirical Analysis for the Indian States**

Amit Nandan (Doctoral Scholar) and Hrushikesh Mallick

This study aims to address two key research issues: (i) whether gender equality promotes economic growth across Indian states and (ii) whether interstate differences in gender equality can explain per capita income disparities among the Indian states. Controlling for the relevant key factors such as components of government developmental expenditures, private investment, human capital formation and institutional quality in a regional growth model, our empirical findings confirm that gender equality leads to economic growth and that interstate differences in gender equality lead to disparities in per capita income among the Indian states.

Status: Journal of International Development

#### **Ongoing Studies**

### **62. Understanding the Role of Climate Change, Institutional Credits and Public Sector Investment on Agricultural Productivity in India**

Hrushikesh Mallick

Considering a broad set of determinants such as climatic factors (rainfall and temperature), institutional credit to agriculture, gross capital formation by private and public

sectors and domestic demand sources along with other inputs used in agricultural production, it examines whether those influence agricultural productivity in India during 1970-71 to 2017-18. From preliminary investigations, it finds that rainfall as a climatic factor positively and significantly influences agricultural productivity, while average temperature has no significant influence. It is the long-term than short-term institutional credit which plays significant role in increasing agricultural productivity. Examining whether it is private or public sector investment that matters, it finds that it is the public sector investment which matters in potentially raising agricultural productivity in India, justifying significant scope for tapping the productivity potential of the Indian agriculture by stepping up of public sector investment and deploying greater long-term institutional credit to agriculture. These key findings would prove to be potentially useful for agricultural policy of India for achieving sustainable growth targets.

Status: Ongoing

### **63. An Assessment of the Effectiveness of Total Foreign Aid Inflows vs. Foreign Energy Aid inflows for Environmental Quality and Climate Mitigation: A Long Run Analysis for India**

Hrushikesh Mallick, Mantu Kumar Mahalik (Indian Institute of Technology Kharagpur), Muhammed Ashiq V (Indian Institute of Technology Kharagpur), & Monika Gupta (Jain Institute of Management and Research, Mumbai)

This paper empirically examines the relative effectiveness of total foreign aid and foreign energy aid inflows on CO<sub>2</sub> emissions in India over the period of 1978-2014 by endogenising economic growth, energy consumption, FDI and remittances inflows as additional factors in a carbon emission function. The results emanating from the ARDL bounds test provides evidence of a significant long-run relationship among the variables. Interestingly, it is observed that the foreign aid inflows and energy consumption significantly reduce CO<sub>2</sub> emissions, whereas foreign energy aid inflows, economic growth, FDI and remittances inflows



induce it. From a climate mitigation policy perspective, the results suggest that the Indian government should focus more on promoting inflow of total foreign aid than foreign energy aid to improve environmental quality. Given the potentiality of total foreign aid in driving the quality of the environment in India, it may be argued that much more utilization of total foreign aid needs to be directed towards investment on clean/smart energy projects for an emerging economy like India.

Status: New Initiative

### **Completed Research Projects**

#### **64. Migration, Remittances and Dutch Disease: Evidence from Kerala Economy**

M. Parameswaran

*Sponsor:* Earlier version was done with funding support from Kerala and World Economy project.

This paper examines the impact of remittances and migration on the structure and growth of Kerala economy using the framework of Dutch disease put forward by Corden and Neary (1982). The paper not only provides empirical evidence on the impact of remittances on economic growth, but also gives insights into the intermediate/transmission mechanism of the phenomena.

The paper examines the impact of remittances on the growth of tradeable and non-tradeable sectors of the economy, relative price of non-tradeable services, and real wage in agriculture. It shows that remittances have significant positive effect on the growth of non-tradeable services and significant negative effect on tradeable sector. The paper also finds that remittances and migration contributed to increase the relative price of non-tradeable services. Both these effects must have contributed to the expansion of this sector. It is also found that remittances and migration have a positive effect on the real wage of even agricultural workers.

Status: Under revision for journal publication

### **New Initiatives**

#### **65. Quality of Governance, Federal transfers and Economic Development**

Hrushikesh Mallick

The study would attempt to establish whether quality of governance matters along with federal transfers for levelling up the economic development in the Indian states.

### **(i) MIGRATION**

#### **Completed Studies**

#### **66. Handbook on Internal Migration in India**

S. Irudaya Rajan and Sumeetha M (Christ, Bangalore)

Internal migration is a massive phenomenon. Globally, there is more internal migration than international migration. In India, between 2001 and 2011, the number of internal migrants rose from 314 million to 454 million. Increasing urbanization due to migration leads to planning and policy making with regard to internal migration. The interplay between migration and urbanization poses both challenges and opportunities for the concerned migrants, communities, cities and governments. Post-liberal India economy has seen an uneven growth of cities and urban areas. The development process has been skewed in India, attracting labour from underdeveloped regions to production hubs. The developed areas are hubs of capital growth and expansive activities that attract and /or forcibly pull labour force from underdeveloped areas thereby creating the phenomenon of migration, urbanization, growth of service sector, infrastructure development and growth of informal employment require abundant cheap labour in the cities and migrants are the only source. It has observed that flow of migrant workers from the north-eastern parts of India to the far south. This unabated flow of migrant workers has not been adequately captured by the Census or National Sample Surveys as they often tend to ignore short-term or circular migrants. Although policies for migrant workers have featured in plan documents of some states, for most states, migrant workers seem to be non-existent. Migration changes



the socio-cultural dynamics of a region and offers a new set of issues to be explored. In the course of labour and capital relationship, the labour undergoes marginalization, fragmentation, violence, vulnerabilities, lack of adequate access to social services, various levels of exploitation, exclusion and lack of bargaining power. The insecure condition of poor urban migrants is immensely influenced by the social structure and production relations at the source areas. The remittances through migration not only fuel the migration but also act as an important source of survival for workers at the places of origin. As labour markets in the country are transforming themselves, with more and more workers joining the informal labour force, the pattern and nature of migration need to be scrutinized to comprehend the development process itself. This handbook is an attempt in this direction, and it tries to bring a host of factors for migration analysis, questioning the undercurrents of the present development process. The idea of this book was developed at the international seminar on migration, care economy and development held at the Centre for Development Studies, Thiruvananthapuram during 17-19 September 2014. This book is analysed in an interdisciplinary perspective. The chapters in this handbook cover almost all states in India and comprehensively deal with internal migration.

The Handbook has nine sections with fifty six papers on various facets of internal migration in India. The first section includes one chapter, deals with migrant odysseys; the second section includes six chapters, talks about macroeconomic perspectives of migration. As per this section there are three mega challenges – migration of agricultural workers seeking non-farm employment, growing urbanization and need to ensure better education and vocational training for increasing entrants into labour force. The third part has ten papers on state level perspectives in migration, in which some of the papers are on the distress driven migration from Odisha, the rescue of child migrants in Andhra Pradesh, Tamil Nadu and Karnataka. Migration and caste are discussed in the fourth part with six chapters. According to this section, the upper castes are usually the first to move

out of the villages and for longer durations and distances. Migration and gender issues have explained in the section five with seven chapters. Studies on female migration in India conclude that women migration is driven by marriage and associated reasons. Section six includes deals with five chapters on migration and urbanization. According to this section, housing and basic services for migrant construction workers in their urban work destinations continue to be inadequate for majority of both the floating migrant workers. Section seven has five papers related to migration and politics.

This section points out that internal migration in multi-ethnic countries like India marked by different levels of political commitment to social protection across regions, can also generate exclusions and adverse incorporations that are similar in some ways to that observed in the case of international migration. Section eight is a big section with nine papers about the emerging issues of internal migration. Existing migrants in any destination will influence the pattern and volume of migration to that destination. The last section with seven papers explained about the migration policy in India. There is no comprehensive migration policy for India and the section calls for an integrated rights-based policy approach as India embarks upon the 2030 sustainable development goals (SDGs). Fresh perspectives on internal migration will help policy makers, researchers, academicians and students of development studies to map and understand the changes in the Indian labour market as a consequence of internal migration.

Status: Sage Publishers (Published)

## **67. Asianization of Migrant Workers in the Gulf Countries**

S. Irudaya Rajan and Ginu Zachariah Oommen (Kerala Public Service Commission)

This book is an edited volume on Gulf migration with contributors from participant scholars as well as other scholars of the International Conference on Gulf Migration held at the Nehru Memorial Museum and Library, New Delhi.





The Asian migration to GCC countries is predominantly a male phenomenon. The relatively limited participation of women as a migrating workforce is attributed largely to the prevalence of patriarchy in the sending countries. Though there is a worldwide demand for labour force from the Asian countries, the risks involved in the process are very high and alarming. The major challenges before the migrant community are debt, racism and xenophobia, high migration costs, corruption, deceit, fraudulent recruiting agencies, sexual and physical harassment, hazardous working conditions and non-payment of wages, poor medical facilities, absence of grievance redressal mechanism and basic labour rights. In this context it is highly imperative that both sending and receiving countries have to formulate policies and legislations to ensure equitable and vigorous working atmosphere. Due to the heavy outflow migration, few Asian countries like India, Sri Lanka, Bangladesh and Philippines have formed separate ministries/departments to administer the overseas labour migration and diaspora. Sri Lanka and Philippines have the most outstanding policies to monitor and safeguard the right of overseas migrant workers.

However, the lack of a unified voice and the non-sensitive attitudes of sending countries have intensified the socio-economic uncertainties of migrant workers. Though remittances from GCC countries constitute the major portion of the external financial flows for recipient countries, the migrant workers have not been developed as core component in the strategic discerning of sending governments. The bilateral agreements of labour rights and minimum wages are quite inadequate to safeguard the social insecurity and gross human rights violations in the host setting. Therefore, both sending and receiving countries should approach the multifaceted concerns of Asian migrants more holistically and sensitively. In addition, issues concerning women workers should be dealt with utmost care and policies should be formulated without curtailing the basic rights and mobility of migrant workers, particularly women migrant workers. This book intends to explore the multifaceted nuances of the 'Asia-Gulf migratory corridor'

and also would try to unearth the future prospects and strategic implications. The book examines remittance behaviour, changing gender roles of immigrants, the social-spatial mobility, migrant policies, human rights, sense of belonging and the identity, perception and the interaction between nationals and non-nationals and so on.

One chapter explores three periods of Gulf migration and the reasons for the emergence of Gulf countries as a lucrative destination for labour migration. The authors also focus on the contemporary labour market in Gulf region and highlight the opportunities and challenges for the future. They argue that the large oil wealth, unavailability of labour in the local population, high labour compensation and the political stability are some of the major reasons for the large inflow of migrants to the GCC countries. The authors observe shifting of the labour market in favour of Asian countries by the 1990s and also the large flow of remittances towards South Asia and Southeast Asia. The large influx of expatriates has highly altered the demographic composition of Gulf region and the ruling establishment is quite concerned about this alteration. The authors predict that the uninterrupted flow of foreign migrant workers are likely to continue regardless of the anti-immigrant measures in the Gulf region.

One chapter argues that migration policies of the host countries have invariably deprived the basic human rights of migrant workers. In the GCC, the policy making and management of migration has evolved within each state's national context, based on their national interests and needs. The author pointed that the ruling establishments are aware of the shortfalls of the Kafala system and have been systematically trying to devise mechanisms to rectify the loopholes, but it has not yielded anticipated results. Another article provides non-citizenry aspects of popular politics which was reflected in the general strikes among the South Asian migrant workers in Dubai in 2006. This paper highlights the idea of popular politics among the migrant workers in the Gulf countries through a set of informal expressions. The socio-political dynamics of Kerala is directly transmitted among the expatriate workers in the Gulf as well and the





popularity of new social movements among the migrant workers shows the intrinsic connection between the developments in home and host societies. Another article reflects on the implication of non-hegemonic form of human rights interventions to address human rights violations faced by low-skilled, under paid expatriate Indian workers in the Gulf Cooperation Council (GCC) countries.

The authors of another article attempt to explore the multifaceted migratory experiences of low-income workers in Qatar based on an extensive and in-depth survey. The authors argue that the low-income labour force in Qatar remains a temporary and transnational cyclical labour force. The authors finally reiterate that the misinformation, deception and unrealistic expectations continue to play an unfathomable role in the migratory process. The author of another chapter examines the contemporary socio-economic and demographic trends of Indonesia and argues that the slowdown in migration is due to the range of alternative opportunities. Unlike other Southeast Asian countries, Indonesia was never involved directly in the recruiting process of Gulf migrants until the early 1980s. The startling Asian crisis in the late 1990s and lack of opportunities have steadfastly accelerated the flow of migrants to the Gulf region in an unprecedented manner.

The author of another chapter discusses the complex reasons and context of the Bangladeshi local fishermen for opting hazardous and risky professions in Oman. The author reiterates that majority of the fishermen migrants in Oman have failed miserably to succeed economically in spite of their long duration of stay in Oman and ironically most of them have ended up in jail or debt-trapped. The authors of another chapter focus on the uneven geographical pattern of migration to the Gulf from Pakistan and highlight the regional disparities in the utilization of remittance and also narrate its impact. The authors opine that the higher level of poverty and underdevelopment in the poorer districts consistently coincides with the low level of overseas migration. The article pointed the preference of return migrants to shift from wage employment to self-employment which invariably helps to create jobs for non-migrants as

well in the higher migration districts. In addition, the article highlights the exemplary impact of migration in education and health sector largely in the migrant-dominated districts and alerts the lack of migration-promoting institutions in the poorer regions of the country.

The author of another chapter examines the recent trends, current situation and future outlook of labour migration from Sri Lanka to the Gulf countries. The recent acceleration of migration to the Gulf is attributed to the political turmoil in Sri Lanka. While Sri Lanka is the main source for women domestic workers, the recent trend shows an overall decline in the flow of women migrant workers to the Gulf region from the country. The author is quite cautioned about the volatile situation in the West Asian region and urges the government to formulate contingency plan to meet the unexpected repercussions in the future.

Status: Springer (Published)

## 68. Development, Environment and Migration

S. Irudaya Rajan and Debabrata Baral (Bennett University)

This edited volume contains 13 chapters in three sessions. This book brings the discourses around social justice and sustainable development back into focus by looking at India's mining sector and the state's frameworks for economic development. The chapters in this volume analyse mining practices in the mineral-rich areas of eastern India through various case studies and highlights their immense human and environmental costs.

This volume critically analyses selected mining projects in India that have resulted in large-scale displacements, impoverishment and environmental degradation. It identifies the gaps in policies, its implementations and the lack of safeguards which threaten the socio-economic and ecological ways of life and livelihood of the local communities. Based on documents, reports, interviews and field observations, this book engages with the issues surrounding the mining sector, e.g., land acquisition, land use and degradation, the politics of compensation, policies, agitation and social mobilisation, health and agriculture, livelihood



and gender. It further provides an assessment of local political economies and offers suggestive frameworks for inclusive growth in this sector.

From the policy perspective, there are safeguards guaranteed to the people impacted by these mining projects. But still the rise of aggressive social movements puts a question mark on the inclusiveness and the effectiveness of these safeguards. It is in this context that the first chapter will first outline and review various programs, policies and promises that facilitate the mining projects and even assure safeguards to the impacted people. Second, it will also provide resistances that have emerged, challenging various mining projects in India. Third, this volume reviews selected development projects, from both the macro perspective as well as through selected case studies. It aims to outline the various 'human' and 'environment' costs as well as identify the 'governance gaps' which challenge the inclusiveness of these development projects. Chapters selected in the volume are based on reviews of the local political economy and political ecology. This volume aims at providing suggestive framework for inclusive growth. This book will be of interest to students and researchers exploring the disciplines of development studies, sociology, law and governance, human ecology and economics.

Status: Routledge (Published)

### ***Ongoing Studies***

#### **69. South Asia Migration Report 2020 (Book)**

S. Irudaya Rajan

South Asia Migration Report 2020 is the third of its series which is an extension of the commitment to engage researchers and policymakers within the South Asian region to work towards an understanding of the importance of migration in shaping the region and provide policy interventions based on evidence-based approaches. The book focuses on the theme of "Exploitation, Entrepreneurship and Engagement" and consists of 11 chapters by 22 contributors. Covering a wide array of topics, the various chapters encompass several discussions on the nature of

exploitation, entrepreneurship and engagement, both within the context of the migrant's countries of destination as well as their origin. All three concepts stem from the innate relationship between migrant networks at the origin and the destinations. Any conceptualisation of the phenomenon of migration cannot exclude the study of these networks, and thus the contributions to this edition provide an invaluable glimpse into it. It includes dedicated fieldwork from India, Pakistan, Bangladesh, and Nepal; analyses the impact of South-Asia-migrant-established businesses; examines legal and legislative recourse against exploitation in destination countries; factors in how migration as a phenomenon negotiates with gender, environment, and even healthcare. India was the largest country of origin for international migrants within South Asia (17 million), followed by Bangladesh (7 million) and Pakistan (6 million) (United Nations, 2018). Of the top 10 largest countries of origin of international migrants, three are in South Asia. Over half of all migrants from India and 40 percent of all migrants from South Asia reside in the Gulf. India-United Arab Emirates (UAE) (3.5 million) and India-Saudi Arabia (2 million) are among the top global migration corridors. South Asian countries such as India, Sri Lanka, Bangladesh and Pakistan have similar patterns of international migration to the Middle East and to some developed countries. Among South Asian countries, Sri Lanka is the only country which uses international airports to capture the outflow of labour migration. In the case of India, there are 38 international airports and these are the gateways for the overseas migrants. Therefore, these airports can be equipped with the technology to capture the outflow of all types of migrants without hindering the passengers. This method captures the actual numbers rather than estimates on international migration. In the selected five countries, there are certain government agencies collecting data on the outflow of labour migration.

The most compelling challenge that presents itself, especially in the South Asian context, is the challenge of climate change and the widespread migration it induces. Numerous instances of climate-related disasters in the recent past



have precipitated people being forced to think about mitigating strategies – migration being salient one among them. Furthermore, the role of remittances and even diaspora philanthropy, as well as other voluntary efforts in development and especially in aid and rehabilitation, is important in understanding the role of migrant networks. Second, while generalised macro trends in South Asian migration are more readily available, the understanding of the migration of specific groups, and the specific contexts in which they migrate, still needs to develop in South Asia setting to capture the entire breadth of migration from the region – whether they be students, teachers, medical professionals, or many other skilled or unskilled workers migrating to newer locations all over the world. However, the lack of reliable data at a large scale remains a persistent hurdle in understanding and acting upon the various challenges presented and much more urgency to be done in the South Asian region that regard. Therefore, finally, it becomes very important for the countries in the South Asian region to come together and harmonise migration policies within a SAARC (South Asian Association for Regional Cooperation) framework, taking into notice the history as well as the future of migration outwards and within the region.

This book will be indispensable for scholars and researchers of economics, development studies, migration and diaspora studies, gender studies, labour studies, and sociology. It will also be useful to policymakers, think tanks, and government institutions working in the area.

Status: Ongoing (Expected date of completion: May 2020)

## **70. India Migration Report 2020: Kerala Model of Migration Surveys (Book)**

S. Irudaya Rajan

The India Migration Report 2020 is the eleventh edition of the annual India Migration Report, which focuses on the importance of information collected by migration surveys. Looking at studies done through data collected through the various migration surveys held in India on a number of socio-economic issues as a consequence of migration, this volume acts as a unique repository of studies and information

collected via migration surveys, highlighting the importance of collecting data on this extremely important and dynamic phenomenon. The studies presented in this edition delve on varied topics such as conspicuous consumption of remittances and their utilization, the effect of male migration on left behind women and the attitudes of male migrants within the household to a number of other socio-economic dimensions such as financial inclusion of migrants and return migration strategies as well as migration strategies during times of crises like the Kerala floods of 2018. Through the various chapters, it also highlights the twenty-year experience of the Kerala Migration Survey, which has been conducted by the Centre for Development Studies, Thiruvananthapuram and has taken place every five years since 1998 and completed eight rounds – the only migration survey in the world to do so. Additionally, it also looks at issues of migration politics and governance as well as return migration strategies of other countries to provide a roadmap for India.

It is outlined into twenty five chapters, each looking at various aspects of migration using data collected through various migration surveys. The Introductory chapter takes a look at a broad view of migration surveys around the world and in India, with a focus on the Kerala Migration Survey. The second chapter by Balasubramanyam Pattath looks at the conspicuous consumption among migrant households in Kerala and how that determines household status among the community. The next chapter uses data from the 2010 Kerala Migration Survey to determine the effect of remittances on healthcare utilisation in Kerala. Using data from the Kerala Migration Survey of 2011, the fourth chapter examines whether increased remittances have led to an accumulation of assets within migrant households in Kerala. The next three chapters consist of issues dealing with the problems of left behind women, the socio-economic dimensions of migrant households in Kerala and the reasons for remittances. Later chapters also talk about issues of re-integration and rehabilitation of return migrants, the effect of migration on the labourforce participation rate of left behind women and how international migration affects domestic attitudes towards women in Kerala.



The next chapter looks at the determinants of international migration and the choice of destination. The study finds that Individuals with a higher propensity to migrate are male, married, educated and unemployed who has a friend or relative already working outside. Chapter 12 then looks at the phenomenon of migration from Kerala to the Gulf through the lens of circulation of human and social capital in a neoliberal framework. Chapter 13 uses the data from the 2014 Kerala Migration Survey to analyse a very important social scourge in Kerala society – the scourge of alcoholism. Chapters 14 and 15 use the KMS to show how migration costs have dropped substantially, making migration an even more viable option. Chapter 16 uses the Kerala Migration Re-survey of 2009 to study the impact on remittances of macroeconomic shocks at the destination, in the aftermath of the Global Financial Crisis of 2008. The next chapter uses a literary analysis in order to highlight the human and affective experiences of Indian migrants in the Gulf. The next chapter looks into the role of migration in asset accumulation among households in Kerala. The next chapter, by S. Irudaya Rajan and Udaya S Mishra, examines the changing economic status of Kerala households over a two decade period from 1998-2018, using a novel approach of examining distributional shift based on a median marker using NSSO as well as KMS data.

Chapter 20 uses the backdrop of the Kerala floods of 2018 to explore the impact of floods on migration in a climate-vulnerable geography dependent on multiple forms of labour migration to sustain its economy. Staying with the impact of the Kerala floods on migration, Chapter 21 then presents the preliminary findings of the Kerala Flood and Migration Survey of 2019. The survey, which was held in the wake of the Kerala Floods of 2018, uses data from the Kerala Migration Survey of 2018 as a baseline and reports on the findings based on the human, physical and financial damage done by the floods and the role of migration to ameliorate those losses, tries to understand the role of remittances in re-shaping local financial arrangements. Using primary data through structured questionnaires, the study maps a range of formal and informal financial arrangements in place which

reflect the dualistic nature of India's financial system. The final three chapters focus on the policy aspect of migration, namely the politics and diplomacy behind migration, the review of the emigration management system of India and a look at re-integration policies in Indonesia which could provide a roadmap for India.

Status: Ongoing (Expected date of completion: May 2020)

### **Completed Research Projects**

#### **71. Recruitment and Migration of Indian Domestic Workers to the Middle East, Work in Freedom Programme**

Praveena Kodoth

Sponsor: ILO, New Delhi

The Middle East has been the site of some of the worst human and labour rights violations against migrant domestic workers. India is one of the major origin countries of migrant women domestic workers (MWDWs) to the Middle East but there is little research on this theme, especially with a focus on the source contexts in the country. This paper provides an analytical description of recruitment and migration of women as domestic workers from some of the key sending regions in Andhra Pradesh and Kerala, South Indian states with a history of women's migration to the Middle East going back to the mid-twentieth century. A prominent feature of migration of women domestic workers from India is its spatial clustering even within South India to specific regions that have long-standing and rich connections with the Middle East.

The major part of the research for this paper was conducted through fieldwork in the districts of East Godavari and YSR Kadapa (henceforth Kadapa) in AP and Thiruvananthapuram (henceforth Trivandrum) and Malappuram in Kerala, known to have spatial concentrations of women migrants. The paper draws on a sample survey of migrant domestic workers conducted in these districts in 2013 comprising only workers who had returned in 2008 or later, irrespective of when they had migrated. Successive changes in emigration rules



since 2014 led to an unprecedented fall in regular migration of migrant domestic workers. To understand the implications of these regulatory changes, interviews were conducted between 2015 and 2018 with workers who had returned from employment due to abuse. Subsequently, more structured fieldwork was conducted in East Godavari and three districts of Kerala between May and June 2019 to understand how women and other stakeholders were responding to a ban imposed on private recruitment in August 2016.

The paper is organized around three broad questions. The first question asks—who are the women who migrate overseas as domestic workers? In exploring this question, the connections between the source and destination contexts have been highlighted to historicize migration from specific regional clusters. Following this, the demographic and socio-economic characteristics of women migrants have been examined along with the migration trajectories of women to arrive at a better understanding of the conditions and circumstances that shaped the migration of specific categories of women from these regions. Overseas migration from India as well as from these states has been highly male-dominated. This called for a probing of the nature of decision-making within families of women migrants to understand whether there was mutual agreement between spouses about women's migration (and support from other family members) or whether women go against the tide of social disapproval.

Analysis of survey data and qualitative material showed that there are important distinctions in the nature of decision-making in AP and Kerala and in the socio-economic and demographic character of women's migration from these states. It was also evident that the marginal benefits of migration were greater for women from AP than women from Kerala. Importantly, migrant women from Kerala were better off in terms of developmental characteristics, i.e., literacy and age at marriage, but it was more difficult for them to garner legitimacy for migration.

The second question was concerned with *how* women migrate. The discussion foregrounded the governance systems of migration at the source and destinations as well as the networks and connections that bound aspiring migrants, intermediaries and sponsors. In explaining egregious violations of labour rights in the Middle East, scholars have underlined structural factors and the limits of the origin country's policies in protecting migrant workers in the destination. In particular, they have underlined the effects of the Kafala system of sponsorship and recruitment in the Middle East. However, there has been scarcely any analysis of the impact of the governance framework of recruitment in India on the extent and nature of migration of 'low-skilled' women from the country. Migration in this stream has been shaped importantly by two factors, one, long-term state protectionism, which had generated disincentives and spawned irregular practices and two, the varied social networks and the rich connections between people in the source regions and the destination, which have fostered migration.

India's policy framework pushed intermediation into a twilight zone characterized by irregularities, complex maneuvering and manipulations by unauthorized actors in association with rent-seeking government officials. Irregular practices have facilitated overseas journeys when women did not qualify for emigration clearance. However, these practices may have gained wide usage because they appear to be simpler and more easy to access than the Indian government's regular procedures.

Migration intermediaries are believed to be the principal agents of the exploitation of women migrants. While this perception has influenced policymaking, it is based on a failure to recognize the diversity and range of migration intermediaries. The analysis in the paper suggests that this recognition may be key to understanding women's continued resort to private recruiters. Besides, women aspirants and migration intermediaries have shared interests which have generated scope for negotiation on both sides. But where migrant women are excessively dependent on intermediaries, it has exacerbated their vulnerability and strengthened the possibility of severe exploitation.





The third question reckons with the countries that women domestic workers migrated to and highlights the patterns of migration between source contexts and destinations. Indian women domestic workers had worked in most Middle Eastern countries with Kuwait being the most prominent. At present, Indian women are second only to Filipinas in terms of numerical presence in Kuwait. This is despite the fact that the Philippines has pursued a promotional policy while the Indian state has sought actively to discourage women's migration. The level of flows of Indian domestic workers to Kuwait underscores the strength of informal ties nurtured by migrant workers and migration intermediaries in the source contexts with sponsors and recruitment agencies in Kuwait.

Status: Is in the process of being brought out as a working paper

## 72. Locating Migration in Imagined Futures

S. Irudaya Rajan

Sponsor: REALM

This study was funded by Research and Empirical Analysis of Labour Migration (REALM) of Columbia University, undertaken by Centre for Development Studies (CDS), Thiruvananthapuram, Kerala in collaboration with New York University in Abu Dhabi Corporation (NYUAD). This project is a collaboration between INCITE researchers and REALM researchers working in Mizoram, Kerala and Sri Lanka. The project has drawn a sample of 240 participants across three areas in Malappuram. The first phase of the project involved a series of 160 interviews in 80 households using tablets and recorders. The household must include a young person (between the ages of 18 and 26) who is unmarried and has not attended college. In addition, the male to female ratio in the whole sample needs to be 5:3. There were two interviews in each household – (1) the primary respondent, and (2) the parents of the primary respondent. The second phase of the study was translating and transcribing audio recordings which were collected from these selected households.

Status: Journal Articles

## Ongoing Research Projects

### 73. Should We Provide incentives for Investment Use of Remittances? A Randomized Controlled Experiment for India

S. Irudaya Rajan and Bharati Basu (Central Michigan University)

Sponsor: UAE Exchange Centre LLC

After the first round of surveying in 2016, when 2000 migrant households were surveyed, incentives to 500 households were transferred. The mid-line survey has been completed which was mainly measured the responses and attitudes towards investment of remittances. The end-line survey, which will assess changes in consumption and expenditure patterns, will start this year. It is now well known among policy makers and scholars that about 3.5 percent of world population living in countries other than their countries of birth transfer about \$450 billion to their families and friends back home. Quite a few attempts have been made to find out how these transfers are used at least in some parts of the world (like some countries of Latin America, Africa, South East and East Asia). What is surprising is that there is no analysis about the use of remittance money in the top remittance receiving countries of the world like India and China. Thus, there is a need for collecting information about the attitude of the remittance receiving households towards investment, about the factors that may have contributed towards this attitude and whether a certain type of incentive would eventually raise the investment level of these households. One way to meet this need is to have randomized controlled experiment involving remittance receiving households and their remittance sending migrant members.

NRI deposits in Kerala have crossed Rs. 1 lakh crore, soaring by more than 17 percent from Rs. 93,884 crores to Rs 1.1 lakh crore (at the end of 2014-15) in the space of just one year, according to data collected by the State Level Bankers Committee (SLBC). This includes money from all over the





world. The Reserve Bank of India (RBI) data shows that there was a little over \$115 billion in NRI accounts in India, which is about Rs. 7 lakh crore. Kerala thus accounts for roughly a sixth of all the money deposited in NRI accounts. Remittances from the Gulf region are still a key growth engine for the state, which has seen agriculture in decline till recently and negligible growth in manufacturing while neighbouring states like Tamil Nadu and Karnataka have surged ahead.

The objective of this experiment is to find out whether it is possible to boost the investment use of remittances by providing some incentives. To accomplish the objective, the experiment focused on the migration corridor between Kerala and the Gulf Area. This is one of the largest migration corridors in the world. As per the Kerala Migration Surveys conducted by the Centre for Development Studies, Kerala, India over the last 15 years (1998-2015), the proportion of Kerala emigrants in the Gulf accounted for about 90 per cent of all migrants from Kerala.

Status: Ongoing (Expected date of completion: December 2020)

## 74. Flood and Migration in Kerala

S. Irudaya Rajan

Sponsor: REALM

The study has been completed by December 2019. This study was different from all other migration surveys although the samples are taken from the Kerala Migration Survey 2018. This study aimed to measure the loss of livelihood assets due to the floods. Through this, the vulnerability of all forms of assets – physical, financial, social and human – were determined. Furthermore, this study has given an understanding of various coping and risk mitigation strategies that the households plan to employ to offset the detrimental impact of the floods – one of them being migration. This survey followed the methodology of KMS 2018 survey. The sample households are the distribution of the total households by the districts of Kerala, taken by using stratified multistage random sampling method. A subset of the total

sample from KMS 2018 was selected. From this, subset of 1200 flood affected households was selected for this survey. For this study three localities from the south and three localities from the north Kerala are selected which were affected by the floods, landslides, and heavy rains. Total sample taken for KMS 2018 survey was 15000 households. There were 500 localities, each locality holds 30 households. Out of the 500 localities, 102 localities were affected by floods or landslides. Flooding could be due to incessant rains, flooding of rivers and embankments or a combination of both. A total of 1200 households were selected for the study.

Main objectives of the study are, to understand the impact of recent floods on migration; to study the effect on livelihood assets particularly physical, financial, social and human assets; to understand the gender dimensions of migration in the flood affected areas. Also to understand the differentiated impact of the floods on children and the elderly; to understand disaster risk minimization and loss mitigation strategies that will be employed by the affected households; to make policy recommendations that improve disaster management systems and processes.

Scope and Research Questions are, What happened to the households whose members were away at the time of floods at least one member away, husband or wife away, son or daughter away, elderly alone. (Intensity of loss); What were the extend of losses due to floods (damage to houses, electronic goods, durables)? Impact of flood and losses on migration. Will migration increase? Will it become diversified?; Advantages and disadvantages of being a migrant family during and after the floods?

The study compared before and after flood situation in the selected areas which was a unique feature. This is the first study where households are surveyed preceding the disaster as well as after. The 2018 Kerala floods caused widespread damage to lives and property. The floods caused a considerable depletion in assets- especially physical assets and access to livelihoods, which in turn caused major disruptions in financial assets. The floods disrupted work



and reduced working days significantly and within sectors left a number of people engaged in a variety of economic activities vulnerable to shocks caused by the flooding—especially those engaged as labourers in the non-agricultural sector, those employed in the private sector and self-employed people. A number of agricultural workers and NREGA workers also predictably suffered.

This was compounded by a number of households also suffering losses to land and property, particularly agricultural land, which caused a further depletion of long-term assets, causing a strain on the physical strain of the household. Those who were engaged in businesses also suffered with a number of small-scale businesses running at least average to total losses. This caused many households to go into debts and thereby causing depletion in financial assets.

When it came to health, a sizable number of individuals suffered moderate to major illnesses as a result of the flood. The illnesses affected people in the older age categories, however, with many families having to incur health and the resultant financial strains as a result, exacerbated by the depletion in their livelihoods and financial capabilities already caused by the floods. This, eventually, leads to the question of whether the floods led to a migration of people outwards or not. The present data indicates that there was an incidence of people migrating abroad to replenish individual or household assets and mitigate the damage caused by the floods. Among those who didn't intend on migrating, quite a few mentioned that it was because there was already a member in the household who was abroad, thereby indicating the social capital that these households could rely upon as a safety net in the terms of crisis.

Status: Ongoing (Expected date of completion: December 2020)

## **75. The Prospects and Impact of Migration at the Local Level through a Village Census**

Vinoj Abraham, Praveena Kodoth, M. Parameswaran, Ritika Jain  
*Sponsor:* Kerala in the World Economy Programme, CDS  
 Overseas labour migration of Keralites and the remittances that have flowed into Kerala as a consequence is now

recognised as having had a strong impact on the state's economy and society. The migration of Keralites witnessed an upward swing with the Gulf boom in the 1970s, lined to the several fold increase in oil prices. It is estimated that in 2014 around 24 lakhs Keralites were working abroad, which is around 7 per cent of the state's population and more than two times the workers in the organised sector in Kerala. It is also estimated that remittances the state receives comes to around 20 percent of its Net State Domestic Product (NSDP). The flow of money, goods and ideas as well as the building of social capital are known to have had a transformative effect on the local economy and society especially in areas of large scale migration and to be differentiated in terms of communities (religion and caste), gender and class (education and skill levels of migrants) (Osella and Osella, Kurien, Sivanandan, PRG, Sreerup, 2017, Luke, 2018). At present, Kerala is also witnessing significant changes in migration. It is no longer the largest sending state of migrants and migration from Kerala is no longer growing even as migrants are returning to the state in fairly large numbers. Another characteristic feature of Kerala's economy today is large scale in-migration of labour into the construction and agricultural sectors as well as into semi skilled (technically trained) occupations from the northern and eastern states.

With more than half a century of migration to the Middle East and more than quarter of 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 Kadakavoor in Thiruvananthapuram district for this proposed study. Kadakavoor 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.

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

Praveena Kodoth and Vinoj Abraham

*Sponsor:* UNICEF

This proposal seeks to estimate the extent of child migrants in the South Indian states of Tamil Nadu and Kerala, probe the circumstances in which they migrate and identify issues of importance to social policy that arise from child migration. Within India, children migrate in diverse circumstances for reasons that vary from accompanying their parents/guardians to migrating on their own to pursue education, take up employment or because of marriage. There is a difference between 'independent' child migrants and 'dependent' child migrants. At destination, independent child migrants may end up with choices that are harsh and sometimes hostile, while dependent child migrants are primarily guided by the socio-economic status of the household. Many poor children migrate with family within a state boundary or across the states mainly for livelihood. Most of the time, these children are pushed to work.<sup>2</sup> Further, depending on the cycle of labour migration or the length of stay of families in the destination, there are important variations in the position of children who accompany low paid migrant workers. Children who migrate due to push factors like economic insecurity are more likely than others to be subject to deprivation irrespective of whether they move as part of families or independently. Deprivation in childhood has far reaching consequences on early childhood development and other aspects of well being

in later life affecting the chances of children transitioning into capable adults. At present, however, we do not have detailed and disaggregated information about the migration of children and adolescents. We also do not have a comprehensive understanding of existing public finance and social policy intervention by State governments in dealing with the challenges faced by migrant children. The objective of this study is to generate evidence on nature of child migration and their socio-economic vulnerabilities.

The framework of study is based on the premise that "a child is a child, independent of his or her migratory status." It has also been observed that limited opportunities for families to move together can force the children to stay back unattended in the State of origin. At the same time, if they move with the family to the State of destination, there is no guarantee that it would result in an improvement in their well being. In other words, extreme poverty, and socio economic distress push families to migrate and children suffer disproportionate burden of it. We do not have a coherent policy framework to address the issue of migration of children in India and thus there is a need to examine in detail the impact of migration on children. The objective of this study is to fill this critical gap in policy focusing on children.

There are a number of reasons why secondary data is inadequate for a comprehensive and nuanced analysis of child and adolescent migration. First, enumeration / estimation of child migration from the Census and other surveys do not capture short term and seasonal migration. Two, child migrants engaged in work may be subject to under-enumeration in a Census or in large scale surveys because of fears that it could attract punitive measures. Three, secondary data does not tell us about migrant children's access to education, health, nutrition and other public services including child protection. It is therefore imperative to generate a more robust information base on the migration of children and adolescents in order to identify core areas

2. We need only to compare the conditions of children who are trafficked with those who accompany short term, seasonal or circular migrant parents or other adults working in unprotected and low paid jobs in brick kilns, construction or quarrying and children who move along with parents who have protected jobs.



of policy intervention to address the challenges and vulnerabilities faced by child migrants.

Status: Ongoing

### **New Initiatives**

## **77. Study on Evidence Generation on Child Migration in TN and Kerala**

Vinoj Abraham and Praveena Kodoth

*Sponsor:* UNICEF India

The study seeks to estimate the extent of child migrants in the south Indian states of Tamil Nadu and Kerala, probe the circumstances in which they migrate and identify issues of importance of social policy that arise from child migration.

### **(j) PLANTATION CROPS**

#### **Ongoing Research Projects**

## **78. Collective Action among Small Tea Growers (STG)**

Thiagu Ranganathan, Vinoj Abraham and Tirtha Chatterjee

*Sponsor:* National Research Programme on Plantation Development (NRPPD)

The specific objectives of the study are as follows:

1. Feasibility, viability, and sustainability of SHGs in STGs
2. Profitability of tea production
3. Access to credit
4. Accessibility of training and extension and types of training and extension services and
5. Labour market challenges

1. Feasibility, viability, and sustainability of SHGs in STGs

The study will explore the various business models adopted by different SHGs in the study region. We will analyse the operations (the way accounts are handled, the way inputs are procured, the manner in which output is aggregated,

etc.), governance (the way in which they select the governing members, the way meetings are conducted, the frequency of meetings, etc.), and finances (the business model, the revenues in the year, the expenses in the years of operation, etc.) of the various SHGs. These aspects will help us understand the viability of the existing SHGs and address the concerns related to feasibility of forming new SHGs in the study region.

### **2. Profitability of tea production**

The study will explore the revenue, expenditure, profits, and productivity of STGs in the region. We will compare these parameters for STGs organised as SHGs, those organised as cooperatives, and unorganised STGs. We expect the differences in profitability to come from various aspects and we will explore these aspects in detail. We will particularly explore the current and potential role of credit, training and extension, and labour in improving the profitability of tea production by SHGs.

### **3. Access to credit**

SHGs are typically formed to address the issues of financial inclusion. One of the objectives of SHG formation in STGs was also to provide easier access to credit. Our study will perform a comparative analysis of various sources of credit, the rate of interest, and the timely availability of credit among the SHG members, non-members, and other collectives.

### **4. Accessibility of training and extension and types of training and extension services**

One of the important challenges facing tea growers is the lack of training and extension services. The regular training and demonstrations carried out by Krishi Vikas Kendra (KVK) earlier run by United Planters' Association of Southern India (Upasi) have been closed in many places<sup>3</sup>. This means that there is likely to be a need for appropriate training and extension services. This is important more from the cost reduction perspective and also from perspective of producing high quality tea. Our study analyse the current training

3. <https://www.thehindubusinessline.com/economy/agri-business/small-tea-growers-body-begins-survey-for-trinitea/article26819260.ece>



programmes available to the STGs and look into the nature of training programmes demanded by the STGs. These training requirements might vary for SHGs, non-members, and members of other collectives. Our study will explore these requirements.

#### 5. Labour market challenges

The low wage rates to labourers and the crisis in the sector has meant that labour has moved away from tea sector into other casual labour activities which provide better income for them. This migration of labourers to casual labour like textiles, shops, restaurants, etc., in the plain has meant lack of labour availability and an increase in wages that would make tea production less profitable for the STGs<sup>4</sup>. This is critical as the wage costs account for 65% of total cost of tea production<sup>5</sup>. Our study will explore how the different STGs (those organised as SHGs, unorganised, and those organised as other collectives) are handling the labour market challenges.

Status: Ongoing (Expected date of completion: June 2020)

### 79. Performance of Rubber Producer Societies in Rubber

Vinoj Abraham and Mithesh Madhavan (Research Associate, NRPPD)

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 to identify what are the factors that has led to the slowdown of the RPS activities. Further, it would also suggest possibility of revival of the RPSs

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

### 80. An Assessment of the Impact of Self Help Groups on Small Tea Growers

Vinoj Abraham, Thiagu Ranganathan and Tirtha Chatterjee

Sponsor: NRPPD

Tea growers in India have been facing various challenges in the recent years. The reduction in consumption of tea, stagnant tea prices in the last 7 years, and increasing costs have meant that there has been enormous pressure on profitability of tea growers. The small tea growers (STGs), who account for around 47% of tea production in the country, have also been facing the wrath of this dismal situation along with the tea estates. In this context, various modes of collectivisation of tea growers are likely to reduce vulnerability of the tea growers. Organising the small tea growers in self-help groups (SHGs) was a step in this direction and the tea board has actively played a role in formation of these SHGs since 2013. Given that the SHGs of small tea growers have been in existence for a considerable amount of time, the NRPPD will analyse the impact of the SHGs on profitability of tea production by the small tea growers. Given this background, the current research envisages a study that focuses on feasibility and viability of SHGs and performs a comparative analysis of STGs who are unorganised, organised as collectives (ex. as those through INDCO), and those organised as SHGs. The specific objectives of the study are

4. <https://www.thehindubusinessline.com/economy/agri-business/small-tea-growers-body-begins-survey-for-trinitea/article26819260.ece>

5. <https://www.thehindubusinessline.com/economy/agri-business/rising-cost-of-production-spoils-the-tea-party/article28762419.ece>





as follows: Feasibility, viability, and sustainability of SHGs in STGs; Channels through which SHGs influence STGs (input, processing, grading etc); Profitability of tea production; Access to credit; Accessibility of training and extension and types of training and extension services and; Labour market challenges.

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

### **81. 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 be completed by March 2020, but has to be extended due to the COVID pandemic.

### **82. Feasibility of e-auction in Rubber**

Vinoj Abraham, Ritika Jain and Thiagu Ranganathan

*Sponsor:* NRPPD

The government of India through its various boards and agencies have been actively pursuing to introduce e-auction in agricultural commodities. The primary goal of introducing e-auction was to enhance better price discovery for the agricultural commodities. As per available information for most agricultural commodities the price realisation of the farmer





at the farm gate was only 65 percent of the Free On Board (FOB)<sup>6</sup> price of the consumer. The remaining 35 % were taken by intermediaries, such as dealers, stockists and aggregators whose profit is the leverage in the market. Between the producer and the final consumer of a commodity there may be different scales of intermediation depending on the size, structure and location of the final consumption market. Intermediaries are known to enter into market relations with the farmers who would be forced to hedge their product at lower prices against loans and advances from the intermediaries. Also intermediaries try to control prices of the non-perishable agricultural goods through hoarding. Also, because of the poor bargaining power of the sellers and lack of information of the premium on quality, often sellers are duped into selling cheap to the intermediaries. Given these issues relating to intermediaries the government had been trying to organise agricultural marketing through regulated markets to reduce the stronghold of intermediaries in the market. Regulated markets were introduced where commissions were standardised, grading was standardised and weights and measures were standardised. Traders, dealers and commission agents were to have licence issued by the government. However the regulated markets remained by and large unsuccessful due to rent seeking and corruption. Institutional reorganisation to 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.

## (k) POLITICS AND DEVELOPMENT

### *Completed Studies*

#### **83. Between Prohibition of Political Activity Capture of Political Space: The Predicament of Student Politics in Kerala**

Praveena Kodoth

A Division Bench of the Kerala High Court held on May 26, 2003, that educational institutions may prohibit political activities on their campuses belying the expectation that higher education is a key site of political education, where students learn to participate in the formal processes of representing their interests through associations and democratically elected student unions. Notably, in the decade since the judgment the social environment in Kerala has turned perceptibly hostile to student politics. But if the judgment achieved a closing of ranks among rival student organizations, it failed to spur any meaningful debate on the nature of associational freedom that exists on college campuses, a debate that could help frame the predicament of student politics in Kerala. In a small way, it is to this task that the author turns here by seeking to unravel the implications for associational freedom on campuses of rival tendencies - *prohibition* of political space by college managements, bolstered by the judgment, and *capture* of politics by student organizations that use dominance to eliminate counter mobilization by students. In both, order

6. 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.



is achieved through surveillance, by producing a sense in the student body that it is constantly being watched. Disciplinary power is used to curb practices that are believed to be in excess of the gender norm and to intervene in the intimate details of everyday life. The scenarios of prohibition and capture are not representative of politics in arts and science colleges in Kerala but they are not *aberrations* either. The author sees them as expressions of the possibilities within the system because even where they are not powerful enough, private managements aspire to eliminate student political activities and student organizations seek to capture political space.

Status: Chapter in Suresh Babu (ed.) *Education and the public sphere: Exploring the structures of mediation in post colonial India*, London: Routledge, 2019

#### **84. Labour Market Corruption and Search Friction**

Rajit Biswas and Debojyoti Mazumder (Indian Institute of Management, Indore)

The present model develops a labour market with search friction. Political parties can impact the probability rate of getting a job. We compute the perfect Bayesian Nash equilibrium and show that at least one party will always have nepotism as its dominant strategy in the equilibrium. In an extension, the agents can choose their allegiance to any one of the parties.

Status : Submitted to BE Journal of Macroeconomics.

#### **85. Bribery and Firm Performance in India: A Political Economy Perspective**

Ritika Jain

This study examines how corruption affects firm performance in India using data from the World Bank Enterprise Survey for 2013-14. A set of testable hypotheses is formulated with regard to the interaction between bribery and the political environment to capture the nuances of the effect of corruption on firm performance. To overcome endogeneity between bribery and firm performance, the study employs

two-stage least squares instrumental variables estimation. The foremost finding is that bribery has significantly negative effects on firm profitability and labor productivity. This finding confirms the hypothesis that in India bribery “sands the wheels” of business. A further finding is that the negative effect of bribery on productivity is stronger in states run by right leaning parties, although there is no significant effect of party orientation on the relationship between bribery and profitability. This finding supports the hypothesis that tighter connections between business and government facilitate rent seeking that undermines productivity even as profitability is unencumbered. Finally, bribery is found to have more harmful effects on smaller and older firms than on larger and younger ones.

Status: Published in Journal of Asian Economics

#### **86. Effect of Electricity Act on Tariff Gap within the Subsidizing Sector: The Case of India**

Ritika Jain and Amit Nandan (Doctoral Scholar)

The current study examines the effect of a set of Electricity Act, adopted by India in 2003, on the price gap between two specific consumer groups-industrial and commercial. Paying a higher tariff than the other consumer groups, these two groups have been referred to as the ‘subsidizing’ groups of consumers in the Indian context. While the effect of reforms between the ‘subsidizing,’ and subsidized’ groups has received attention, research on the effect of reforms on the tariff gap within the ‘subsidizing’ sector has been under-addressed. Using data on all major states of the country spanning from 2004-2014, the study uses a graphical exposition, excerpts of policy document and panel econometric modelling technique. The study focuses on six aspects of the policy and emphasizes on adoption and implementation extent and finds that mere policy adoption has no strong effect on tariff gap. Instead, effective implementation may be beneficial in narrowing the tariff gap within the subsidizing sectors as well. Specifically, unbundling of the electricity sector into three different segments and establishment of an independent regulatory



authority in the state may lead to narrowing tariff gap if implemented effectively.

Status: Published in Energy Policy

### **87. Electricity Prices and Firms' Decisions and Outcomes: The Case of India after a Decade of the Electricity Act**

Ritika Jain and Amit Nandan (Doctoral Scholar)

The paper examines the impact of electricity tariffs on electricity consumption patterns and performance of Indian firms. The question is addressed against the backdrop of the Electricity Act in 2003 with varying degree of implementation at the state- level. The paper uses the World Bank Enterprise Survey for India in 2013-14 and builds three sets of hypotheses- first, high tariffs leads to electricity consumption pattern shift towards self-generation, the decline in total electricity used and eventually a deterioration in firm performance. Secondly, the negative effect of tariff on firm performance is more pronounced in states which haven't implemented the Electricity Act effectively. Thirdly, the effect will be stronger for firms which face relatively high tariff as compared to other consumer categories. Taking account of the endogeneity between a firm's performance outcomes and location choices, the paper uses appropriate econometric models and finds strong evidence for each of the hypotheses.

Specifically, high tariff hampers firm profitability and productivity but only in states which have not implemented Electricity Act effectively and only in groups where tariff difference between different groups is high.

Status: Submitted at Energy Economics

#### **Ongoing Studies**

### **88. Only Half Way Through? Interrogating the Status of Forest Right Act, 2006, Implementation in Kerala**

Abhilash, T

The data gathered from the states over the implementation of the historical legislation, the Forest Right Act, 2006, (FRA)

shows a dismal picture. However, the literature seems to be largely focusing upon the conservationists 'apprehension of 'land loot' after ten years of the implementation of the Act. However, the hard core conservation lobby's argument forest protection without its inhabitants involvement seems to be pervading over the policy implementation regimes in the country even after fifteen years of its [ FRA] inception. Therefore, it is essential to critically look into the conservationists arguments on the very Act since they have the potential to influence the forest policies in the country. However, it is also essential to understand the role of states were anti-adasiconservaion lobby's are relatively less foothold and the state has already declared its firm commitment to the effective implementation of the Act. Last ten year data of FRA implementation in the state shows that the state seems to knowingly or unknowingly complacent about the implementation of the Act in its true letter and spirit. And some argue that state like Kerala aimed to interpret the Act as a legal opportunity to obtain forest (department) land to fulfil the decade-old promises to redistribute land to landless adivasis in the initial phase (2006-2011) of its implementation. Much more recent analysis indicates that the Act enables state control over land and denies rights of adivasis and traditional forest dwellers. The criticism is now well known that the discourse of "Forest rights Act" reproduces paternalistic power and gives authority to regulatory agencies with interests and constraints of their own. At the same time, we are mindful that few other advocates for FRA have sought to address this very issue in their empirical work. Beginning with the tardy implementation of FRA in different state this paper will briefly look into the changing forest policies, draft forest law, 2019, role of Compensatory Afforestation and Management Fund, Act , 2016 (CAMPA, 2016) and how these new parallel structures influencing the FRA implementation in Kerala. This paper will also critically look into the question of, "why the FRA implementation in Kerala is limited to few communities?"

Status: Ongoing (Expected date of completion August 2020)



## 89. Path Dependency: A Marxist Interpretation

N. Vijayamohanan Pillai

Despite an opaque veil of ambiguity, path dependence is generally taken to mean a dynamic process (whether in evolutionary biology or physics or economics or politics) when its evolution is governed by its own history. With this viewpoint has come the assertion that “history matters”. Attempts have gone in the name of dispelling the “existing confusions in the literature” even to the extent of defining the concept in terms of “the property of non-ergodicity in stochastic processes” and of explaining the notion of ‘lock-in’ reflexively in terms of “resistance to historical economics” as “a manifestation of ‘sunk cost hysteresis’ in the sphere of human cognitive development”. Read along with it the argument that history or past decisions can lock in certain inferior outcomes, though some studies have claimed to unfound such claims “(in private markets)”. The present paper attempts to explain the existence of pre-capitalist mode of production and culture in the developing economies as a manifestation of path dependence in a Marxian framework.

Status: Ongoing

## 90. Revisionism: The Game of Filling in the Marxian Blanks

N. Vijayamohanan Pillai

This constitutes a chapter of a book on ‘Poverty of Communism: The Game of Filling in the Marxian Blanks’. It sketches out the development of revisionism that is the games of filling in the perceived Marxian blanks as a series of wonderful survival tactics of capitalism made a mockery of the charming optimism of the Marxian ‘scientific’ determinism. The paper shows that Marx had left many a blank in respect of the process of the socialist revolution and a significant turn in the recognition of the new historical evolutionary process came from an unexpected quarter: from Engels himself, who attempted to fill in the Marxian theoretical blanks with concrete references from the social reality since 1848. Eduard Bernstein carried on this legacy

and earned the infamous title of ‘the father of revisionism’, whereas the later revisions of Marxism in the names of Leninism, Stalinism, Trotskyism, Maoism, and so on including even Castroism have been in general dubbed in terms of development of Marxism.

Status: Ongoing (Chapter in Book)

### New Initiatives

## 91. Correcting the Historical Injustice or Adverse Inclusion?: an Ethnographic Study of Tribal Forest Watchers in Kerala

Abhilash, T

Historically, tribal communities have an estranged relationship with the forest department, which is the direct representative of the hegemonic state in their daily life. Being an agency that is responsible for forest and environment protection the department has been emboldened with enormous powers over forest resources and the communities who are depending on forest for livelihood and living inside the forest for centuries. While the colonial state made forest as ‘eminent domain of the state’ and demarcated forests into different categories. This not only restricted the movement of the tribal communities inside the forest but also alienated them from their ancestral land. Forest bureaucracy turned out be a nightmare for many communities, especially the settled and semi-nomadic pastoral adivasi communities. The idea of ‘fortress conservation’ followed by the colonial and post-colonial governments prevented human involvement in forest conservation until the the World Bank’s Indigenous Policy, 2000 and UN Declaration on the Rights of Indigenous Peoples (UNDRIP) 2007 that specifically provides that indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources and that States shall establish and implement assistance programmes for indigenous peoples for such conservations and protection, without discrimination. Many countries began to include indigenous population in forest conservation as it became



a moral obligation for many of them to correct the historical injustice perpetrated to the communities by them. Between 2014 and 2016 Kerala government recruited more than 400 forest watchers as part of the state's commitment to correct the historical injustice to the communities with the realization that the role and knowledge of indigenous communities could be effectively used in forest conservation. Therefore, this study would look in the socio-economic changes, if any, that brought into the livelihood of these watcher's in order to assess the qualitative changes that happened to their community and individual as well as how far the forest department is able to use their expertise in conservation. This study would examine tribal watchers from two districts - preferably Wayanad and Thrissur - from north and central Kerala and Kottayam, Pathanamthitta and Idukki from south of Kerala. The qualitative data would be gathered through ethnographic field survey.

Status: New Initiative

## (I) OTHER STUDIES

### *Completed Studies*

#### **92. From Nomadism to Precarious Living: Destitution and Exclusion of Malai Pandaram in Kerala**

Abhilash T and Prashanth Bansode (Gokhale Institute of Politics and Economics)

Imposition of a settled-agricultural life without fulfilling the subsidiary needs not only created a number of serious problems but also storm-tossed livelihood options of Malai Pandârams, a semi-nomadic tribal community, in the southern western ghat region of Kerala. State's policy ultimately pushed them into precarious living standards. While the attempts to resettle other hill-tribes Malai Arayan and Kanikar were successful but the story of Malai Pandâram is just the opposite. The study reveals that the resettlement policies for Malai Pandâram 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 also tries to demystify the popular perception that Malai Pandâram is 'idle, shy and retiring' by analysing their interaction with outside world through education and other means over the decades.

Status: *Social Change* (<https://journals.sagepub.com/loi/scha>) Accepted in January 2020 and Publication under progress.

#### **93. The Role of the Federal Reserve in the U.S. Housing Crisis: A VAR Analysis with Endogenous Structural Breaks**

Srikanta Kundu and Mahua Barari (Department of Economics, Missouri State University, Springfield)

This paper re-examines the role of the Federal Reserve in triggering the recent housing crisis. Specifically, we explore if the relationship between the federal funds rate and the housing variables underwent structural changes in the wake of the housing crisis. Using quarterly data spanning 1960–2017, we estimate a VAR model involving federal funds rate, real GDP growth and a housing variable (captured by house price inflation or residential investment share or housing starts) and conduct time series analysis for the pre- and post-crisis periods. While previous studies mostly set break-dates based on events known a priori to split the full sample to subsamples, we endogenously determine structural break points occurring at multiple unknown dates. Our Granger causality analysis indicates that the federal funds rate did not cause house price inflation, although it caused residential investment share and housing starts in the pre-crisis period. In the post-crisis period, the real GDP growth caused residential investment and housing starts while house price inflation had a momentum of its own. Our impulse response and forecast error variance decomposition analysis reinforce these results. Overall, our findings suggest that housing volume fluctuates more than house prices over the business cycle.

Status: Published in *Journal of Risk and Financial Management* (<https://www.mdpi.com/1911-8074/12/3/125>)





#### **94. Nonlinear Relationships between Inflation, Output Growth and Uncertainty in India: New Evidence from a Bivariate Threshold Model**

Kusha Banik Chowdhury (Indian Statistical Institute (North-East Centre), Tezpur, Assam) and Kaustav Kanti Sarkar (Reserve Bank of India, Mumbai) and Srikanta Kundu

This study examines the relationships between inflation, output growth and their uncertainties for India over the period from 1971 to 2015. The paper extends the existing empirical literature by employing a regime switching model to understand the dynamics of the above linkages in different inflation and output growth regimes of India. Our estimated results indicate that inflation is a positive determinant of output growth in the low-growth regime. Furthermore, output growth significantly boosts inflation during low-inflation regime. Thus in a situation, when both inflation and output growth are low, moderate inflation is helpful to growth as well as rise in growth feeds back into inflation. On the other hand, during high-inflation regime, nominal uncertainty significantly reduces inflation, thus providing evidence in support of the price 'stabilization' motive of the monetary authority.

Status: Accepted into Bulletin of Economic Research.

#### **95. Asymmetries in the Monetary Policy Reaction Function: Evidence from India**

Srikanta Kundu and Irfan Ahmad Shah (Doctoral Scholar)

This paper analyzes the reaction function of monetary authority in India from 1996Q 1 to 2018Q 4 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. 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. The analysis discloses that Reserve Bank of India (RBI) aggressively reacts toward output gap during recessionary periods compared to non-recessionary periods. This exhibits

that preference of monetary authority in India may better be characterized as recession avoidance preference compared to inflation avoidance preference. Further, we have found a high degree of inertia in the policy rates of RBI.

Status: Submitted to Journal

#### **96. Effect of Economic Policy Uncertainty on Stock Market Return and Volatility under Heterogeneous Market Characteristics**

Srikanta Kundu and Amartya Paul (Doctoral Scholar)

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 incorporating country specific and market condition specific characteristics while examining the relationship. Country specific effect is controlled by a PVAR model with country fixed effect, while a MSVAR model is used to study the relationship under differential market conditions, viz., bull and bear. Both models suggest that a rise in EPU increases volatility at the same time period and that leads to a decrease in return. Thereafter, return increases and volatility falls as a result of a positive uncertainty shock. MSVAR model suggests that the response of risk and return to a shock in EPU is highly asymmetric and it is much higher in bear market than the bull market.

Status: Submitted to Journal and CDS Working Paper

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

Srikanta Kundu, Ruma Kundu (Sikkim University, Tadong, Gangtok) and Kul Bahadur Chettri (Research Scholar, Department of Economics, Sikkim University)

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: Submitted in a journal

### **98. Central Bank Intervention in Foreign Exchange Market under Managed Float: A Three Regime Threshold VAR Analysis of Indian Rupee-US Dollar Exchange Rate**

Srikanta Kundu and Sunandan Ghosh

We try to comprehensively analyze the nuances of Central Bank's intervention in the foreign exchange market under a managed float exchange rate regime. We employ a three regime threshold VAR model and identify two endogenously determined threshold values of exchange rate cycle beyond which the Reserve Bank of India (RBI) intervenes in the Indian Rupee-US Dollar (Re/\$) exchange rate market. We find that, as FIIs flow in, RBI's interventions, mainly through open market operations, are successful in bringing the Re/\$ exchange rate within the desired band. Within the band, the RBI tries only to mitigate domestic inflationary conditions.

Status: To be submitted in a journal.

### **99. Risk and Return Spillover: Does Liquidity Of Stock Market Play A Role? Evidence from US, UK and India**

Srikanta Kundu 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 conditions defined by liquid and ill-liquid market conditions. Relative bid-ask spread has been considered as the measure of market (ill) liquidity and has 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. Return spillover is positive and significant between US and UK in liquid market condition, whereas, the same spillover in case of India with US and UK is high in ill-liquid market condition. Volatility spillover is positive and significant in all the markets. The results also find the evidence of CAPM model in both the market condition but risk premium is significantly higher in case of illiquid market condition. Cross market risk-return relationship is depending on the relative strength of two opposite forces.

Status: To be submitted in journal

### **100. Mean and Volatility Spillovers between REIT and Stocks Returns: A STVAR-BTGARCH-M Model**

Mahamitra Das (Xavier School of Economics, Xavier University Bhubaneswar), Srikanta Kundu, and Nityananda Sarkar (Economic Research Unit of the Indian Statistical Institute)

In this study we have examined volatility spillovers as well as volatility-in-mean effect between REIT returns and stock returns for both the USA and the UK by applying a bivariate GARCH-M model where the conditional mean is specified by a smooth transition VAR model. Dynamic conditional correlation approach has been applied with the GJR-GARCH specification so that the intrinsic nature of asymmetric volatility in case of positive and negative shocks can be duly captured. The major findings that we have empirically found is that the mean spillover effect from stock returns to REIT returns is significant for both the countries while the same from REIT returns to stock returns is significant only in the UK. It is also evident from the results that own risk-return relationship of REIT market is positive and significant only in the bear market situation in both the countries while for the stock market own risk-return relationship is insignificant for



both the bull and bear markets in the USA but it is negative in the bear market condition and positive in the bull market situation for the UK. We have also found that asymmetric nature of conditional variance and dynamic behavior in the conditional correlation holds as well. Finally, several tests of hypotheses regarding equality of various kinds of spillover effects in the bull and bear market situations show that these spillover effects are not the same in the two market conditions in most of the aspects considered in this study.

Status: Completed

### **101. Conceptualizing Energy Efficiency: A Techno-Economic Approach**

N. Vijayamohanan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

Conserving electrical energy through energy efficiency measures can meet the dual challenge of increasing energy demands at reasonable costs in a sustainable manner, and of reducing the environmental and health threats associated with the use of hydrocarbons, having the potential of encouraging clean energy systems. The present paper seeks to document the techno-economic conceptualization of energy efficiency as a prelude to a documentation of the analytical methods of its measurement, which we consider in another paper. Defining energy efficiency in the Patterson's sense of useful output per unit of input leads us to define energy efficiency also as an increase in net benefits per unit of energy. This helps us differentiate between energy efficiency and energy conservation, which is an important complement to the former. It is possible to design and devise energy efficiency indicators at different levels of aggregation in a pyramidal structure, using the corresponding statistics, such as the international statistics for national level indicators, national economic statistics for various macro-sectoral indicators, and so on down to the most disaggregated micro level data on individual plant for the corresponding operational units. It is generally believed energy consumption at any level of aggregation is essentially determined by three effects, viz., activity, structure and intensity. The paper presents a detailed illustration of this

for the bottom micro-level sectors as well as a conceptual framework that can be followed in an empirical exercise.

Status: Under review for publication.

### **102. Measuring Energy Efficiency: A Review of the Techno-Economic Empirical Methods**

N. Vijayamohanan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

The present paper is an attempt at a comprehensive documentation of some of the analytical methods of energy efficiency measurement. The methods employed here fall under three heads: traditional single factor productivity analysis, decomposition analysis and multi-factor productivity analysis. The paper starts with the traditional indicators identified by Patterson to monitor changes in energy efficiency in terms of thermodynamic, physical-thermodynamic, economic-thermodynamic and economic indicators. When we analyze the indicator in terms of energy intensity changes, the corresponding index falls under two major decomposition methods, namely, structural decomposition analysis and index decomposition analysis. Section four discusses the structural decomposition analysis in terms of its two approaches, viz., input-output method and neo-classical production function method; and the next section presents the index decomposition analysis in terms of Laspeyres' and Divisia indices. Next to the traditional single factor productivity approach, we have the multi-factor productivity analysis in terms of parametric and non-parametric methods. The latter includes the ever-popular data envelopment analysis, while the former has the erstwhile popular total factor energy productivity analysis and the currently fanciful stochastic frontier production function approach.

Status: Under review for publication.

### **103. Measuring Energy Efficiency in Kerala: Index Decomposition Analysis**

N. Vijayamohanan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

The traditional interest in energy efficiency has centred on a single energy input factor in terms of productivity that has



become famous through the index method in terms of activity output per unit of energy use. The enquiry that has proceeded from the problems associated with this method has led to identifying the effect source of variation, in terms of decomposition analysis. A variant of factor decomposition analysis, index decomposition analysis takes energy as a single factor of production, and explores various effects on energy intensity changes, by decomposing these changes into pure intensity changes effect, structure changes effect and activity changes effect. The present paper seeks to measure energy efficiency in Kerala in terms of index decomposition analysis, using the Logarithmic Mean Divisia Index (LMDI) method. For the empirical exercise of decomposition, we consider two energy sectors of Kerala: power sector and petroleum sector. Since the petroleum consumption data is available only for the period from 2007-08 to 2016-17, we take this as our study period for the analysis. As the measure of activity, we have the usual real gross State domestic Product (GSDP at 2011-12 prices). First, we analyse the two sectors separately, and then the combined sector is analysed for decomposition. The petroleum consumption data relating only to the secondary and tertiary sub-sectors, the less-efficient petroleum sector is found to overweigh the combined energy sector of Kerala to such an extent that the energy-efficiency potential of these two sub-sectors gets clouded. A sufficiently high degree of energy efficiency in the petroleum sector can indeed reverse this anomaly.

Status: Under review for publication.

#### **104. Measuring Energy Efficiency in Kerala: Data Envelopment Analysis**

N. Vijayamohan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

Traditionally, there are two basically reciprocal energy efficiency Indicators: one, in terms of energy intensity, that is, energy use per unit of activity output, and the other, in terms of energy productivity, that is, activity output per unit of energy use. The enquiry that has proceeded from the problems associated with this method of a single energy input factor in

terms of productivity has led to multi-factor productivity analysis. We have here two approaches: parametric and non-parametric. Parametric approach famously includes two methods: the erstwhile popular total factor energy productivity analysis and the currently fanciful stochastic frontier production function analysis; the non-parametric approach is popularly represented by data envelopment analysis.

The present paper is an attempt to measure efficiency in electrical energy consumption in Kerala, India. We apply the non-parametric mathematical programming method of data envelopment analysis of the multi-factor productivity approach, and estimate the efficiency measures under the two scale assumptions of constant returns to scale (CRS) and variable returns to scale (VRS); the latter includes both increasing (IRS) and decreasing returns to scale (DRS). Scale efficiency measures are also given to find out whether a firm is operating at its optimal size or not, implying degrees of capacity utilization.

Status: Under review for publication.

#### **105. Measuring Energy Efficiency: An Application of Stochastic Frontier Production Function Analysis to Power Sector in Kerala**

N. Vijayamohan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

There are two basically reciprocal, traditional energy efficiency Indicators: energy intensity, that is, energy use per unit of activity output, and energy productivity, that is, activity output per unit of energy use. The enquiry that has proceeded from the problems associated with this method of a single energy input factor in terms of productivity has led to multi-factor productivity analysis. We have here two approaches: parametric and non-parametric. Parametric approach famously includes two methods: the erstwhile popular total factor energy productivity analysis and the currently fanciful stochastic frontier production function analysis; The non-parametric approach is popularly represented by data envelopment analysis. The present paper is an attempt to measure efficiency in electrical energy consumption in Kerala, India. We apply the parametric method of stochastic



frontier production function analysis on a panel data of the Kerala power sector with three sectors (Primary, Secondary and Tertiary) for the period from 1970-71 to 2016-17. For a comparative purpose, we also have a regression with a pooled data stochastic frontier. The results indicate that the sector-wise technical efficiency estimates of the Kerala power sector are independent of time, which can significantly refer to a technically stagnant situation in energy efficiency. The implication of the time-varying decay model, even though statistically insignificant, of a falling trend in the technical efficiency of all the three sectors also is a hot matter of serious concerns.

Status: Under review for publication.

## 106. Energy Efficiency in Kerala

N. Vijayamohan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

One positive impact of the 1973 oil crises has been the concerted effort across the world to reduce energy consumption through energy use efficiency improvements. Improving energy efficiency ensures the objective of conserving energy and thus promoting sustainable development. Recognition of this fact has now appeared in terms of including the aim of improving efficiency as an important component of electrical energy policy in all the countries across the globe. Conserving electrical energy through energy efficiency measures can meet the high challenge of increasing energy demands at reasonable costs in a sustainable manner. Moreover, improving energy efficiency also has the potential of reducing the environmental and health threats associated with the use of hydrocarbons and of encouraging clean energy systems.

Improving energy efficiency is expected to reduce energy demand through its rational use in the end-use devices; every unit of energy input consumed will bring in greater amount of useful energy output. Such improvements can manage energy demand in better ways and contribute highly to a better environment. The present study is a documentation of the current pattern and trend of energy

efficiency in the global, Indian and Kerala scenarios.

Status: Published as MPRA Working Paper No. 97498.

[https://mpra.ub.uni-muenchen.de/97498/1/MPRA\\_paper\\_97498.pdf](https://mpra.ub.uni-muenchen.de/97498/1/MPRA_paper_97498.pdf)

## 107. Economic Concept of Energy Efficiency

N. Vijayamohan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

Though energy efficiency is traditionally defined in terms of two basically reciprocal indicators, as energy intensity (energy use per unit of activity output), and as energy productivity (activity output per unit of energy input), the concept is a context-specific one, not necessarily equivalent to energy savings, and is usually defined as net benefits (useful output) per unit of energy use, but without an unequivocal operationally useful quantitative measure. This necessitates construction of a series of indicators specific to the context (or level of sectoral disaggregation). It is generally believed that energy consumption is essentially determined by three effects, viz., activity, referring to economic or human activity level (output/income produced, population/households supported, passenger-km travelled, etc), structure referring to the composition of activity (shares of different sectors or subsectors of human/economic activities) and energy intensity, the quantum of energy required to deliver one unit of economic/human activity. The exact definitions and units of these factors are in turn determined by the level of aggregation. The present paper documents the definitions and units of these three effects.

Status: Published as MPRA Working Paper No. 97501.

[https://mpra.ub.uni-muenchen.de/97501/1/MPRA\\_paper\\_97501.pdf](https://mpra.ub.uni-muenchen.de/97501/1/MPRA_paper_97501.pdf)

## 108. Energy Efficiency Indicators: Estimation Methods

N. Vijayamohan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

Traditionally, there are two basically reciprocal energy efficiency indicators: one, in terms of energy intensity, that



is, energy use per unit of activity output, and the other, in terms of energy productivity, that is, activity output per unit of energy use. A number of approaches characterize the efforts to measure these indicators. The present paper attempts at a comprehensive documentation of some of the analytical methods of such measurement. We start with a comprehensive list of the estimation methods of energy productivity indicators. Note that the methods fall under three heads: traditional single factor productivity analysis, decomposition analysis and multi-factor productivity analysis. The paper takes up each of these in detail, starting with the traditional indicators identified by Patterson to monitor changes in energy efficiency in terms of thermodynamic, physical-thermodynamic, economic-thermodynamic and economic indicators. When we analyze the indicator in terms of energy intensity changes, the corresponding index falls under two major decomposition methods, namely, structural decomposition analysis and index decomposition analysis. The structural decomposition analysis is discussed in terms of its two approaches, viz., input-output method and neo-classical production function method; and the index decomposition analysis in terms of Laspeyres' and Divisia indices. In the multi-factor productivity approach, we consider the parametric and non-parametric methods, viz., and stochastic frontier model and data envelopment analysis respectively.

Status: Published as MPRA Working Paper No. 97744.

[https://mpra.ub.uni-muenchen.de/97744/1/MPRA\\_paper\\_97744.pdf](https://mpra.ub.uni-muenchen.de/97744/1/MPRA_paper_97744.pdf)

### **Ongoing Studies**

#### **109. Bank Capital Structure and Monetary Policy Transmission: Evidence from India**

Srikanta Kundu and Shelja Bhatia (Doctoral Scholar)

The study examines the role of capital structure of commercial banks for the transmission of monetary policy in the context of India. We use a panel of 36 banks, consisting of 21 public sector banks and 15 private sector banks. The period of analysis is 2004-05 to 2016-17. We use various econometric methods to check the impact of

monetary policy shocks on capital structure of banks. It is observed that monetary policy shocks have significant impact on the Tier-I capital of banks through its effect on interest margins and profits. An expansionary policy is found to increase the profitability of Indian banks which expands their stock of Tier-I capital. The evidences thus suggest that bank capital is an important channel to study the transmission mechanism for Indian economy. This finding has important implications in the present context where Indian banking industry is struggling with enormous non-performing assets and consequent high levels of provisioning and capital erosion.

Status: Ongoing (Expected date of completion: September 2020)

#### **110. Separability in India Agricultural Households**

Thiagu Ranganathan and Tirtha Chatterjee

Agricultural households are distinct from other households since their production and consumption decisions may be interlinked. Several studies which have looked into the issue and found that over time households have become more separable compared to what they were in the past. In this paper, we look into agricultural households in India and test if their decisions regarding production and consumption are separable. Literature cites market imperfection as the reason driving this inseparability among agricultural households. In this paper, our attempt is to identify the reasons and implications of lack of household separability in India.

Status: To complete by September 2020

### **Completed Research Projects**

#### **111. An Assessment on Non- Tax Revenue in Kerala**

P.L. Beena and Ritika Jain

*Sponsor:* Administrative Reform Committee, Government of Kerala

The fiscal structure of an economy is mainly based on the revenue it collects and expenditure incurred to it. Since





the state is a benevolent provider to the citizens, reducing the public expenditure to reduce the fiscal deficit will not be a right solution. So instead of reducing the public expenditure the focus should be in hiking the amount of revenue receipts. Revenue receipts are mainly come from two sources: tax revenue and non tax revenue. About 39 per cent of revenues in 166 countries – including those which were not resource-rich – were from non-tax revenue sources (World Development Indicators, World Bank 2003). There are some countries within Asia where non-tax revenue constitutes major share to the total revenue of the government. Singapore is one of such countries in Asia (China1998). However, there is not much revenue generation in India arising out of non-tax sources. Kerala do not have significant revenue raised out of non-tax revenue sources through user charges and fees although government spend a large chunk of financial resources in order to provide social and community services. In absolute terms, the total revenue receipts of Kerala for 2018-19 are estimated to be Rs 1, 02,801 crore, an increase of 16.5 per cent over the revised estimates of 2017-18. Of this, Rs 72,860 crore (71 per cent of the revenue receipts) is expected to be raised by the state through its own resources and Rs 29,942 crore (29 per cent of the revenue receipts) will be devolved by the centre in the form of grants and the state's share in taxes. Given this context, an attempt has been made in this study to analyse the potential sources of non tax revenue. The paper is divided in to four sections. The first section deals with the concepts, definition and analytical framework by reviewing the existing studies related to the empirical and theoretical literature. The second section looks in to the structure and pattern of non-tax revenue in Kerala for the last four decades. A detailed analysis on the composition of major component of non-tax revenue has been carried out in the third section. The fourth section sums up the major findings and highlights the possible policy options for raising financial resources through non-tax revenue.

Status: Report

## **112. Institutional Support for Management of Agro-Biodiversity in Kerala: Access Capacity Gaps Pertaining to Agro Biodiversity and Identify Opportunities to Mitigate Impacts of Current Practices of Agriculture and Allied Sectors on Agro Biodiversity Conservation, Management and Use**

Abhilash, T, Sunil Mani, Mohan Kumar (Research Assistant) and Santhakumar V (Azim Premji University)

*Sponsor: UNFAO*

Kerala is one of the most biodiverse states in the Indian union. The state has put in place an elaborate network of policies and institutions to maintain and indeed promote agrobiodiversity in the state. The present paper undertakes a detailed review of these by evaluating the policies and laws that impact on agrobiodiversity either positively or negatively. It further considers the role of public research institutes that generate the requisite knowledge for maintaining biodiversity and the cases of a number of local self-governments, which have been successful in promoting agrobiodiversity. The public research institutes and non-governmental organisations have played an important role in not just generating awareness of diverse seeds and breeds, but also play a very important role in conserving existing varieties. Based on the analysis, the study identifies a number of researchable issues that may be taken up in future, which will essentially contribute to the management of and mainstreaming of agrobiodiversity in the state. The ensuing analysis shows that while the state has a number of exemplary policies, laws and practices, its success at the level of local self-governments depends crucially on whether agrobiodiversity is tied to the livelihood strategies of ordinary people. Further, it also depends on the presence of certain key mentors or charismatic leaders within the local self-governments who can make a crucial difference. Merely relying on institutional forms such as Biodiversity Management Committees and People's Biodiversity Registers are unlikely to produce the desired results.

Status: Under Publication





### **113. Sector Wise Electrical Energy Intensity in Kerala Factoring in Energy Efficiency and Productivity**

*Sponsor:* Energy Management Centre, Trivandrum

N. Vijayamohanan Pillai

One positive impact of the 1973 oil crises has been the concerted effort across the world to reduce energy consumption through energy use efficiency improvements. Improving energy efficiency ensures the objective of conserving energy and thus promoting sustainable development. Recognition of this fact has now appeared in terms of including the aim of improving efficiency as an important component of electrical energy policy in all the countries across the globe. Conserving electrical energy through energy efficiency measures can meet the high challenge of increasing energy demands at reasonable costs in a sustainable manner. Moreover, improving energy efficiency also has the potential of reducing the environmental and health threats associated with the use of hydrocarbons and of encouraging clean energy systems. In this study, our focus is on electrical energy conservation by means of efficiency improvements. Improving energy efficiency is expected to reduce energy demand through its rational use in the end-use devices; every unit of energy input consumed will bring in greater amount of useful energy output.

The study is designed to rely mainly on secondary data, available from various departments of the State Government. In respect of the case studies some field survey also is required. The main objective of the study is to examine the extent to which aggregate energy intensity trends are attributable to shifts in the underlying sectoral structure, activity, and efficiency improvements within individual power consuming sectors, viz., domestic, commercial, industrial, agricultural, and buildings sectors, of Kerala. An ambitious project, this study is first of its kind in India in that (i) it contains a comprehensive documentation of conceptualization of energy productivity, (ii) as well as a comprehensive documentation of analytical methods of

measuring energy productivity; (iii) it utilizes all the three important methods of measuring energy productivity: logarithmic mean Divisia index decomposition method under single factor productivity approach; and both parametric (stochastic production frontier) and non-parametric (data envelopment analysis) under multi-factor productivity approach; and (iv) it utilizes logarithmic mean Divisia index decomposition method for energy efficiency simulation purposes.

A major problem that we experienced during the execution of this project was availability and suitability of the required data for Kerala. Finally we had to satisfy ourselves mostly with the available time series data on electricity supply only. In Chapter four on decomposition analysis, we use along with the power sector data, petroleum consumption data also available only for a limited number of recent years. In a positive sense, however, this experience has opened our eyes to the dire requirement for developing a system for processing and storing varieties of data and other informative materials in the energy sector at different aggregation levels not only for Kerala but also for the entire country itself. We have also provided an illustration for the suitable kind of data required for such a study of the bottom micro-level sectors.

Status: Completed

#### ***New Initiatives***

### **114. Networks and Externalities with Fixed Cost of Production**

Rajit Biswas

Network externalities are introduced into a standard model of imperfect competition. First fundamental theorem of welfare economics does not remain valid. Second fundamental theorem is being examined. Interesting results are derived for necessary and sufficient conditions for existence of equilibrium.

Status: New Initiative



### **115. Socio-Economic Influence on Child Immunisation in East Sikkim**

Srikanta Kundu and Ruma Kundu (Sikkim University, Tadong, Gangtok)

One of the biggest impediments to a healthy child is posed by a variety of diseases; hence the need for vaccination. However the success of the immunisation drive is conditioned by prevailing socio-economic conditions. This paper attempts to identify and estimate the impacts of various socio-economic factors on childhood immunization coverage in East district of Sikkim. The study is based on primary data consisting of 204 respondents collected through household survey. Ordered logit/Probit and Heckman probit model is used to estimate the significant change in childhood immunization coverage. The initial analysis found that the birth order of child (BOC), mother's age, standard of living, caste and religion have significant impact on childhood immunisation coverage.

Status: New initiative (Expected date of completion: September 2020)

### **116. Performance of $r-(k,d)$ class estimator in terms of mean square error matrix and Mahalanobis loss function under autocorrelated error**

Srikanta Kundu and Nityananda Sarkar (Economic Research Unit of the Indian Statistical Institute)

It is well-known in the statistical literature that multicollinearity creates a serious problem in a linear regression model and consequently ordinary least square (OLS) estimator produces large sampling variance and

becomes unreliable. Several alternative measures, including restricted least square (RLS), ordinary ridge regression (ORR), principal component regression (PCR) and combinations of these have been suggested by several researchers to address this issue. The performance of the above estimators have been compared by using mean square error matrix, Pitman's closeness criteria and Mahalanobis's distance function and provide certain restrictions under which each estimator will perform well. A set of test statistic have also been introduced to test if a given data set is following the restrictions.

Most of these restrictions and tests have been derived under the assumption of independently and identically distributed residuals. In this work we want to derive the restrictions, under which the estimator will perform well, assuming autocorrelated disturbances. Autocorrelations are very common in real data particularly in case of economic data. Hence, it is very important to study how the presence of autocorrelation are influencing the performance of different estimators as well as whether the pattern of autocorrelation viz., autoregressive (AR), moving average (MA) and autoregressive moving average (ARMA), makes any change in the performance of the above estimators.

The  $r-(k, d)$  class estimator proposed by Özkale (2012) is the most general estimator in the literature. In this study we are considering this estimator and verifying the performance compare to the other estimator considering autocorrelated errors. To do this, we are deriving the condition under which it will perform well and will design a test statistic to test whether a given data is following the criteria or not.

## OUTPUTS OF RESEARCH

### (A) PUBLICATIONS

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

At present there are a total of 485 working papers and 45 books brought out under the CDS programme. This year 8 working papers were published. A total of 6 books have been published by the faculty, 39 research articles by faculty and students in professional journals. 20 chapters in edited volumes, 4 RULSG papers, 7 papers under the Commentary on India's Economy series and 69 other publications in reports, newspapers, magazines etc. have been brought out. The faculty researches are also published by well-reputed publishers like, Routledge, Sage, Springer, 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

##### **S. Irudaya Rajan**

*India Migration Report 2019, Diaspora in Europe*, (Editor) Routledge. 2019.

*Hand Book on Internal Migration*. (Edited with Sumeetha, M) . Sage. 2019.

*Asianisation of Migrant Workers in the Gulf Countries*. (Edited with Ginu Zachariah Oommen ) Springer. 2020.



*Development, Environment and Migration: Lessons for Sustainability* (Edited with Debabrata Baral) Routledge. 2020.

### Jayaseelan Raj

Vikaski Chakki Mein Piste Log: Ikkiwi Sadike Bharat Mein Jatiya, Janjatiya, aur Vargiya Asamanta. New Delhi: Oxford University Press. (Hindi Edition of *Ground Down By Growth*) {With Shah, A., Lerche, J., Raj, J., Axelby, R., Benbaabali, D., Donegan, B., & Thakur, V.}

## Books by Honorary Fellows

### M.A. Oommen

'Ormappadikal' (in Malayalam) published by DC Books, Kottayam. 2019.

## (b) JOURNAL ARTICLES

### Abhilash Thadathil

'Access to Sanitation and Risk of Developing Urinary Tract Infections among Women from Low Socio-Economic Settings,' *International Journal of Community Medicine and Public Health*, 2019, July (With : Rama Kawade, Anjali Radkar and Deepa Thakur)

'From Nomadism to Precarious Living: Destitution and Exclusion of Malai Pandaram in Kerala,' *Social Change* (<https://journals.sagepub.com/loi/scha>) (with Prashanth Bansode) Accepted in January 2020 and Publication under progress.

### Chandril Bhattacharyya

'Informality, Enforcement and Growth,' *Economic Modelling*, 84, 259-274. 2020. (with Maiti, D.)

### J. Devika

'Women's Labour, Patriarchy and Feminism in Twenty-first Century Kerala: Reflections on the Global Present,' *Review of Development and Change*, <https://doi.org/10.1177/2F0972266119845940>

'Bridge-Books in Malayalam: The Transformative Potential of Social Sciences Writing', in *Café Dissensus*, 50, Special

Issue on Writing in Academia, Anannya Dasgupta and Madhura Lohokare (eds)

<https://cafedissensus.com/2019/06/24/contents-writing-in-academia-issue-50/>

### Hrushikesh Mallick

'Does Gender Equality Matter for Regional Growth and Income Inequality? An Empirical Analysis for the Indian States,' *Journal of International Development*, <https://doi.org/10.1002/jid.3460>, (with Amit Nandan).

### S. Irudaya Rajan

'Demographic and Health Diversity in the Era of SDGs.National Family Health Survey-4,' *Economic and Political Weekly*. Vol. 55, Issue No. 6, 08 Feb. 2020. (With K. S. James and Srinivas Goli)

'Twenty-five Years of the NFHS - Lessons for the Future. National Family Health Survey-4,' *Economic and Political Weekly*. Vol. 55, Issue No. 6, 8 February, 2020.

'The Realities of Voting in India: Perspective from Internal Labour Migrants,' *Economic and Political Weekly*, Volume LIV, Vol. 18, Pp.12-14. 2019. (With Ashwin Kumar and Arokkiaraj Heller)

'Draft Migration Bill 2019: The Missing Link,' *Economic and Political Weekly*, Volume LIV, No.30, Pp.19-22. 2019 (With Varun Aggarwal and Priyansha Singh)

'Re-integration of Return Migrants and State Responses,' *Productivity*, Volume 60, No.2, Pp.136-142. 2019. (With C S Akhil)

'Research on International Migration in India needs a fresh Start,' *Economic and Political Weekly*. Economic and Political Weekly – Engage. 28 January 2020. (With H Arokkiaraj)

'New Evidences from the Kerala Migration Survey 2018,' *Economic and Political Weekly*, Volume LV, No.4, Pp.41-49. 2020. (With K.C. Zachariah)

'Living Arrangements among Elderly,' *Geography and You*, Vol.19, Issue 19 & 20 No. 130 & 131 April 1-15 & 16-30 Pp 26-31.2019. (With S. Sunitha)



### M. Parameswaran

'Virtuous Cycle and Economic Growth in India,' *Economic Political Weekly*, Vol. 54, No. 41, pp. 16-18. 2019.

### Ritika Jain

'Bribery and Firm Performance In India: A Political Economy Perspective,' *Journal of Asian Economics*. 101181. 19 March, 2020.

'Effect of Electricity Act on Tariff Gap within the Subsidizing Sector: The Case of India,' *Energy Policy*, 132, 901-914, 2019 (with Amit Nandan)

### Srikanta Kundu

'The Role of the Federal Reserve in the U.S. Housing Crisis: A VAR Analysis with Endogenous Structural Breaks,' *Journal of Risk and Financial Management* (<https://www.mdpi.com/1911-8074/12/3/125>), : 23 July 2019. (with Mahua Baraari)

'Central Bank Intervention in Foreign Exchange Market under Managed Float: A Three Regime Threshold VAR Analysis of Indian Rupee-US Dollar Exchange Rate,' Online at <https://mpira.ub.uni-muenchen.de/93466/> MPRA Paper No. 93466, posted 24 April 2019 02:54 UTC.(with Sunandan Ghosh)

'Mean and Volatility Spillovers between REIT and Stocks Returns A STVAR-BTGARCH-M Model,' Online at <https://mpira.ub.uni-muenchen.de/94707/> MPRA Paper No. 94707, posted 28 June 2019 09:11 UTC (With Mahamitra Das and Nityananda Sarkar)

### Sunandan Ghosh

'Central Bank Intervention in Foreign Exchange Market under Managed Float: A Three Regime Threshold VAR Analysis of Indian Rupee-US Dollar Exchange Rate,' Online at <https://mpira.ub.uni-muenchen.de/93466/> MPRA Paper No. 93466, posted 24 April 2019 02:54 UTC.(with Srikanta Kundu)

### Sunil Mani

'History Does Matter, India's Efforts at Developing a Domestic Mobile Phone Manufacturing Industry", *Economic and*

*Political Weekly*. (Forthcoming-Letter of acceptance as a special article was received on January 22, 2020).

### Thiagu Ranganathan

'The Curious Case of Cocktails, Weedicides, and Tonics,' *Economic and Political Weekly*, 54(44): 1-12. 2019 (With Gaurav. S)

### Udaya S. Mishra

'Household Assets and Wealth Quintiles, India 2006-16: Insights on Economic Inequalities' *Economic and Political Weekly*, Vol.55(6), pp.83-91. 2020. (with William Joe).

'Associating State of Water and Sanitation with Childhood Diarrhoea: Anomalies and Contradiction' *Experimental Results*, Vol.(1).pp. 1-10. 2020. (with Bevin Vijayan).

'Determinants of Inequality in Caesarean Delivery in India: Decomposition Analysis' *Health Care for Women International*, 2020 (forthcoming) (With Basant K Panda, Itishree Nayak).

'Rising Extent Caesarean Delivery and its Differential Access in regions of India, 2005-16' *Journal of Public Health: From Theory to Practice*. 2019 (forthcoming) (with Basant K Panda, and Sanjay K. Mohanty).

'Educational Expansion and Schooling Inequality: Testing Educational Kuznets Curve for India,' *Social Indicators Research*, Vol.141 (3), pp. 1265-1283. 2019. (with Vachaspati Shukla).

'Govt. Interventions on Tobacco Control in India: A Critical Review' *Indian Journal of Human Development*, Vol.13 (2), pp.183-194. 2019. (with Sanchita Mukherjee).

'Gender Based Wage Discrimination in Indian Urban Labour Market: An Assessment' *The Indian Journal of Labour Economics* 2019 (Forthcoming) (with Balakrushna Padhi, and Urmi Pattanayak).

'Affect of Education–Occupation Mismatch on Wages in India' *The Indian Journal of Labour Economics* 2019 (Forthcoming) (with Banantika Dutta).



### Jayaseelan Raj

'The Crisis and the Retirement: Alienation in Kerala's Tea Belt.' *Focaal: Journal of Global and Historical Anthropology*. Vol. 86: 84-96. 2020.

'Beyond the Unions: Pembillai Orumai Women's Strike in South Indian Tea Belt.' *Journal of Agrarian Change*. Vol. 19 (4): 671-689. 2019.

'From Labour Contractor to Worker-Agents: Transformations in the Recruitment of Migrant Labour in India.' *Contributions to Indian Sociology*. Vol. 53 (2): 272-298. 2019. (With Richard Axelby)

### Vinoj Abraham

Jobless Growth Through The Lens of Structural Transformation, ' *Indian Growth and Development Review*, Vol. 12 No. 2, pp. 182-201. 2019. <https://doi.org/10.1108/IGDR-07-2018-0077>

### Journal Articles by Honorary Fellows/Visiting Professors

#### K.P. Kannan

'Not by Growth Alone: The Challenge of Development in a Globalized World' in *The Indian Journal of Labour Economics*, Oct-December. 2019.

'Growth, Employment and Labour through a Budget Lense' in *Economic and Political Weekly*, Vol.LIV, No.33, August 17. 2019.

'A Low Growth, No Employment and No Hope Budget for 'Aspirational India' in *Economic and Political Weekly*, Vol.LV, No.9, February 29. 2020.

#### K. Narayanan Nair

'Disability and its Link with Human Development in India' *International Journal of Disability and Human Development*, 2019;18(3): 333-344 (with Mahesh Ramachandran, CS Krishnakumar).

#### Ravi Raman

'Can the Dalit Woman Speak? How 'intersectionality' helps advance Postcolonial Organization Studies,' *Organization*, 2020, Vol. 27(2) 272-290 (Special Issue Article)

### Journal Articles by Students / Post Doctoral Fellows/ Senior Fellows

#### C.S. Akhil

'Re-integration of Return Migrants and State Responses,' *Productivity*, Volume 60, No.2, Pp.136-142. 2019. (With S. Irudaya Rajan)

#### Amit Nandan

'Does Gender Equality Matter for Regional Growth and Income Inequality? An Empirical Analysis for the Indian States,' *Journal of International Development*, 2020. (with Hrushikesh Mallick).

'Effect of Electricity Act on Tariff Gap within the Subsidizing Sector: The Case of India,' *Energy Policy*, 132, 901-914, 2019 (with Ritika Jain)

### (c) CHAPTER(S) IN BOOKS

#### S. Irudaya Rajan

'The Impact of Trump Administration on Immigration,' Chapter 17 in S. Irudaya Rajan (ed.) *India Migration Report 2019: Diaspora in Europe*. Routledge. 2019. (with Nikhil Panicker)

'Impact of Demographic Transition in Kerala on Migration and Labour Force,' Chapter 18 in S. Irudaya Rajan (ed.) *India Migration Report 2019: Diaspora in Europe*. Routledge. 2019. (With Benoy Peter, Udaya S Mishra and Vishnu Narendran).

'Panel Data Analysis in Kerala Migration Surveys, 1998-2013,' Chapter 19 in S. Irudaya Rajan (ed.) *India Migration Report 2019: Diaspora in Europe*. Routledge. 2019. (With K. C. Zachariah).

'Migrant Odysseys,' Chapter 1 in S. Irudaya Rajan and M. Sumeetha (Eds.) *Hand Book on Internal Migration in India*, Sage Publications India. 2019. (With M Sumeetha)

'Student Migration,' Chapter 10 in S. Irudaya Rajan and M. Sumeetha (Eds.) *Hand Book on Internal Migration in India*, Sage Publications India. 2019. (With K.C. Zachariah and S. Sunitha).





'Demographic and Social Profile,' Chapter 13 in, S. Irudaya Rajan and M. Sumeetha (Eds.) 2019. *Hand Book on Internal Migration in India*, Sage Publications India. 2019. (With BernadD'Sami, Samuel Asir Raj and P. Sivakumar)

'Women Workers on the Move,' Chapter 29 in, S. Irudaya Rajan and M. Sumeetha (Eds.) *Hand Book on Internal Migration in India*, Sage Publications India. 2019. (With M. Sumeetha).

'Migrant and Language,' Chapter 45 in, S. Irudaya Rajan and M. Sumeetha (Eds.) *Hand Book on Internal Migration in India*, Sage Publications India. 2019. (With I.V. Prasad and Rinju).

'Migration and Financial Transfers,' Chapter 56 in, S. Irudaya Rajan and M. Sumeetha (Eds.). *Hand Book on Internal Migration in India*, Sage Publications India. 2019 (With US Mishra)

'Asianization in the Gulf: A Fresh Outlook,' Chapter 1 in S. Irudaya Rajan and Ginu Zachariah Oommen (eds). *Asianisation of Migrant Workers in the Gulf Countries*. Springer. 2020. (with Ginu Zacharia Oommen)

'The Future of Asian Migration to the Gulf Migrant Domestic Workers in the GCC: Negotiating Contested,' Chapter 16 in S. Irudaya Rajan and Ginu Zachariah Oommen (eds). *Asianisation of Migrant Workers in the Gulf Countries*. Springer. 2020. (with Ginu Zacharia Oommen)

'Politics and Contradictory Policies,' Chapter 13 in S. Irudaya Rajan and Ginu Zachariah Oommen (eds). *Asianisation of Migrant Workers in the Gulf Countries*. Springer. 2020. (with Jolin Joseph)

'Introduction: Mining Sector and the Idea of Development: Challenges, Policies and possibilities, Chapter in, S. Irudaya Rajan and Debabrata Baral (Ed.), *Development, Environment and Migration: Lessons for Sustainability*. Routledge. 2020. (with Debabrata Baral)

### K.J. Joseph

'Commodity Markets, Computers and Inclusive Development: A Study of Marketing and Price Formation of Cardamom

with e-Auctions,' in Raina Rajeswari S., Das, Keshab (Eds.) *Inclusive Innovation Evidence and Options in Rural India* New Delhi, Springer, 2019.

### M. Parameswaran

'Virtuous Cycle and Economic Growth in India,' In Uma Kapila (ed.) *Indian Economy: The Great Slowdown*, Academic Foundation, New Delhi. Pp. 65-70. 2019.

### Praveena Kodoth

'Between Prohibition of Political Activity Capture of Political Space: the Predicament of Student Politics in Kerala, in Suresh Babu (ed.) *Education and the public sphere: Exploring the Structures of Mediation in Post Colonial India*, London: Routledge, 2019.

'Unauthorised Recruitment of Migrant Domestic Workers from India: Interest Conflicts, Patriarchal Nationalism and State Policy' in Michiel Bass (ed.), *The Migration Industry in Asia: Brokerage, Gender and Precarity*, Singapore: Palgrave Macmillan. 2019.

### Tirtha Chatterjee

'Addressing Farm Distress: MSP, Loan Waivers and Direct Income Support Economic Developments in India, *EDI* Volume 245, edited by Uma Kapila, Academic Foundation. 2019. (with Gulati, A. & Terway, P)

### Vinoj Abraham

'Dynamic Nature of Jobless Growth in India', in Shyam Sundar (ed), *Globalization, Labour Market Institutions, Processes and Policies in India: Essays in Honour of Lalit K. Deshpande*, Palgrave Macmillan. 2019.

### Chapter (s) in Books by Honorary Fellows, Visiting Professors.

Parida, J. K., & Raman, R. K. 2020. 'Migration and Urbanization.' In S. Irudaya Rajan & Sumeetha, M. (Eds.). *Handbook of Internal Migration in India* (pp. 449 – 463). Sage Publication, India.



## (d) OTHER PUBLICATIONS

### Beena PL

'Dimensions of Indian Economy: As seen through the Economic Survey 2018-19 and the Union Budget 2019-20', *Commentary on India's Economy and Society*, No.9, CDS, 2019.

'IPR Institutions, Innovation activities and Developmental Implications of IP Asset Intensive Industries, in a conference proceeding on "Technology and Economy", XIV Annual Conference of Global Knowledge Sharing Forum (Knowledge Forum). 2019. (with Siddik Rabiyyath)

'IPR Regime and Developmental Implications: Case Study of IP Asset Intensive Industries,' Report submitted to ICAE, Kerala University, May 2019.

'India's Recent inward FDI: An Assessment,' by Chalapathi Rao and Biswajit Dhar, ISID in *Emerging Markets Journal*, Vol. 9, No.1, 2019, <http://emaj.pitt.edu/>. (Review article)

### Chidambaran G. Iyer

'World Development Report 2020: Trading for Development in the age of Global Value Chains,' *Commentary on India's Economy and Society Series* – 11, CDS.

### J. Devika

#### Other Published work

#### Monographs

'Why Do People Deny Environmental Destruction? The Pollution of the Periyar at Eloor and Local-level Responses', CDS Monograph Series 1, Ecological Challenges and Local Self-Government Responses, CDS: Thiruvananthapuram. [jointly with Chithira Vijayakumar and NC Narayanan]. [http://cds.edu/wp-content/uploads/2019/11/Eloor\\_CDS-Monograph-Series.pdf](http://cds.edu/wp-content/uploads/2019/11/Eloor_CDS-Monograph-Series.pdf)

- a. Wrote the drafts of the RULSG policy advocacy note for this year, titled 'Empowering Tribal Peoples, Deepening Democracy: An Advocacy Note for Strengthening Local Governments for the Effective

Implementation of the Forest Rights Act in Kerala.' This was published in March 2020.

- b. Have been editing the series of short papers in the RULSD Lateral Studies on Kudumbashree Series editor. Three papers are due to be published by May 2020; editing and the review process is ongoing.

#### Writing in the Malayalam Press

—Have published several essays in Malayalam journals and on-line media.

— Contributes a monthly column in the Indian Express Malayalam online magazine, IEMalayalam.com

#### Writing in the English Press

—Have continued to offer social science commentary on contemporary Kerala on [www.kafila.online](http://www.kafila.online)

—Have written in *The Hindu*, *Indian Express*, and *TOI*. Also in *The Wire*, *Open Magazine*, and *Scroll*.

— Wrote a monthly column in the Business Line's weekly magazine *BL Ink* on gender in India till Mar 2020.

#### Ongoing Translations

Translation of Unny R's novel *Prathi Poovankozhi*, from Amazon Westland, scheduled for 2021.

Translation of the short stories of Shihabudheen Poythumkadavu, Amazon Westland, scheduled for 2021.

### S. Irudaya Rajan

South Asia, the migration hub.DNA. January 15, 2019 <https://www.dnaindia.com/analysis/column-south-asia-the-migration-hub-2707872>

The state of the States. The Hindu. Opinion, February 12, 2019. (with U S. Mishra) <https://www.thehindu.com/opinion/op-ed/the-state-of-the-states/article26240864.ece>

The disenfranchised migrants August 30, 2019. (with Prasanth Singh) (<https://www.thehindu.com/opinion/op-ed/the-disenfranchised-migrants/article29300225.ece>)



Citizenship Amendment Bill carries the danger of making discrimination a formal part of India's refugee policy. July 25, 2019 (With Iswarya Subbiah) <https://indianexpress.com/article/opinion/columns/assam-nrc-deadline-extension-supreme-court-national-register-for-citizens-bjp-govt-5849364/>

S. Irudaya Rajan 2020. Virus and the migrant: India-Gulf region is second largest migration corridor, must not be blocked. March 17 2020 (With H Arokkiaraj) <https://indianexpress.com/article/opinion/columns/coronavirus-india-covid-19-gulf-countries-6317541/>

Coronavirus Outbreak Tests China's Goal to Be Higher Education Destination. March 13, 2020. (With H Arokkiaraj) <https://science.thewire.in/health/coronavirus-outbreak-tests-chinas-goal-to-be-higher-education-destination/>

### Tirtha Chatterjee

'Linking Farmers to Futures Markets in India,' ICRIER Working Paper No- 383. 2019. (with Raghunathan R. and Gulati, A)

'The Economics of a Plate of Food in India,' Letters to the Editor, Vol. 55, Issue No. 13, 28 Mar, 2020, <https://www.epw.in/journal/2020/13/letters/economics-plate-food-india.html>

### Thiagu Ranganathan

'Relative Educational Status and Women's Autonomy: Evidence from India'. 2020 (with Mendonca A)

### Udaya S. Mishra

'SDG Compliance of Maternal Mortality: A Cause of Concern or Celebration,' <https://science.thewire.in/health/sdg-compliance-of-maternal-mortality-a-cause-for-concern-or-celebration/>

### Vijayamohanan Pillai, N

'Energy Efficiency in Kerala,' *MPRA Working paper No. 97498*

'Economic Concept of Energy Efficiency,' *MPRA Working paper No. 97501.*

'Energy Efficiency Indicators: Estimation Methods,' *MPRA Working paper No. 97744.*

Working on a book on *A Topical Encyclopedic Dictionary of Econometrics*; I have completed the preliminary drafts on the following topics: (i) Anova and Ancova, (ii) Factor Analysis and (iii) certain sections in Regression, Time Series and Panel Data Analysis. I am also engaged in writing two more books, one on *Panel Data Analysis with Stata, EViews and Gretl*, and the other on *Historical Development of Economic Philosophy*

### Other Publications by Chairman/ Honorary Fellows

#### K.M. Chandrasekhar

- The Making of the Budget, <https://www.pennnews.net/opinion/2019/06/22/the-making-of-the-budget>. June 22, 2019.
- The Budget This Time, <https://www.pennnews.net/opinion/2019/06/29/the-budget-this-time>. June 29, 2019.
- The Future of Electric Vehicles, <https://www.pennnews.net/opinion/2019/07/06/the-future-of-electric-vehicles>. July 6, 2019.
- Budget 2019. <https://www.pennnews.net/opinion/2019/07/13/budget-2019>. July 13, 2019.
- Over to 2023, <https://www.pennnews.net/opinion/2019/07/19/over-to-2023>. July 20, 2019.
- Celebrating India's diversity, <https://www.pennnews.net/opinion/2019/07/27/celebrating-indias-diversity>. July 27, 2019.
- Uncertainty in the air. <https://www.pennnews.net/opinion/2019/08/03/uncertainty-in-the-air>. August 03, 2019.
- Whither Kashmir....? <https://www.pennnews.net/opinion/2019/08/10/whither-kashmir>. August 10, 2019.



- The Economic Crisis now and in 2008, <https://www.pennnews.net/opinion/2019/08/17/the-economic-crisis-now-and-in-2008>. August 17, 2019.
- Congress Party- To be or Not to be, <https://www.pennnews.net/opinion/2019/08/24/congress-party-to-be-or-not-to-be>. August 24, 2019
- Jaitley, Cancun and the WTO, <https://www.pennnews.net/opinion/2019/08/31/jaitley-cancun-and-the-wto>. August 31, 2019.
- The Economy, stupid, <https://www.pennnews.net/opinion/2019/09/07/the-economy-stupid>. September 07, 2019.
- Nine Eleven, <https://www.pennnews.net/opinion/2019/09/14/nine-eleven>. September 14, 2019.
- On Taxes and Cars, <https://www.pennnews.net/opinion/2019/09/21/on-taxes-and-cars>. September 21, 2019.
- BREXIT JITTERS. <https://www.pennnews.net/opinion/2019/09/28/brexit-jitters-2>. September 28, 2019.
- Left goes Right, <https://www.pennnews.net/opinion/2019/10/05/left-goes-right>. October 05, 2019.
- Gandhi and Mandela, <https://www.pennnews.net/opinion/2019/10/12/gandhi-and-mandela>. October 12, 2019.
- Plunging Demand, Flagging Economy, <https://www.pennnews.net/opinion/2019/10/19/plunging-demand-flagging-economy>. October 19, 2019.
- Research and Development, <https://www.pennnews.net/opinion/2019/11/02/research-and-development-falling-behind>. November 2, 2019.
- India's Lifeline, <https://www.pennnews.net/opinion/2019/11/09/indias-lifeline>. November 9, 2019.
- Babri Masjid Falls, <https://www.pennnews.net/opinion/2019/11/16/babri-masjid-falls>, November 16, 2019.
- The Constitution, the Government, the Governor and the Judiciary, <https://www.pennnews.net/opinion/2019/11/30/the-constitution-the-government-the-governor-and-the-judiciary>. November 30, 2019.
- On the Exercise of Constitutional Powers, <https://www.pennnews.net/opinion/2019/12/07/on-the-exercise-of-constitutional-powers>. December 07, 2019.
- Where Angels Fear to Tread, <https://www.pennnews.net/opinion/2019/12/14/where-angels-fear-to-tread>. December 14, 2019.
- Young India Rises, <https://www.pennnews.net/opinion/2019/12/21/young-india-rises>. December 21, 2019.
- The legacy of 2019. <https://www.pennnews.net/opinion/2019/12/28/the-legacy-of-2019>. December 28, 2019.
- The Lost Decade, <https://www.pennnews.net/opinion/2020/01/04/the-lost-decade>. January 04, 2020.
- Budget Ahoy ! ,<https://www.pennnews.net/opinion/2020/01/18/budget-ahoy>. January 18, 2020.
- Shirdi Shut Down, <https://www.pennnews.net/opinion/2020/01/25/shirdi-shut-down>. January 25, 2020.
- In Davos, Once and Only Once, <https://www.pennnews.net/opinion/2020/02/01/in-davos-once-and-only-once> . February 01, 2020
- Another Budget, <https://www.pennnews.net/opinion/2020/02/07/another-budget>. February 07, 2020.
- Déjà vu, Congress, <https://www.pennnews.net/opinion/2020/02/14/dj-vu-congress>. February 14, 2020.
- The Forgotten Seer, <https://www.pennnews.net/opinion/2020/02/28/the-forgotten-seer>. February 28, 2020.
- Floundering Banks, Flailing Economy, <https://www.pennnews.net/opinion/2020/03/07/floundering-banks-flailing-economy>. March 07, 2020.



- The Crisis that Won't Go Away, <https://www.pennnews.net/opinion/2020/03/13/the-crisis-that-wont-go-away>. March 13, 2020.
- The Virus Speaketh, <https://www.pennnews.net/opinion/2020/03/20/the-virus-speaketh>. March 21, 2020.
- The Stroke of Midnight. <https://www.pennnews.net/opinion/2020/03/27/the-stroke-of-midnight>. March 27, 2020.

### M.A. Oommen

#### Newspaper Articles

'Local Governance needs to be Bolstered', *Business Line*, May 9, 2019

'Kerala's Modernity and its Discontents', *The Hindu*, November 05, 2019

'Kerala Budget 2020 - Promising and Imaginative', *The Hindu*, February 08, 2020

#### Reports

'Modern Economic History Of Kerala: Roots And Perspectives', Sponsored by Kerala Council for Historical Research, Trivandrum (2019).

### K.P. Kannan

'Jobless Growth becomes more Systematic,' in *The Hindu*, July 12, 2019.

#### RULSG Papers/ Reports

K.K. Eswaran. 2019. 'Petty Production – A Survival Strategy and its Limits: Some observations on Kudumbashree's Productive Activities,' *Lateral Studies Series on Kudumbashree -4*, May.

Praveena Kodoth. 2019. 'How Kudumbashree Forged a Massive Network of Neighbourhood Groups: Micro Politics and the Strategies of Mobilisation of Women in Kerala,' *Lateral Studies Series on Kudumbashree -5*, May.

Saija Väyrynen, Darley Jose Kjosavik. 2019. 'Inclusive Development and Empowerment of Women: A Study of

Microfinance Programmes in Kerala, India,' *Lateral Studies Series on Kudumbashree -6*, May.

'Empowering Tribal Peoples, Deepening Democracy: An Advocacy Note for Strengthening Local Governments for the Effective Implementation of the Forest Rights Act in Kerala', *RULSG Advocacy Note*, February, 2020.

### (e) WORKING PAPERS

Anurag Anand. 2020. 'Economic Policy Reforms, Foreign Capital Flows and the Patterns of MNC Presence in India: Overall and Sectoral Shares,' *CDS Working Paper No. 493*, January.

Udaya Shankar Mishra and S. Irudaya Rajan. 2020. 'Resource Allocation in lieu of State's Demographic Achievements in India: An Evidence Based Approach,' *CDS Working Paper No. 492*, January.

Hrushikesh Mallick. 2020. 'Role of Governance and ICT Infrastructure in Tax Revenue Mobilization in India,' *CDS Working Paper No. 491*, January.

Sudip Chaudhuri. 2019. 'How Effective has been Government Measures to Control Prices of Anti-Cancer Medicines in India?' *CDS Working Paper No. 490*, December.

Sunil Mani. 2019. 'History Does Matter: India's Efforts at Developing a Domestic Mobile Phone Manufacturing Industry,' *CDS Working Paper No. 489*, October.

K. P. Kannan. 2019. 'India's Social Inequality as Durable Inequality : Dalits and Adivasis at the Bottom of an Increasingly Unequal Hierarchical Society,' *CDS Working Paper No. 488*, June.

Sunandan Ghosh, Vinod Abraham. 2019. 'The Case of the 'Missing Middle' in the Indian Manufacturing Sector: A Firm-Level Analysis,' *CDS Working Paper No. 487*, June.

Chandril Bhattacharyya. 2019. 'Unionised Labour Market, Environment and Endogenous Growth,' *CDS Working Paper No. 486*, May.





## (f) Commentary on India's Economy and Society Series

Manmohan Agarwal and Irfan Ahmed Shah. 2019. 'Monetary Policy Journey to Inflation Targeting,' *Commentary on India's Economy and Society Series No. 6*, April.

J. Devika. 2019. 'Gender-based Cyber Violence against Women in Kerala: Insights from Recent Research,' *Commentary on India's Economy and Society Series No. 7*, May.

G. Murugan. 2019. 'Swachh Bharat -2019: Will Rural India be ODF/SWACHH,' *Commentary on India's Economy and Society Series No. 8*, May.

K.P. Kannan, P.L. Beena, M. Parameswaran, Vinoj Abraham, G. Murugan, Udaya Shankar Mishra and Sunil Mani. 2019. 'Dimensions of Indian Economy: As Seen Through the Economic Survey 2018-19 and the Union Budget 2019-20,' *Commentary on India's Economy and Society Series No. 9*, August.

Sudip Chaudhuri. 2019. 'Are Medicine Prices High and Unaffordable after TRIPS? Evidence from Pharmaceutical Industry in India,' *Commentary on India's Economy and Society Series No. 10*, December.

Rajkumar Byahut, Sourish Dutta, Chidambaran G. Iyer and Manikantha Nataraj. 2020. 'World Development Report 2020: Trading for Development in the Age of Global Value Chains,' *Commentary on India's Economy and Society Series No. 11*, March.

M. Parameswaran, Thiagu Ranganathan, Sunil Mani, Sudip Chaudhuri, Manikantha Nataraj, Tirtha Chatterjee and Ritika Jain. 2010. 'Dimensions of Indian Economy: As seen through the Economic Survey 2019-20 and the Union Budget 2020-21,' *Commentary on India's Economy and Society Series No. 12*, March.

## (g) GOOGLE SCHOLAR CITATION

P.L. Beena



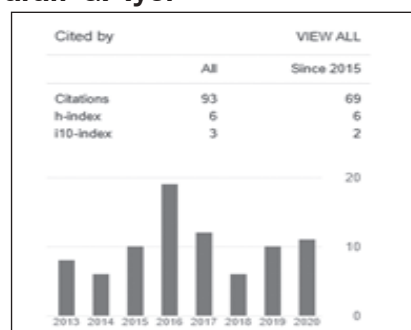
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### Chandril Bhattacharya



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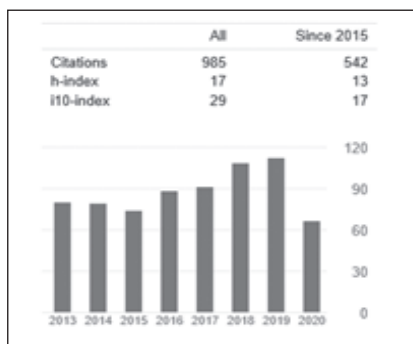
### Chidambaran G. Iyer



<https://scholar.google.com/citations?hl=en&user=47Hama8AAAAJ>

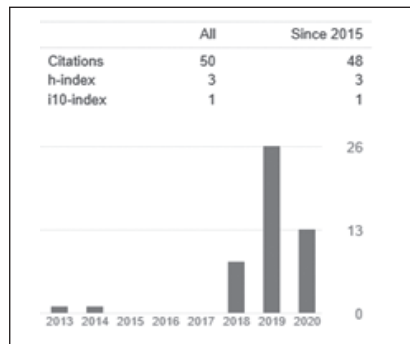


### J. Devika



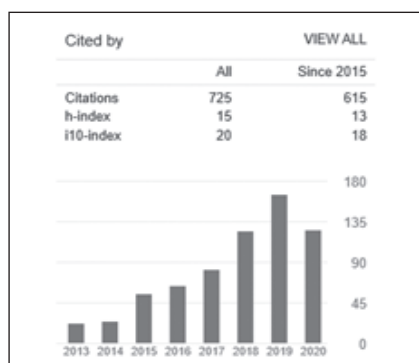
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### Jayaseelan Raj



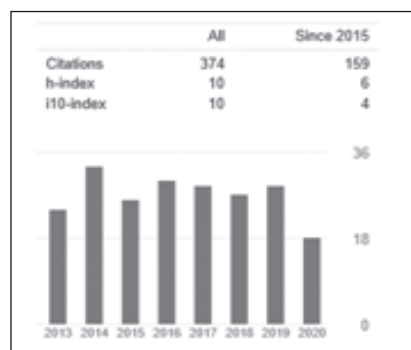
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### Hrushikesh Mallick



Source: <https://scholar.google.com/citations?user=tQnpUcwAAAAJ&hl=en>

### M. Parameswaran



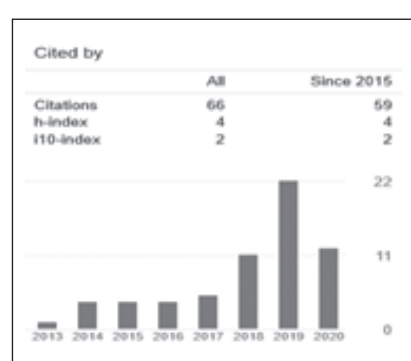
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### S. Irudaya Rajan

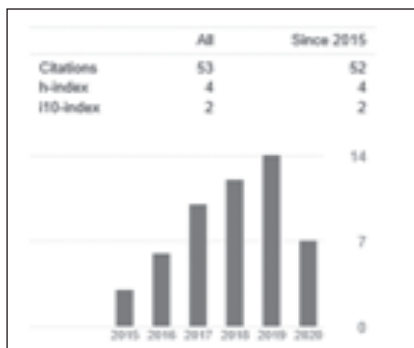


Source: <https://scholar.google.co.in/citations?user=Ks6HeZ8AAAAJ&hl=en>

### Ritika Jain



Source: <https://scholar.google.co.in/citations?user=-DGcDLcAAAAJ&hl=en>

**Srikanta Kundu**

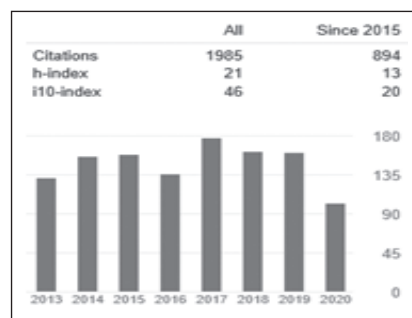
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**Tirtha Chatterjee**

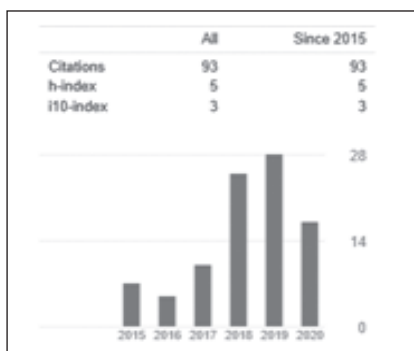
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**Sunil Mani**

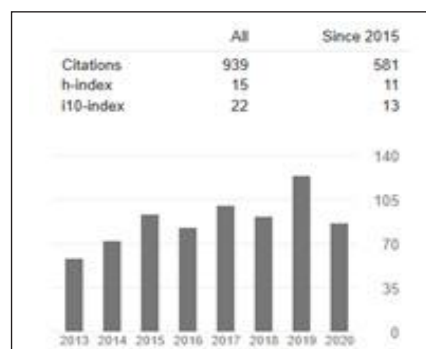
Source: <https://scholar.google.com/citations?user=r8iWpMcAAAAJ&hl=en&oi=ao>

**Udaya Shankar Mishra**

Source: <https://scholar.google.com/citations?user=Neqxl8AAAAJ&hl=en>

**Thiagu Ranganathan**

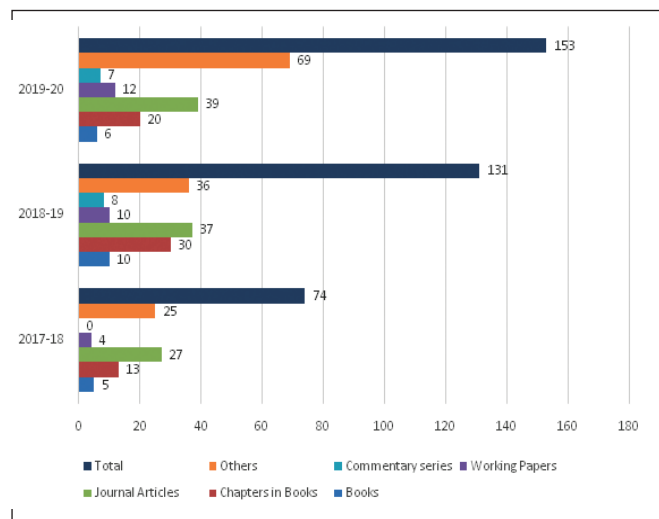
Source: <https://scholar.google.com/citations?user=9Cp50WQAAAAJ&hl=en>

**Vinoj Abraham**

Source: <https://scholar.google.com/citations?user=vQpypHIAAAJ&hl=en&oi=ao>



## Trends in Publications by CDS faculty from 2017-18 to 2019-20



## (B) SEMINARS AND WORKSHOPS HELD AT THE CENTRE

As part of its effort to disseminate the research activities, the Centre conducts a number of conferences, seminars, and workshops. Open seminars are given by faculty and researchers from other institutions from within the country as well as abroad. This year 15 open seminars were conducted. In addition to this, 16 seminars were given by the faculty and students. The CDS also organised several international, national seminars/conferences and workshops in addition to academic lectures and four public lectures.

### (a) Open Seminars

Jatinder Singh, Assistant Professor, CRRID, Chandigarh, *Internationalization of the Indian Car Industry: Some Insights*, (12 April, 2019)

Charles Alexis Cuvreur, D.Phil Scholar, University of Oxford, *The Making and Unmaking of the Coast in Thiruvananthapuram District: Erosion(S), Accretion(S) And New Development Trajectories*, (16 April, 2019)

A. Ravindra, former Chief Secretary-Karnataka & Former Chairman-ISEC, *Governing and Indian State*, (30 April, 2019)

Sukhpal Singh, Professor and Chairperson, Centre for Management in Agriculture, IIM, Ahmedabad. *Reforming Agricultural Markets in India: Experience and Policy Issues*, (3 May, 2019)

Sunil Kumar, Department of Social Policy, London School of Economics and Political Science, London, *The Urbanisation-Construction-Migration Nexus: Notes from Chennai, India*, (6 May, 2019)

Shyama Ramani, Professor, UNU-MERIT, Maastricht, The Netherlands, *To use or not to use? On the Dynamics of Rejection of Toilet Usage*, (18 July, 2019)

Grace Sunny, Professor of Economics, Collin College, Texas, *Full Employment: A Mirage in Kerala*, (16 August, 2019)

Sebastian Morris, Professor, IIM Ahmedabad, *Regional Development in India Today: The Issues and Challenges for a Transforming Economy*, (11 October, 2019)

Jose Sebastian, Gulati Institute of Finance and Taxation, *Imbalances in Kerala Finances: Implications for Equity and Public Resource Mobilization*, (29 November, 2019)

Sanjay Reddy, Associate Professor of Economics at the New School for Social Research., New York, *Development Economics for Whom? Randomization and Beyond*, (14 January, 2020)

Guilhem Fabre, Professor, at the Department of Chinese Studies at the Universite Paul Valery- Montpellier 3, France. *China's Economic Slowdown*, (16 January, 2020)

Guilhem Fabre, Professor, at the Department of Chinese Studies at the Universite Paul Valery- Montpellier 3, France. *China's R&D and Innovation Policies*, (21 January, 2020)

TV Paul, Professor, James McGill Professor of International Relations at the James McGill University, Canada and Visiting Professor at CDS. *India as a Rising Power: Opportunities and Constraints in the 21<sup>st</sup> Century*, (27 January, 2020)

Biswajit Dhar, Professor of Economics, Centre for Economic Studies and Planning School of Social Sciences, Jawaharlal Nehru University, *Assessing India's Free Trade Agreements with East Asian Countries*, (3 February, 2020)



Santhosh Kumar Mehrotra, Professor, Centre for Informal Sector and Labour Studies, Jawaharlal Nehru University, New Delhi. *Employment Trends in India in the 21<sup>st</sup> Century. What can be Done?* (11 February, 2020)

### **(b) Seminars by CDS Faculty/Students**

Manmohan Agarwal, RBI Chair Professor, CDS and Irfan Ahmad Shah, Doctoral Scholar, CDS, *Monetary Policy in India*, (5 April, 2019)

Jayaseelan Raj, Assistant Professor, CDS, *Egalitarianism and Resistance in Kerala's Plantation Frontier*, (2 May, 2019)

Abhilash T, Assistant Professor, CDS, *Reforming Colonial Relics? Reflections on the Draft Indian Forest Act, 1919*, (10 May, 2019)

Ritika Jain, Assistant Professor, CDS, *Is R&D Spending Influenced by Disinvestment and Local Political Corruption? The Case of Indian Central Public Sector Enterprises*, (25 June, 2019)

Susama Handsa, Doctoral Scholar, CDS, *Quality of Tribal Education and its Characteristics: A Study in Mayurbhanj District of Odisha at Primary Level with Using Primary Data*, (28 June, 2019)

J. Devika, Professor, CDS, *A Gendered History of the Rise of the Neo-Savarna in Twentieth Century Kerala*, (5 July, 2019)

Sunil Mani, Director and Professor, CDS, *History Does Matter, India's Efforts at Developing a Domestic Mobile Phone Manufacturing Industry*, (22 August, 2019)

Sudip Chaudhuri, Visiting Professor, CDS, *When and How Does Government Succeed and When and Why does Government Fail: Economic Policy Making in Pharmaceutical Industry in India*, (3 September, 2019)

Srikanta Kundu, Assistant Professor and Amartya Paul, Doctoral Scholar, *Effect of Economic Policy Uncertainty on Stock Market in Different Market Conditions: A Regime Switching Analysis for G-7 Countries*, (27 September, 2019)

S. Irudaya Rajan and Udaya Shankar Mishra Professors, CDS, *Fairness in Resource Allocation to States: Exploring the Population Dynamics*, (4 October, 2019)

Libitha, C Doctoral Scholar, CDS, *Intra-generational Income Mobility in India: Does Caste Matter?* (18 October, 2019)

Rimon Saha, Doctoral Scholar, CDS, *Patterns and Determinants of Expenditure on Human Priority Sectors: A Case of Indian States*, (23 October, 2019)

Amartya Paul, Doctoral Scholar, CDS, *Using Information and Technology to Improve Efficacy of Welfare Programmes: Evidence from a Field Experiment in India*, (8 November, 2019)

Vinoj Abraham (Professor) and Manikantha Nataraj (Doctoral Scholar), *On Measuring Participation in Global Value Chains: A Macro Approach*, (24 January, 2020)

Thiagu Ranganathan, Associate Professor, CDS, *Relative Educational Status and Women's Autonomy: Evidence from India*, (5 February, 2020)

Shraddha Jain, Doctoral Scholar, CDS, *Bargaining Over Care within Households: Case Studies of Women in Low Earning Occupations in the National Capital Region, India* (6 March, 2020)

### **(C) International / National Conferences / Seminars / Workshops / Discussions/ Lectures / Events**

**Teaching Innovations Programme for College Teachers in Economics (TIPE)** Under the K N Raj Training and Fellowship Programme, funded by the Government of Kerala and coordinated by Dr. Vinoj Abraham. March 18<sup>th</sup> –April 12<sup>th</sup> 2019.

#### **Lectures by Prof J.V. Meenakshi**

Prof J.V. Meenakshi, Professor, Delhi School of Economics delivered a series of lectures on the 'Methodology of Impact Evaluation' at the Joan Robinson Hall, CDS, during 10-12 April, 2019.





**Second Dr BR Ambedkar** Memorial Lecture on “Casteist Speech: Free Speech or Injurious Acts?” Coordinated by Dr Jayaselan Raj on 30 April, 2019.

**A Condolence meeting** in memory of Professor NR Madhava Menon, Former Chairman, CDS Governing Body, was held at the Baker auditorium on 8 May, 2019.

**Meeting of the RULSG** – Programme Advisory Committee, coordinated by Prof. J. Devika on 22 May, 2019 at the CDS.

**One Day Round Table** Discussion on “The Implementation of Forest Rights Act” coordinated by Prof J Devika, RULSG Unit, CDS on 3 June, 2019.

**Committee of Direction** Meeting of the CDS, and Programme Management Committee Meeting was held on 6 June, 2019 at the CDS.

**Second Round Table** Discussion on “The Implementation of Forest Rights Act” coordinated by Prof J Devika, RULSG Unit, CDS on 14 June, 2019.

**Third Round Table** Discussion on “The Implementation of Forest Rights Act” coordinated by Prof J Devika, RULSG Unit, CDS on 21 June, 2019.

**A Panel Discussion** on Indian Economy in the Context of Economic Survey 2018-19 and Union Budget 2019-20 was held in the Joan Robinson Hall on 17 July, 2019.

**Visit of diplomats** from the US Diplomatic Mission in India on 25 July, 2019.

**Meeting on Post Flood** Reconstruction of Kerala, held in the Governing Body Room, CDS on 26 July, 2019.

**Lecture** by Prof Amiya Bagchi, Emeritus Professor, IDS, Kolkata, on ‘What happened to the Arab Spring? A Political Economy Approach’ was held in the Baker Auditorium on 1 August, 2019.

**Lecture** by Prof R. Nagaraj, IGIDR, on the ‘The GDP Debate’ on the occasion of the inauguration of the new academic year held in the Baker Auditorium on 5 August, 2019.

**Lecture** by Prof. Rakesh Basant, IIM, Ahmedabad, on Leading through innovation and productivity growth –Policy Challenges for India at the Joan Robinson Hall on 6 August, 2019.

**Lecture** by Dr. Shinoj Parappurathu, PhD, ARS Senior Scientist, Socio-economic Evaluation and Technology Transfer Division, ICAR-Central Marine Fisheries Research Institute(CMFRI) on ‘Growth and Diversification of Indian Agriculture: Temporal and Spatial Patterns,’ at Joan Robinson Hall, CDS on 7 August, 2019.

**Meeting** of Administrative Reforms Commission held at the Academic Programme Committee Room (Library Committee Room) on 8 August, 2019.

**Meeting**-Indian Economy and Society Conference, at Academic Programme Committee Room (Library Committee Room) on 8 August, 2019.

**Ecological Orientation Programme** was held at the Baker Auditorium for the new students on 8 August, 2019.

**Lecture** by Dr Amit Basole, Azim Premji University, Bangalore, on ‘The Employment Question in India: Politics, Economics, and the Way Forward’ at the Joan Robinson Hall on 9 August, 2019.

**Workshop** on Agro biodiversity in Kerala was coordinated by Prof Sunil Mani and held in the Governing Body Room, on 21 August, 2019.

**Discussion** on ‘A Short Economic History of Kerala: An Approach,’ organised by the KCHR and held in the Academic Programme Committee Room (Library Committee Room), CDS on 29 August, 2019.

**Norwegian Group Visit** for the course on EDS387: State and Civil Society in Development and Environmental Governance in India, coordinated by Prof Vinoj Abraham at CDS from 2 September to 9 September, 2019.

**Governing Body Meeting** of CDS was held on 18 September, 2019.

**Training Programme** on EBSCO e-Resources, organised by the Chief Librarian, V. Sriram on 3 October, 2019.

**Meeting** organised by the Rubber Board, coordinated by Prof Vinoj Abraham, held at the Governing Body Room on 9 October, 2019.



**Second Meeting** of Administrative Reforms Commission held at the Academic Programme Committee Room (Library Committee Room) on 11 October, 2019.

**Gender Sensitization** Workshop – ICC Orientation programme for new students, was conducted and coordinated by Prof. Praveena Kodoth on 17 October, 2019.

**ICSSR Sponsored** Capacity Building Programme- 'Pathways of Social Research: A Methodological Training' for Doctoral Candidates of SC/ST and other Marginalised Groups was conducted between 21-25 October, 2019.

**Workshop on 'CORE: The Economy'** was organised by The Azim Premji University, in collaboration with CDS, for economics faculty of the affiliated colleges of the University of Kerala to introduce the participants to the textbook 'CORE: The Economy,' and involve them in the global community of teachers and researchers of CORE on 31 October, 2019.

**DBT Project-work** Discussion Week, coordinated by Prof US Mishra was held during 31 October to 4 November, 2019.

**A meeting** was held to discuss matters on the project on Kerala and the World Economy on 1 November, 2019.

**A Special Lecture** was held on the topic "RCTs and its Critics" by Dr Suraj Jacob, Visiting Faculty, Azim Premji University, on 4 November, 2019.

**Lecture** by Prof. Bhaven Sampat, Department of Health Policy and Management, Columbia University on TRIPS, Patents, and Drug Prices in India, on 5 November, 2019.

**Round Table** on 'The Strengthening of the Panchayaths in Kerala for the Effective Implementation of the Forest Rights Act' was held at the Centre for Development Studies (CDS) on 12 November, 2019. This was organised jointly by the CDS (RULSG Unit) and the Azim Premji University.

**Presentation Seminar** of RULSG-sponsored study from the series Ecological Challenges and Local Government Responses of study 'Who Wants to Conserve the Western Ghats? A Study of Resistance to Conservation, and Its Undercurrents in Karunapuram' on 25 November, 2019.

**CDS** observed November 26, 2019 as 'Constitution Day' or as, 'SAMVIDHAN DIVAS' as per the directives from Government of Kerala.

**Inauguration** of the Kerala Government-funded research programme on "International Migration from Kerala' by Shri Pinarayi Vijayan, the Hon'able Chief Minister of Kerala on 10 December, 2019.

**Meeting** organised by the Rubber Board, was held at the Academic Programme Room on 13 December, 2019.

**International research workshop** on Exploring Sovereignty and Charisma: Engagements, Contestations, and Fabulations from the Global South co-organized with Filippo Osella, Sussex Asia Centre, R Santhosh, IIT Chennai, and University of Toronto during 16-18 December 2019.

**JNU-CDS-CD Meeting** conducted on 13 January, 2020 at the Governing Body Room.

**The First Lecture** under the Fiftieth Foundation Year Lecture Series titled "Development Economics for Whom? Randomization and Beyond" was delivered by Professor Sanjay Reddy at the Joan Robinson Hall, CDS on 14 January, 2020.

**The Second Lecture** under the Fiftieth Foundation Year Lecture Series titled "China's Economic Slowdown" was delivered by Professor Guilhem Fabre at the Baker Auditorium, CDS on 16 January, 2020. Professor Guilhem Fabre is Professor at the Department of Chinese Studies at the Universite Paul Valery- Montpellier 3, France. The seminar was chaired by Professor Sunil Mani, Director, CDS.

**A Panel Discussion** on the 'World Development Report 2020: Trading for Development in the Age of Global Value Chains' was held at Joan Robinson Hall, CDS on 17 January 2020.

**Committee of Direction** Meeting of the Centre was conducted on in the Governing Body Room on 20 January, 2020.

**The Third Lecture** under the Fiftieth Foundation Year Lecture Series titled "China's R & D and Innovation Policies" was



delivered by Professor Guilhem Fabre at the Baker Auditorium, CDS on 21 January, 2020. Professor Guilhem Fabre is Professor at the Department of Chinese Studies at the Universite Paul Valery- Montpellier 3, France. The seminar was chaired by Professor Sudip Chaudhuri, Visiting Professor, CDS.

**The Fourth Lecture** under the Fiftieth Foundation Year Lecture Series titled “India as a Rising Power: Opportunities and Constraints in the 21st Century” was delivered by Professor T V Paul at the Baker Auditorium, CDS on 27 January, 2020. Professor Paul is James McGill Professor of International Relations at the James McGill University, Montreal, Canada and Visiting Professor at CDS.

**The Fifth Lecture** under the Fiftieth Foundation Year Lecture Series titled “Assessing India’s Free Trade Agreements with East Asian Countries” was delivered by Professor Biswajit Dhar, at the Baker Auditorium, CDS on 3 February, 2020. Professor Dhar is Professor of Economics, Centre for Economic Studies and Planning School of Social Sciences, Jawaharlal Nehru University, New Delhi.

**A National seminar** on “Kerala and the World Economy” was conducted at the Centre during February 3-4, February 2020. Prof AV Jose was coordinator of the seminar.

**Lecture** by Dr Smitha Francis, Institute for Studies in Industrial Development, New Delhi, on *Digital Transformations and India’s Catching Up Challenges: Towards an Economy-wide Approach*, (6 February, 2020)

**A seminar** on “Indian Economy and Society” was conducted at the Centre during February 7 and 8, 2020. Coordinated by Dr Abhilash.

**Teaching Innovation Programme** in Economics (TIPE) KN Raj Fellowship Training Programme for College Teachers, coordinated by Dr M Parameswaran from 10-21 February, 2020.

**Visit** of Professor Frances Woolley and Professor David Long, Carleton University, Ottawa, Canada, during February 10-18, 2020.

**The Sixth Lecture** under the Fiftieth Foundation Year Lecture Series titled “Employment Trends in India in the 21 Century: What Can be Done” was delivered by Professor Santosh Mehrotra, at the Baker Auditorium, CDS on 11 February, 2020. Professor Mehrotra is Professor at the Centre for Informal Sector and Labour Studies, Jawaharlal Nehru University, New Delhi. Prof Sunil Mani, Director, CDS chaired the lecture.

**K.N. Raj Memorial Day:** As part of the Fiftieth Foundation Year, and also to perpetuate the memory of the Centre’s founding fathers, a compiled collection of their papers was released on 17th February, 2020, followed by a talk by Geetha Sen, Director & Distinguished Professor, Ramalingaswami Centre on Equity & Social Determinants of Health (RCESDH), Public Health Foundation of India, Bangalore, which reflected on the contribution of Prof Raj.

**A Panel Discussion** on the Indian Economy in the context of the Economic Survey 2019 -20 and the Union Budget 2020-21 by the faculty of CDS was held on 25 February 2020.

#### (d) Public Lectures

Professor Robin Jeffrey (Visiting Research Professor at the Institute of South Asian Studies, Singapore) delivered the Tenth BG Kumar Memorial Lecture on “Swachh Bharat? Swachh World? Garbage and Pollution on a Growing Planet,” on 4 September, 2019 at the Baker Auditorium, CDS.

Professor T.T. Ram Mohan (Professor, Finance & Accounting IIM, Ahmedabad) delivered the Ninth P.K. Gopalakrishnan Memorial Lecture on “India’s Banking Crisis in Perspective,” at the Baker Auditorium CDS on 20 September, 2019.

Professor Ashoka Mody (Charles and Marie Robertson Visiting Professor in International Economic Policy at the Woodrow Wilson School, Princeton University) delivered the Eighth Foundation Day Lecture on “India: from Promise to Hubris” at the Baker Auditorium CDS on 1 November, 2019.

Professor Gita Sen (Director & Distinguished Professor, Ramalingaswami Centre on Equity & Social Determinants of Health (RCESDH), Public Health Foundation of



India, Bangalore) delivered a lecture on 'Reflections on the Contribution of Professor Raj' to commemorate the memory of KN Raj on 17 February, 2020.

## (C) NETWORKING

### (a) Participation of Faculty in Conferences / Seminars Elsewhere

#### Outside India

##### Abhilash, T

- Presented a paper on 'Continuing Colonial Relics? Colonial hegemonic legislations and the question of Indigenous Self-rule in India,' at the *"End of Western Hegemonies?"* - The Second International conference by the West Network, University of Jyväskylä, Finland, 5-7 June, 2019.
- Presented a paper on 'Western Neo-liberalism and Adivasi selfrule: Experiences from India's tribal heartland,' at the *"End of Western Hegemonies?"* - The Second International conference by the West Network, University of Jyväskylä, Finland, 5-7 June, 2019.
- Speaker in the Round Table: "The Future of the Local in the Era of Global," at *End of Western Hegemonies?"* The Second International Conference by the West Network, University of Jyväskylä, Finland, 5-7 June, 2019.

##### Hrushikesh Mallick

- A coauthored work was presented on 'Do Socio-economic Attributes of Households Influence Trust Levels on Institutions of India? A Temporal Assessment from a Developing Country Perspective,' at *5<sup>th</sup> SANEM Annual Economist Conference* on Institutions for Development held at Dhaka, Bangladesh on 1<sup>st</sup> February, 2020.

##### S. Irudaya Rajan

- Visited International Institute for Social Studies, Hague, to discuss the findings of 'Kerala Migration Survey 2018,' on April 3, 2019.

- Visited Department of Humanities and Social Sciences, Birla Institute of Technology & Sciences, Pilani, Dubai campus and delivered a lecture on 'Diaspora, Disaster and Development to Department of Humanities and Social Sciences,' on August 25, 2019.
- Participated in the International Workshop on Integration Policy and Research on Ageing in ASEAN: Conversations Across the Policy and Research Divide, supported by Economic Research Institute of ASEAN and East Asia, held at Centre for Aging Research and Education, National University of Singapore, during September 4-6, 2019.
- Visited School of Social Sciences, Monash University, Melbourne, to discuss the project with A Dharmalingam on 'Indian Migrants in Australia,' during September 23-24, 2019.
- Attended the 12<sup>th</sup> South Asia Economic Summit on 'Shaping South Asia's Future in the Fourth Industrial Revolution,' and participated as a resource person in the session on 'Managing Labour Migration in 4IR,' held at Hilton, Colombo during September 25-26, 2019.
- Visited Department of Humanities and Social Sciences, Birla Institute of Technology & Sciences, Pilani, Dubai campus and delivered a lecture on 'The Contributions of Indian Diaspora to Sustainable Development Goals: Perspectives from the Countries of Origin and Destination,' on October 24, 2019.
- Participated in the Regional Consultation on Root Causes and Drivers of Migration organised by the Migrant Forum Asia and led a session on 'Development and its Implications on Human Rights,' held at Heritance Negombo, Colombo, Sri Lanka on October 29-30, 2019.
- Chaired a session on 'Remittances and Diaspora resources at KNOMAD 1.2 Expert Meeting,' organised by the World Bank at Washington during November 7-8, 2019.



- Participated in the inaugural Global Conference, 'Migration 2030: Challenges and Opportunities for Canada and the World,' organised by the Canada Excellence Research Chair in Migration and Integration, at Ryerson University, Toronto, Canada during February 20-21, 2020 and delivered a talk on 'Migration and Development: Policy Narratives from an Indian Perspective'.

### **Sudip Chaudhuri**

- Presented a paper 'Promoting Sustainable Local Production of Pharmaceuticals in Africa,' at the *Africa Forum 2019*, organised by UNDP and others, at Dar-es-Salaam, Tanzania during 18-19 July, 2019.
- A paper titled 'Policies for Promoting Local Pharmaceutical Production in LDCs,' was presented at *Regional Dialogue: Ensuring Sustainable Access to Medicines in Least Developed Countries in the Asia-Pacific Region*, Bangkok, Thailand during 18-19 July, 2019.
- Presented a paper on 'Designing Effective Government Policies: Lessons from Pharmaceutical Industry in India' at Research Workshop, Pharmaceuticals and Development in Global South, Global Development Institute, University of Manchester, during 31 October – 1 November, 2019.

### **Sunil Mani**

- Presented a paper titled, 'India's participation in GVCs in a high technology industry, Case of the mobile phone manufacturing industry,' at First Conference on Micro-dynamics, Catching-Up and Global Value Chains, ICRIOS - Bocconi University - Milan, Italy, November 20-22, 2019.
- Presented a paper titled, 'Dimensions of India's Intellectual Property Right System,' at the conference IP Statistical Analysis for Assessing Technological Catching Up of China, India and Thailand, organised by University of Tokyo at Bangkok, March 1-2, 2020 (presentation via Zoom).

### **In India**

#### **Abhilash, T**

- Delivered a special Lecture on 'Caste, Class and Gender: Exploring the realities of Indian Democracies,' in the National Seminar under the auspicious of Department of Political Science and Public Administration, at St. Johns College, Anchal, Kerala during December 2-3, 2019.
- Presented a paper 'Strengthening Agriculture and Allied Sector Contributions to India's National Biodiversity Action Plan (NBAP) 2008 and National Biodiversity Targets (NBTs)' at the Final National Workshop on Mainstreaming Agro biodiversity ('FAO-TCP PROJECT) at UN Hall, New Delhi on December 16, 2019.
- Delivered the Key note speech on 'Negotiating Rights with Parallel Structures: Issues of Forest Right Act Implementation in Mannan and Malai Pandaram Settlements in Kerala,' at the National Conference on Democracy, Land and Resource Management Rights of Adivasis and Challenges of Strengthening Adivasi Grama Sabhas in Kerala & 5<sup>th</sup> Community Forest Resources (CFR) Kerala Conference, 2019, organised by: MES Asmabi College, Kodungallur, Kerala, on December 18-19, 2019.

#### **Beena P.L.**

- Presented a paper 'Business Distress in Kerala: A Case Study of Chendamangalam Handloom Industry' in a seminar on "Society, Polity and Economy of Kerala: Shifting Paradigm after Flood," organised by Public Policy Research Institute, Trivandrum, April 26, 2019.
- A paper titled 'Growth Dynamics of Handloom Industry: A Case Study of Chendamangalam Handloom Co-operative Society,' and 'Cooperative Alternative: Spatial comparisons,' was presented along with Kavitha P, at National conference held at Kannur University, Kerala, India, during May 6-7, 2019.





- Presented a paper 'IPR Institutions, Innovation activities and Developmental Implications in Indian industries,' at Kerala University, June 2019 along with Siddik Rabiyyath.
- Presented a paper jointly with Siddik Rabiyyath titled 'IPR Institutions, Innovation activities and Developmental Implications of IP Asset Intensive Industries,' in a conference on "Technology and Economy", XIV Annual Conference of Global Knowledge Sharing forum (Knowledge Forum), IIT Madras, October 11-13, 2019.
- Paper presented titled 'Structure, Direction and Export contribution of Kerala State: With special reference to Cochin special Economic Zone,' in a conference organized by CDS on the theme "Kerala and the World Economy" during February 3-4, 2020.

### Chandril Bhattacharyya

- Presented the paper titled 'Union, Efficiency of Labour and Endogenous Growth,' in the 56<sup>th</sup> Annual Conference of the Indian Econometric Society (TIES) organised by The School of Economics, Madurai Kamaraj University, Madurai during January 8-10, 2020.

### Chidambaran G. Iyer

- Presented the Study 'Reforms Required to Spur Investment in Mobility' at NITI Aayog on 3 October 2019.
- Attended the Technical Stakeholders Consultation 'Nammal Namukkayi', organised by Re-build Kerala Initiative, Kerala State Disaster Management Authority, and C-DIT, on January 29-30, 2020 at Thiruvananthapuram.

### J. Devika

- Presented a paper titled 'A Gendered History of the Rise of the Neo-Savarna in Twentieth Century Kerala,' on 5 July, 2019 at an open seminar conducted at

CDS. A refined version to appear in a volume edited by N Mannathukaren and Y Arafat, forthcoming from Routledge, India.

- Presented a paper 'A Gendered History of the Neo-Savarna in Kerala' at the Eighth Annual Conference of the Backwaters Collective on Metaphysics and Politics, held at the Le Meridian, Kochi during July 25-28, 2019.
- Chaired the symposium (Chairperson's comments) at the National Symposium on Translation: A Bridge between Cultures, Kendra Sahitya Akademi, held at New Delhi on September 30, 2019.
- Paper presented a paper titled 'Female Modernism? Madhavikkutty in the Malayalam Modernist Homoaesthetic Circles' at the seminar on *Legacy of Modernism: Ruptures and Continuities*, sponsored and held at Krishna Menon Memorial College for Women, Kannur on November 20, 2019.
- Delivered the Inaugural address at the national seminar on Contemporary Women's Literature in Arabic held at the Department of Arabic, University College, Thiruvananthapuram on November 27, 2019.
- Delivered the Inaugural address at the International Seminar at on Gender Fault lines and New Feminisms, conducted at The Zamorin's Guruvayoorappan College, Kozhikode on December 10, 2019.

### S. Irudaya Rajan

- Attended the meeting organised by the Fifteenth Finance Commission at their office in Delhi to present the progress of the study funded by the Finance Commission at New Delhi on April 25, 2019.
- Attended the Expert Committee meeting at IIPS on 'Population Projections of the Ministry of Finance, Government of India' on May 2, 2019.
- Participated in the third meeting of the Technical Group on Population Projections organised by the



Registrar General of India and Census Commissioner, held at New Delhi, on May 3, 2019.

- Participated as a lead Panelist in the session on Aging Population and Global Macroeconomic Stability of the ICRIER's 11th Annual International G20 Conference titled 'Global Cooperation for Inclusive Growth: Views from G20 Countries', held at India Habitat Centre, New Delhi, during May 30-31, 2019.
- Participated in the panel discussion at Migration Museum organised by the Godrej India Culture Lab, at Mumbai on June 8, 2019.
- Participated as a Chief Guest at the International Seminar on 'Mobility in Search of Livelihood – The Migratory Dynamics of Kerala' – held at PSMO College, Tirurangadi, jointly organised by the NORKA Roots on June 10, 2019.
- Participated in the State Level Consultation on Sustainable Development Goals organised by the International Justice Mission and Institute for Sustainable Development and Governance at Trivandrum Hotel and spoke in a panel discussion on 'Sustainable Development Goals and Migration,' on June 11, 2019.
- Participated at the meeting organised by the National Institute of Education Planning and Administration to discuss the 'India Higher Education Report 2020' on June 20, 2019 at New Delhi.
- Participated as a resource person (Demography, Labour and Migration) at a Workshop on State Level Statistics in Kerala, organised by the Kerala State Planning Board held at Hotel Mascot on July 2, 2019.
- Participated in the Seminar on 'Sharing of Good Practices on Migration Governance,' organised by the International Labour Organization, International Centre for Migration Policy Development and India Centre for Migration, held at India Habitat Centre, New Delhi on July 10, 2019.
- Participated as Panel Member on a Round Table on 'Kerala Economy and Society' organised by the United States-India Educational Foundation, held at Hotel Le Meridien, Kochi on Wednesday, July 17, 2019.
- Participated in the meeting organised by the Non-Resident Keralite Affairs Department, Government of Kerala in Connection with Second Loka Kerala Sabha at Government Guest House, Trivandrum on July 19, 2019.
- Attended the first Task Force meeting on Migration organised by the Federation of Indian Chambers of Commerce and Industry, held at the Federation House, New Delhi on July 22, 2019.
- Moderated the learning circle meeting on 'Migration and Family Planning' in Bihar organised by the Population Council and David & Lucile Packard Foundation on August 19, 2019 at New Delhi.
- Participated in the fourth meeting of the Technical Group on Population Projections organized by the Registrar General of India and Census Commissioner, held at New Delhi, on August 22, 2019.
- Participated as a resource person and spoke on the conduct of large-scale migration surveys to the participants of the Research Methodology Course organised by the Council for Social Development, Hyderabad, on August 27, 2019.
- Lead presentation at the shareholder meet on Safe and Legal Migration organised by the Ministry of External Affairs, Government of India and NORKA, Government of Kerala, held at Mascot Hotel on August 29, 2019.
- Participated in the brainstorming Workshop on Prioritizing Ageing Research in India organised by the International Institute for Population Sciences, Mumbai, with the support from United Nations Fund for Population Activities, held during September 16-17, 2019.



- Participated in the National Seminar on Population, Health and Environment organised by G B Pant Social Science Institute, Allahabad, financed by the Indian Council for Social Science Research, and spoke on Migration, education and employment during September 20-22, 2019.
- Participated in the second meeting organised by the Non-Resident Keralite Affairs Department, Government of Kerala in Connection with Second Loka Kerala Sabha at Government Secretariat on October 10, 2019.
- Plenary Speaker at the National Seminar on Population Ageing in Kerala organised by Dr Ramakumar Memorial Centre for Population Ageing and Health, Department of Demography, University of Kerala, on October 11, 2019.
- Delivered Key note address at the National Seminar on Demography and Development: The Missing Link organised by the Government Arts and Science College, Calicut, on October 15, 2019.
- Participated in the Panel Discussion on Refugees and Migration – ‘Why, How, and What Should be Done?’ at Karavaan Enclave organised by the Indian Institute of Science Education and Research (IISER), Pune on October 17, 2019.
- Participated as a discussant at the International Seminar on Twenty-Five Years of National Family Health Survey in India: Lessons Learnt and Way Forward, organised by the International Institute for Population Sciences, held at India Habitat Centre during October 18-19, 2019.
- Visited Indian Institute of Technology, Hyderabad, and interacted with the faculty and students of the Department of Liberal Arts on the theme, Migration and Development during November 1-2, 2019.
- Participated in Kudumbashree-KILA-National Workshop on Elderly Friendly Communities- and spoke in the technical session on Demographic Transition in Kerala during November 19-20, 2019.
- Participated in the Panel Discussion on ‘Population Census: Learning from 2011 and Challenges for 2021,’ organised by National Statistical Systems Training Academy, Ministry of Statistics and Program Implementation, Government of India, New Delhi on November 25, 2019.
- Participated in the conference on the Political Economy of Migration organised by the Pune International Centre, Gokhale Institute of Politics and Economics, India Development Foundation and Mumbai School of Public Policy held at Pune, during December 13-14, 2019 and spoke on the politics of internal migration.
- Participated in the International Workshop on Influencing Last Mile in Disaster Risk Reduction (DRR) - Evidence Based Lessons from the Communities’ organised by the School of Climate and Disaster Studies of Centurion University of Technology and Management (CUTM), Odisha and spoke on Kerala Floods and Migration during December 20-21, 2019.
- Participated as a delegate in the second Loka Kerala Sabha organized by the Government of Kerala during January 1-3, 2020.
- Delivered Key note address at the National Conference on Migration and Social Inclusion: Perspectives for Human Rights and Social Work Practice, held at Rajagiri College of Social Sciences, Kochi, during January 9-10, 2020.
- Participated in the 9<sup>th</sup> Federation of Jesuit Alumni Association of India meeting held at St. Joseph’s College, Tiruchirapally, Tamil Nadu and delivered a talk on ‘India’s Role in International Migration’ during January 17-19, 2020.
- Participated in the first advisory committee of the UNICEF-IIPS project on ‘Protection of children affected



by seasonal migration in Jalna district, Maharashtra,' held at IIPS, Mumbai on January 22, 2020.

- Delivered key note address at the National Conference on Issues and Challenges of Women Working in the Unorganized Sector of India organised by the Department of Economics, Holy Cross College, Trichirapalli on January 23, 2020.
- Participated in the Two-Day Regional Conference on Towards Peace, Harmony and Happiness: Transition to Transformation organised by Pranab Mukherjee Foundation, New Delhi, Centre for Research in Rural and Industrial Development (CRRID), Chandigarh and Population Research Centre (PRC), Institute for Social and Economic Change (ISEC), Bengaluru and spoke on 'Health Transition and Transformation in Kerala' on January 24, 2020.
- Participated in the Think Tank meeting as well as an International Seminar on Building Intergenerational Care for Active and Healthy Ageing, on 30th and 31st January 2020 at Prasanna School of Public Health Manipal Academy of Higher Education, Manipal.
- Participated in the panel discussion on 'Rights of South Asian Migrant Workers in the Middle East' at the conference on Human Rights Dimensions of Citizenship and Rights of Migrants organised by the Centre for Human Rights of the Jindal Global Law School and Commonwealth Human Rights Initiative held at the O P Jindal Global University, Sonapat, Haryana, during February 4-5, 2020.
- Delivered a key note address at the International conference on the 'Future of Healthy Ageing: Policy and Practice for a decade and beyond' organised by the Central University of Kerala and Brunel University, London, held at Central University of Kerala, during February 13-14, 2020.

### Jayaseelan Raj

- Participated in the International Conference on Labour and Work, organised and conducted at OP Jindal University on September 23, 2019.

- Presented a paper 'Labour at the Margins: Inclusion and Non-Discrimination,' at the Institute for Human Development and ILO, New Delhi during January 27-28, 2020.

### M. Parameswaran

- Presented a paper at 61<sup>st</sup> Annual Indian Society of Labour Economics Conference held at Patiala, Punjab, during December 7-9, 2019.
- Presented a paper at 'Conference on Kerala and World Economy,' held at Centre for Development Studies, during February 3-4, 2020.

### Praveena Kodoth

- Presented a paper titled 'Good Family, Bad Family: Ideals of Family in Kerala and their Pathologies' at the International Seminar on Family, Private Property and the State: Kerala Experiences with Feminism, during November 13, 15, 2019.
- Chaired a pre-conference session on 'Women's Studies at a Cross Road: Teaching and Researching Gender at Diverse Institutional Sites,' at the Indian Association of Women's Studies XVI National Conference on Women's Studies, held at the National Law University on January 27, 2020.

### Ritika Jain

- Presented 'Do job reservations hurt firm performance? Job reservations, disinvestment and firm performance of public sector enterprises in India' (coauthored with Prof Abraham) on November 28, 2019 in IIT Delhi-HUSS department.
- Presented 'Do Job Reservations Hurt Firm Performance? Job Reservations, Disinvestment and Firm Performance of Public Sector Enterprises in India' (coauthored with Prof Abraham) on December 16, 2019 in Presidency University, Economics department, Kolkata.
- Gave Two sessions on Indian public sector for PhD students in GIFT, Trivandrum on March 7th, 2020.



### Sudip Chaudhuri

- A paper 'Impact of Product Patents on Pharmaceutical Market Structure and Prices in India', was presented at Meeting on DPCO Amendments and Trade Margins: Implications and Challenges, organized by MSF Access Campaign, New Delhi, April 27, 2019.
- Presented a paper 'When and How Does Government Succeed and When and Why does Government Fail: Economic Policy Making in the Pharmaceutical Industry in India', at CDS on September 3, 2019.
- Presented a paper 'How Effective has been Government Measures to Make Anti-Cancer Medicines more Affordable in India', at National Consultation on Access to Medicines, Pricing and Transparency, Third World Network and MSF Access Campaign during September 13-14, 2019, New Delhi.
- Presented a paper 'Government Intervention and Markets', at Discussion on the Economic Survey 2019-20 and Union Budget 2020-21, CDS, February 25, 2020.

### Srikanta Kundu

- Presented the research article titled 'Risk and Return Spillover: Does Liquidity of Stock Market Play A Role? Evidence from US, UK and INDIA' in 56<sup>th</sup> Annual Conference of The Indian Econometric Society (TIES), School of Economics, Madurai Kamaraj University, Madurai on December 8, 2019.
- Presented the research article titled 'Effect of Economic Policy Uncertainty On Stock Market In Different Market Conditions: A Regime Switching Analysis for G-7 countries,' in XXIX<sup>th</sup> Annual Conference on Contemporary Issues in Development Economics, on December 16-17, 2019, Department of Economics, Jadavpur University, Kolkata.
- Presented the research article titled 'Does Economic Status Matter in the Relationship among Democracy, Macroeconomics and Happiness? A Threshold Panel Analysis,' in XXIX<sup>th</sup> Annual Conference on

Contemporary Issues in Development Economics on December 16-17, 2019 at Department of Economics, Jadavpur University, Kolkata.

### Sunil Mani

- Was Discussant to a paper on 'Contrasting Pattern of Development: Case Studies of Selected States – Tamil Nadu, Kerala and Gujarat,' at the National Conference on Growth and Regional Development in India: Recent Experiences and Emerging Perspectives, organised by Institute of Human Development, New Delhi, May 13-15, 2019.
- Presented a paper titled, 'Diffusion of Automation Technologies and Their Potential And Actual Effects On Manufacturing Employment in India,' at the 3rd Cyber-Physical Systems Symposium, Indian Institute of Science, Bangalore, July 15-16, 2019.
- Presented a paper titled, 'Manufacturing and Automation' at the Interim Workshop on Jobs and Growth, Indira Gandhi Institute of Development Research, Mumbai, Interim Workshop on Jobs and Growth, Indira Gandhi Institute of Development Research, Mumbai, July 19-20, 2019.
- Discussant to the book, *The Technology Trap* by Carl Benedikt Frey, organised by IDFC Institute and ICRIER at Mumbai on August 29, 2019.
- Presented a paper on 'Policy Implications of The Diffusion of Automation Technologies In India's Manufacturing Sector for Manufacturing Employment,' at the dissemination seminar on Jobs and Growth, organised jointly by the Department of Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, the Ministry of Skill Development and Entrepreneurship, and Indira Gandhi Institute of Development Research (IGIDR), Mumbai at India International Centre on October 22, 2019.
- Participated as an invited expert at the meeting of the drafting committee for Technology-led-Innovation Policy (TLIP) framework 2020 at Department of





Science and Technology, New Delhi, January 11, 2020.

- Delivered the Dr P K Gopalakrishnan Memorial Lecture on 'Technological Disruption of The Labour Market, What is the Empirical Evidence for India's Manufacturing Sector ?' at the 32<sup>nd</sup> Science Congress, Kerala State Council for Science, Technology and Environment, Palghat, January 25, 2020.
- Participated in the Selection Committee Meeting for Faculty, IIT- Delhi, January 28, 2020.

### **Thiagu Ranganathan**

- Presented a paper along with Rajoriya B, titled 'Social Networks, Memberships, and Occupational Mobility in India: Findings from Indian Human Development Survey (IHDS)' at the Indian Society of Labour Economics held at on December 7-9, 2019.
- Presented a paper titled 'Relative Education and Women's Autonomy,' at seminar held at the Centre for Development Studies on 5 February, 2020.
- Panel Member at the 'Discussion on Economic Survey 2020' held at the Centre for Development Studies on 25 February, 2020.

### **Udaya Shankar Mishra**

- Key Note speaker at the Plenary Session of the 52<sup>nd</sup> Annual Conference of Orissa Economics Association held on February 8-9, 2020.

### **N. Vijayamohanan Pillai**

- Expert in the screening committee of Inter University Centre for Alternative Economics for the selection of Researchers under Short Term Project, 2019, at Department of Economics, University of Kerala, Kariavattom on May 30, 2019.
- Attended as an Expert in the screening committee of Inter University Centre for Alternative Economics for the selection of Researchers under the Associate

Research Programme 2019 on May 30, 2019 at Department of Economics, University of Kerala, Kariavattom.

- Attended as the guest of honor/expert reviewer in the Dissemination Seminar for Internships/ Associateships/Projects, organized by the Inter University Centre for Alternative Economics, at Department of Economics, University of Kerala, Kariavattom June 17, 2019.
- Attended as an Expert in the screening committee of Inter University Centre for Alternative Economics for the selection of Research Associate at Department of Economics, Kariavattom on June 18, 2019.
- Attended the one-day seminar on 'Review of Energy Efficiency Policy Framework', organized by the World Institute for Sustainable Energy (WISE) and supported by the Shakti Sustainable Energy, at Energy Management Centre (EMC), Trivandrum, on July 4, 2019.
- Attended the One-Day Workshop on 'Building Innovation in India – BIGathon,' organized by the Energy Management Centre (EMC), Trivandrum, in partnership with Lawrence Berkeley National Lab (LBNL), USA, at EMC, Trivandrum, on July 30, 2019.
- Presented the keynote paper on 'GDP Estimation and Economic Growth: A Review of Indian Experience,' at the National Conference on "The History and Mystery of GDP Calculations in India", organised by the Department of Applied Economics, Cochin University of Science and Technology, Kochi, on August 3, 2019.
- Presented a paper on 'Randomized Controlled Trials: Understanding the Whats and the Hows,' at seminar on "Nobel Prize in Economics 2019: Reflections on the Laureates' Contributions", organized by the Gulati Institute of Finance and Taxation (GIFT), Trivandrum, on October 26, 2019.
- Presented the final Report of the CDS-EMC Project on 'Energy Productivity: A Sectoral Analysis for Kerala',



(financed by Energy Management Centre (EMC), Trivandrum) at the conference hall of EMC, Trivandrum on November 28, 2019.

### **Vinoj Abraham**

- Presented a paper on 'Women's Labour-force Participation in the Context of Changing Demographic Structure in India,' at One-Day National Seminar on Second Demographic Dividend, Malabar Christian College, November 4, 2019.
- Presented the paper 'An Analysis of the Unemployment Challenge and India's Policy Response,' at the Workshop on India Development Report 2020 at IGIDR, Mumbai on November 29, 2019.
- Presented the paper 'An Analysis of the Unemployment Challenge and India's Policy Response,' at the Indian Society of Labour Economics 61<sup>st</sup> Annual Conference organised by Indian Society of Labour Economics and Panjabi University, Patiala during December 6-9, 2019.
- Presented the paper 'An Analysis of the Unemployment Challenge and India's Policy Response,' at the Two-day International Conference on Economic Development: Role of Higher Education Institutions in Employment, organised by Institute of Public Enterprise (IPE), Hyderabad during December 10-11, 2019.
- Panel Moderator on the topic 'State and Labour,' at Symbiosis, Annual event at Christ University, Bengaluru on December 13, 2019.
- Panelist on the panel 'Informal Employment and Social Security,' at Symbiosis, Annual event at Christ University, Bengaluru on December 13, 2019.

### **Participation of Honorary Fellows in Seminars, Conferences, Workshops**

#### **M.A. Oommen**

- Participated in Consultative meeting on 'Modern Economic History Of Kerala: Roots And Perspectives,'

held at Centre for Development Studies, Trivandrum on August 29, 2019.

- Keynote address on 'Education in Retrospect' delivered at the Alumni Meet in connection with the Centenary Celebrations of Marthoma Higher Secondary School at MTHSS, Venmony on December 28, 2019.
- Keynote address on 'Regional Development: Kerala's Challenges', delivered at the Colloquium on 'Regional Development: Kerala's Challenges' at Inter University Centre for Social Science Research and Extension & Mahatma Gandhi University, Kottayam, held on January 13, 2020.
- Public lecture on 'Constitution and the Centre-State Economic Relations' delivered at Chintha Publications, Near AKG Centre, Trivandrum held on January 24, 2020.
- Keynote address on 'Economic Survey 2019-20 & Union Budget 2020-21' delivered at the seminar on 'Economic Survey 2019-20 & Union Budget 2020-21' jointly organised by Post Graduate Departments of Economics and Commerce, University of Kerala and Gulati Institute of Finance and Taxation, at GIFT Auditorium, on February 06, 2020.
- Participated in the 'Conclave on issues relating to 15th Finance Commission' held on March 07, 2020.

### **Participation of Students in Seminars, Conferences, Workshops**

#### **C.S. Akhil**

- Presented a paper 'Return, Rehabilitation and Reintegration of Labour Emigrants in Kerala'; at the Seminar on Kerala and the World Economy organised by CDS during February 3-4, 2020. (with S. Irudaya Rajan and V.C. Sabeer)

#### **Kashif Mansoor**

- Presented a paper titled 'An Analysis of Occupational Segregation among Religious Groups in India,' in



Advanced Graduate Workshop on Poverty, Development and Globalisation, held at Azim Premji University in collaboration with Institute for New Economic Thinking in Bangalore, India, during June 2-15, 2019.

### V.C. Sabeer

- Presented a paper 'Return, Rehabilitation and Reintegration of Labour Emigrants in Kerala,' at the Seminar on Kerala and the World Economy, organised by CDS, February 3-4, 2020. (with S. Irudaya Rajan and C. S. Akhil).

### Shraddha Jain

- Presented a paper along with Pravena Kodoth titled 'Locality Specific Norms for Wages, Bargaining and Mobilizations by Part-time Domestic Workers and Employers in the National Capital Region, India,' at the "6th Conference of the Regulating for Decent Work Network" at the International Labour Office Geneva, Switzerland in July 8-10, 2019.
- Presented a paper titled 'Bargaining Over Care within Households: Case Studies of Women in Low Earning Occupations in the National Capital Region, India,' at Young Scholar Initiative- Asia Convening in August 12-15, 2019.
- Presented a paper 'Gender norms, entry into paid work and child care: Negotiations by women in low paid occupations in the National Capital Region, India,' at the Indian Association for Women Studies Conference held in New Delhi, in January 28-31, 2020.

### Shelja Bhatia

- Presented a paper 'Bank Capital Structure and Monetary Policy Transmission: Evidence from India,' at the 15<sup>th</sup> Annual Conference on Economic Growth and Development, held at Indian Statistical Institute, New Delhi during December 19-20, 2019.
- Presented a paper 'Bank Capital Structure and Monetary Policy Transmission: Evidence from India,'

at the 56<sup>th</sup> Annual Conference of the Indian Econometric Society (TIES), held during January 8-10, 2020, organised by School of Economics, Madurai Kamaraj University, Madurai.

- Presented a paper 'Bank Capital Structure and Monetary Policy Transmission: Evidence from India,' at the 5<sup>th</sup> SANEM Annual Economist's Conference (SAEC), at Dhaka, Bangladesh, during February 2-3, 2020.

### Suravee Nayak

- Presented a paper 'Changing Lives of Rural Women in Coal Bearing Tracts: Narratives from Talcher, Odisha' at Vina Mazumdar Memorial Fund Research Scholars' Workshop on Researching Rural India: Contemporary Challenges to Contextualising Women's Lives, jointly organised and sponsored by Vina Mazumdar Memorial Fund (VMMF) and Centre for Women's Development Studies (CWDS), New Delhi, during September 18-19, 2019.
- Presented a paper 'Political Economy of Subcontracting in the Coal Industry: Evidence from the Talcher Coalfields of Odisha, India,' at the International Workshop on Formalisation, Informalisation and the Labour Process: Comparative Perspectives, organised and sponsored by Centre for Modern Indian Studies (CeMIS), University of Göttingen, Germany, from November 20-22, 2019.
- Presented a paper 'The Question of Women's Work in Coal Mining Towns: A Case Study from Talcher Coalfields of Odisha' at XVI National Conference on Women's Studies, organised and sponsored by Indian Association for Women's Studies (IAWS), New Delhi, from January 28-31, 2020.
- Presented a paper 'Women's Miners or Miner's Wife or Coal Collectors- The Lives of Rural Dispossessed Women in Talcher Coalfields of Odisha,' at the Yale Modern South Asia Workshop, organised and sponsored by South Asian Studies Council and the



Macmillan Centre, Yale University, New Haven, USA, from February 22-23, 2020.

### **Irfan Shah Ahmed**

- Presented a paper titled 'Asymmetries in the Monetary Policy Reaction function: Evidence from India,' at a seminar held at IGIDR, Mumbai from December 16-17, 2019.
- Presented a paper titled 'Asymmetries in the Monetary Policy Reaction function: Evidence from India,' at a seminar held at ISI Delhi during December 18-21, 2019.
- Presented a paper titled 'Asymmetries in the Monetary Policy Reaction function: Evidence from India,' at a seminar held at IIM Bangalore during December 27-28, 2019.
- A paper titled 'Monetary Transmission in Good and Bad Times: Evidence from India,' was presented at a conference titled Institutions for Development, organised by SANEM BANGLADESH at Bangladesh during February 2-3, 2020.
- Attended the visiting PhD fellowship programme from 1st January to 31st March 2020 at IGIDR Mumbai, where I worked with Dr Tanya Ghost on my PhD thesis.

## **(D) SERVICES TO ACADEMIC COMMUNITY**

### **(a) Representation in Committees/Task Forces/Advisory Bodies**

#### **Member of Committees**

#### **J. Devika**

- Member, Board of Studies, Social Science, Malayalam University, Kerala.
- Member, Translations Project Committee, Malayalam University, Kerala.
- Member, Reference Group, SASNET (Swedish Network for South Asia Studies).

- Member, Editorial Board, Indian Journal of Gender Studies
- Member, Editorial Board, Review of Development and Change.

#### **Beena P.L**

- Member, Board of Studies, Department of Economics, Sacred Heart College, Thevara, Cochin.
- Member, Board of Studies, Department of Economic, Mar Ivanios College, Trivandrum.
- Member, Board of Studies, Lady Doak College, Madurai, Tamil Nadu.

#### **S. Irudaya Rajan**

- Member, Population Projection Team, Ministry of Health and Family Welfare, Government of India.
- Member, Population Projection Team, Ministry of Finance and International Institute for Population Sciences.
- Dean, Faculty of Social Sciences, Kannur University
- Co-chairperson of the Working Group on Non-Resident Keralite Affairs, Government of Kerala 2016-2021.

#### **Jayaseelan Raj**

- Member, MA Evaluation Committee, St. John's College, Anchal.

#### **K.J. Joseph**

- President, Globelics Governing Board.
- Global expert on Innovation Studies: Tianjin University of Finance and Economics.
- Visiting Professor, Panjabi University Patiala.
- Member Board of Studies, Tripura University.
- Member, Board Studies: SB College Changanacherry.
- Member, Board of Studies: Kerala Agricultural University.



### **Sunil Mani**

- Member, International Advisory Committee, Centre of South Africa.
- Member, Governing Board, International Centre for Free and Open Source Software.
- Member, Academic Council, Jawaharlal Nehru University.
- Member, Court, Jawaharlal Nehru University.

### **Udaya Shankar Mishra**

- Member Academic Council International Institute for Population Sciences ( Deemed University) Mumbai.
- Member Technical Expert Group towards assessing development in North Eastern Region, Department of North Eastern Region, Government of India.
- Member of the Panel for National Testing Agency Ministry of HRD, Govt. of India.
- Member Expert Committee of a Study on ' Challenges for the New-born care in Bihar' sponsored by UNICEF.
- Chairperson of the Technical Advisory Committee on the project 'Multidimensional Poverty in Urban Maharashtra' sponsored by UNICEF.
- Advisory committee member of the conclave on 'Public Health Nutrition – enriching the Cycle of Research, Policy and Practice' in NIT Roorkela Odisha.

### **N. Vijayamohanan Pillai**

- MG University nominee to the Board of Studies of St. Teresa's College (Autonomous), Ernakulam.
- Subject expert of the Board of Studies of Department of Applied Economics of Cochin University of Science and Technology, Kochi.
- Subject expert of the Board of Studies of Mar Athanasius College (Autonomous), Kothamangalam.
- Calicut University Nominee of the Board of Studies in Economics, History and Political Studies of St Joseph's College (autonomous), Devagiri, Calicut.

- Member of the Advisory Board of TKM Institute of Management, Kollam.
- Member of the Academic Committee of Inter University Centre for Financial Economics and Financial Engineering adjunct to the Department of Economics, Dr. John Matthai Centre, Thrissur.
- Member of the State level Expert Group to vet the survey forms and the sample survey in connection with the project on Total Energy Security Mission under the State Planning Board.
- Member, Quantitative Research Methods Group, Human Development and Capability Association (HDCA).
- Member, World Economics Association (WEA).

### **Vinoj Abraham**

- Member, National Committee on Evaluation of MTF Scheme of Rubber Board, 2019 September.
- External Member, Research Advisory Committee for Ph.D scholar at Kannur University, Kannur, 2019.
- Member, Subject Expert for Economics for Ph.D Preliminary Qualifying Examination at University of Calicut, 2019.
- Member, Board of Studies, School of Development Studies, Rajiv Gandhi National Institute for Youth Development-Deemed University, Sreeperumbudur, Tamil Nadu, 2019.
- Member, Research Advisory Committee for Ph.D scholar at Kannur University, Kannur, 2019.

### **Teaching, Co-ordinating, Training Programmes at CDS / External Teaching**

#### **Abhilash T**

- Convener, National Seminar on Indian Economy and Society, held at the CDS during February 7-8, 2020.





### Beena P.L

- Delivered a lecture on 'Industrial Performance and Development Implications of Kerala', at the Norwegian training programme held at the CDS during 2-9 September, 2019.
- Interactive session with students and officials from the Institute of Parliamentary Affairs, Govt. of Kerala at CDS on 28 December, 2019.

### Chidambaran G. Iyer

- Chair for the panel discussion on 'World Development Report 2020: Trading for Development in the Age of Global Value Chains' held on January 17, 2020.
- Chair for the technical session 'Hi-tech Manufacturing and Modern Industries' in the Seminar on Kerala and the World Economy held on February 3-4, 2020.
- Chair for the technical session 'Industry, Innovation, and Technology' in the Seminar on Indian Economy and Society held on February 7-8, 2020.
- Instructed 5 sessions in Microeconomics and 5 sessions in Econometrics in the Teaching Innovations Programme in Economics (TIPE) held from February 10-21, 2020.

### J. Devika

- Handled several sessions at colleges and university departments, including the Government College, Nedumangad; Academic Staff College, University of Kerala, Academic Staff College, University of Kannur, Department of Economics, University of Kerala; Department of Sociology, University of Kerala; Loyola College, Thiruvananthapuram.

### Hrushikesh Mallick

- Served as a Chairperson for a session on 'Foreign Trade' in the conference on Indian Economy and Society, held at CDS on February 7-8, 2020.
- Also served as part of the organizing committee of the conference on Indian Economy and Society, held at CDS on February 7-8, 2020.

### S. Irudaya Rajan

- Spoke to the Norwegian students of module EDS387: State and Civil Society in Development and Environmental Governance in India on 'Dimension of Migration from Kerala' at CDS on September 3, 2019.
- Spoke to the participants of 'Teaching Innovations Programme in Economics' (TIPE) held from February 10-21, 2020.

### Jayaseelan Raj

- Coordinator, ICSSR Capacity Building Programme, 2019.
- Trainer, Norwegian Student Visit, 2019.
- Chaired Session on Plantation Crops during February 4-7, 2020.

### M. Parameswaran

- Delivered a lecture to Ph.D research students at St. Joseph's College Devagiri, Calicut.

### Praveena Kodoth

- Presented a paper 'How did Women Make a Mark in Nursing? A Political Economy Explanation' presented at the 'Kerala in the World Economy Conference,' at the CDS on February 7-8, 2020.

### Ritika Jain

- Presented a seminar on 'Is R&D Spending Influenced by Disinvestment and Local Political Corruption? The Case of Indian Central Public Sector Enterprises,' on June 25, 2019.
- Took lectures for ICSSR Sponsored Capacity Building Programme Pathways of Social Research: A Methodological Training for Doctoral students during October 21-25, 2019.
- Part of the MA dissertation evaluation committee, members of various RAC Committees.



- Took half a course (12 lectures for three sections) of 'Market Economics and Organizational Behaviour in 2019-20' at IIM Kozhikode.

### **Srikanta Kundu**

- Delivered Three lectures on 'Econometrics Theory and Application,' in Teaching Innovations Programme in Economics (TIPE) held from February 10-21, 2020 in CDS.
- Presented one research article titled 'Effect of Economic Policy Uncertainty On Stock Market in Different Market Conditions: A Regime Switching Analysis for G-7 Countries' on September 27, 2019.

### **Sudip Chaudhuri**

- Delivered a lecture on 'Research on Indian Industry,' at the Training Programme on Pathways of Social Research: A Methodological Training, at CDS on October 24, 2019.
- Gave Lectures on 'Macroeconomics (Part 1)' at the Teaching Innovations Programme in Economics, (TIPE) during February 10-12, 2020.

### **Sunil Mani**

- Coordinator, Summer School on Development Economics, International Growth Centre of LSE, University of Oxford and IIM, Shillong.
- Organised a workshop on 'Institutional Support for Management of Agrobiodiversity,' August 21, 2019.
- Helped in the organisation of two major seminars: (i) Kerala and the World Economy; and (ii) India's Economy and Society: Lateral Explorations.
- Organized several public lectures at the Centre.
- Organized a Panel Discussion on the 'Economic Survey 2019-20 and the Union Budget 2020-21.'
- Organised the collected papers of 6 Founding Fathers of CDS.

- Helped secure additional funding for establishing a new Research Programme on International Migration from Kerala.

### **Thiagu Ranganathan**

- Presented an Open seminar at the CDS on 'Relative Educational Status and Women's Autonomy: Evidence from India,' on February 5, 2020.
- Participant in the Panel Discussion on Economic Survey 2020 and discussed on "The Invisible Hand" - A Proposition or a Superstition'
- Gave Lectures on 'Game Theory and Decisions' under Risk at the the Teaching Innovations Programme in Economics, (TIPE) during February 10-12, 2020.

### **Tirtha Chatterjee**

- Gave 2 Lectures at the Teaching Innovations Programme in Economics, (TIPE) during February 10-12, 2020.

### **Vijayamohanan Pillai, N**

- Attended as the University-nominated External Evaluator for the valuation/Viva Voce of M Phil Dissertation 2019 (of the candidate Reshma Rajeevan) at the Department of Economics, University of Kerala, Kariavattom Campus, Trivandrum on 29 November 29, 2019.
- Attended the PhD viva voce of Baby saline P. V., Department of Applied Economics, Cochin University of Science and Technology, Kochi, on the Thesis on "Prospects and Challenges of Eco-Tourism with Special Reference to Wildlife Sanctuaries in Kerala", submitted to the Mahatma Gandhi University as the External Examiner and the Chairman at MG University, Kottayam, on November 1, 2019.
- Attended the PhD viva voce of Nimisha C. Nair, Department of Economics, Mar Athanasius College (Autonomous), Kothamangalam on the Thesis on "Exchange Rate Volatility and the Role of RBI", submitted to the Mahatma Gandhi University as the



- External Examiner and the Chairman at MG University, Kottayam, on October 25, 2019.
- Attended the first Department Advisory Board of School of Management Studies, National Institute of Technology, Calicut, Kerala, on September 18, 2019.
- Evaluated a PhD Thesis on 'An Empirical Investigation of Financial Development on Sustainable Economic Development and Environmental Quality in BRICS Countries,' submitted to the Central University of Tamil Nadu by Raghutla Chandrashekar, Department of Economics, CUTN, Kochi, during May-July 2019 and attended the Viva Voce of the candidate as the External Examiner at the Department of Economics, CUTN, Thiruvapur on August 16, 2019.
- Evaluated a PhD Thesis on 'Prospects and Challenges of Ecotourism: With Special Reference to Wildlife Sanctuaries in Kerala,' submitted to the MG University by Baby Salini PV., Department of Applied Economics, Cochin University of Science and Technology, Kochi, during July-August 2019.
- Delivered five lecture-cum-computer sessions on 'Statistics and Econometrics Research Methodology Course' for the PhD students of Gulati Institute of Finance and Taxation, Thiruvananthapuram, during June 24-28, 2019.
- Attended as an Expert in the screening committee of Inter University Centre for Alternative Economics for the selection of Research Associate at Department of Economics, Kariavattom on June 18, 2019.
- Reviewed a manuscript on 'Growth Maximizing Fiscal Rule Targets in India,' for MIDS working paper series during May 2019.
- Attended as an Expert in the screening committee of Inter University Centre for Alternative Economics for the selection of Researchers under Short Term Project 2019 on May 23, 2019, at Department of Economics, University of Kerala, Kariavattom.
- Attended as an Expert in the screening committee of Inter University Centre for Alternative Economics for the selection of Associate Researchers 2019 on 6th May 2019, at Department of Economics, University of Kerala, Kariavattom.
- Delivered twenty lecture-cum-computer sessions on econometrics at the One-Week Workshop on Econometrics, organised by the Department of Economics and Public Policy, Central University of Himachal Pradesh, Dharamshala, Kangra, from May 13-17, 2019.
- Taught eight lecture sessions on Basic econometrics at the Two-day Workshop on Econometrics, jointly organised by the Indian Accounting Association, Kerala Branch and Department of Commerce, University of Kerala, at the Department of Commerce, School of Business Management and Legal Studies, University of Kerala, Kariavattom on May 21<sup>st</sup> and 22<sup>nd</sup>, 2019.
- Attended as an Expert in the screening committee of Inter University Centre for Alternative Economics for the selection of Researchers under Short Term Project 2019 on 23rd May 2019, at Department of Economics, University of Kerala, Kariavattom.
- Reviewed a manuscript on "Growth Maximizing Fiscal Rule Targets in India" for MIDS Working Paper Series during May 2019.
- Attended as an Expert in the screening committee of Inter University Centre for Alternative Economics for the selection of Researchers under Short Term Project, 2019, at Department of Economics, University of Kerala, Kariavattom on May 30, 2019.
- Attended as an Expert in the screening committee of Inter University Centre for Alternative Economics for the selection of Researchers under the Associate Research Programme 2019, at Department of Economics, University of Kerala, Kariavattom on May 30, 2019.



- Evaluated a PhD Thesis on “Education and Inclusive Development: A Comparative Study of Rural and Urban Bangalore Districts”, submitted to the University of Mysore by Deepa V., Department of Studies in Economics and Co-operation, University of Mysore, Mysuru, during April 2019.

### Vinoj Abraham

- Coordinator, Teaching Innovations Programme in Economics, (TIPE-2019) for college teachers at CDS from March 18<sup>th</sup> to April 12<sup>th</sup>, 2019 sponsored by KN Raj Research and Fellowship Programme and Government of Kerala.
- Coordinator, Workshop on ‘State and Civil Society in Development and Environmental Governance in India, Kerala,’ conducted for Post Graduate students from Department of International Development, Norwegian University of Life Sciences, during 24 August to 4<sup>th</sup> September 2019 at CDS.

### (b) Other Professional Services Rendered

#### Chidambaran G. Iyer

- Refereed a paper for *Economic and Political Weekly*.
- Refereed a paper and its revised version for consideration of publication as a working paper for the Centre.

#### P.L. Beena

- Evaluated Ph.D Thesis of MG University, Kerala.
- Evaluated and Conducted Viva of Ph.D Thesis of MG University, Kerala.
- Evaluated M.Phil Dissertation of JNU.
- Reviewed articles for the Journal (EPW).

#### S. Irudaya Rajan

- Editor, Journal of Migration and Development, Taylor and Francis, since 2012.
- Series Editor, India Migration Report, Routledge since 2010.

- Series Editor, South Asia Migration Report, Routledge, since 2017.

### Hrushikesh Mallick

- Associate Editor (2014) “World Review of Business Research (WRBR)”, Zant World Press, 37 High Street, Berwick, Melbourne, Victoria 3806, Australia ,[http://www.wrbrpapers.com/editorial\\_board](http://www.wrbrpapers.com/editorial_board) /<https://zantworldpress.com/journals/wrbr/aim-and-scope/>
- Member of Editorial Board “Athens Journal of Business & Economics”, Academic journals Athens Institute for Education & Research, Italy.<https://www.athensjournals.gr/ajberb>
- Editorial Review Board Member “Amity Journal of Economics (AJECO)”, Amity Directorate of Management & Allied Areas (ADMAA), Amity University, Sector-125, Noida, U.P. (India) – 201301, Website: [www.amity.edu](http://www.amity.edu)
- Member of editorial board (Since 2015) *Migration and Development*, CDS, Routledge Publication.

### M. Parameswaran

- Did refereeing of research papers and books for the following journal and publishers.
  1. Economic and Political Weekly
  2. Innovation and Development
  3. Journal of Quantitative Economics
  4. India Growth and Development Review

### Praveena Kodoth

- External examiner at the viva voce of a Ph D candidate at the Centre for Regional Studies, University of Hyderabad on June 7, 2019.

### Sunil Mani

- External Examiner to a doctoral dissertation of GAUHATI University, Assam.
- 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: Research Policy, Journal of Evolutionary Economics, Technovation, Structural Change and Economic Dynamics, Science and Public Policy, Economic and Political Weekly, Springer Sage Publications.

### Vijayamohanan Pillai, N

- Member, Scientific Committee of the Journal *Innovation and Development*.
- Editorial Board Member of *American Journal of Theoretical and Applied Statistics*.
- Editorial Board Member of *International Journal of Energy and Power Engineering*.
- Editorial Board Member of *American Journal of Electrical Power and Energy Systems*.
- Member, Review Board, Science Publishing Group.
- Member, Review Board, Economic and Political Weekly.
- Expert, Sustainable Consumption Research Exchange (SCORE).
- Member, Project Monitoring and Evaluation Committee, Energy Management Centre, Government of Kerala.
- Member, Project Monitoring and Evaluation Committee, Inter University Centre for Alternative Economics, Department of Economics, University of Kerala, Kariavattom.
- Evaluated a PhD Thesis on 'Exchange Rate Volatility and the Role of RBI', submitted to the MG University during April-May 2019.

- Evaluated a PhD Thesis on 'Education and Inclusive Development: A Comparative Study of Rural and Urban Bangalore Districts,' submitted to the University of Mysore during April 2019.

Reviewed articles for the following journals:

1. *Economic and Political Weekly*
2. *Journal of Quantitative Economics*
3. *American Journal of Theoretical and Applied Statistics*.
4. *Innovation and Development Journal*

### Vinoj Abraham

Associate editor- Indian Economic Journal: 2019-20

Peer review for journals: -

World Development,

Economic and Political Weekly,

Indian Journal of Labour Economics

### (c) 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. The scheme introduces the idea of mentoring and builds on the concept of a mentor as a 'Guide' and 'Friend'.

The mentoring scheme will be open for all students entering the first year of the Under Graduate Programme of Study. 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. The following groups of students visited the CDS under the WWS programme.





A group of 30 students each from St Gregorios College, Kottarakara., St. Joseph's College, Moolamattom., Maharaja's College, Ernakulam., Al Ameen College, Edathala., St. Paul's College, Kalamassery., Sacred Heart College, Chalakudy., Muhammed Abdurahiman Memorial Orphanage College, Kozhikode and Govt. Arts and Science College, Ollur, visited the library on 28<sup>th</sup>, 31<sup>st</sup> January, 5<sup>th</sup>, 24<sup>th</sup>, 26<sup>th</sup>, 28th February respectively as part of the 'Walk with the Scholar' scheme of Government of Kerala.

## AWARDS AND ACCOLADES

### Academic Recognition

**Professor M.A. Oommen**, Honorary Fellow, CDS was appointed as Honorary Professor, Gulati Institute of Finance

and Taxation, Trivandrum, as per the decision of the Governing Body taken in its meeting held on 09/12/2019.

**Rajesh ID**, (PhD 2017 Batch), won the Dr John Matthai Memorial Best Paper Award for the paper titled "Dalit Enterprises in India: A Preliminary Outlook" presented in the Dr John Matthai Memorial National Conference 2020 on *Development and Resilience among Dalits in India: Understanding Diversity between and within States*, jointly organised by the Department of Economics, University of Calicut, Dr John Matthai Centre, Thrissur, State Planning Board, Government of Kerala, Thiruvananthapuram and Kerala Institute of Local Administration (KILA), Thrissur during 9-11 January 2020.

## TEACHING AND TRAINING PROGRAMMES

### (a) DOCTORAL PROGRAMME IN ECONOMICS

The Doctoral Programme at Centre allows scholars to register under either JNU or the University of Kerala. Of the 210 scholars who were admitted during 1975-2019, **97** scholars have been awarded PhD Degree: 88 from JNU and 9 from KU. **2** theses are under evaluation at JNU; 1 is waiting for PhD Award Notification after the viva voce examination **40** scholars are now in campus. **35** scholars are De-Registered from the programme for employment, etc., **2** scholars are Re-Registered for submission of their thesis and **34** scholars discontinued from the programme to join elsewhere.

#### Overview of the Year

**2019 admission:** 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. 11 candidates were admitted in 2017 for the Integrated MPhil/PhD programme. All eleven students are likely to submit their MPhil thesis by June 2019. They will be automatically eligible for admission to PhD programme (Provisional) in 2019, as per JNU regulations.

The registration is granted per semester, after due review of progress. In addition, the scholars are to seek confirmation of registration in three semesters after a rigorous process involving both internal and external reviews of their study proposals and an adjunct paper. After obtaining confirmation and completing the core aspects of the study, scholars can also choose to take up employment with provision for re-registration later, for submission of thesis. Financial support is through doctoral fellowships of the ICSSR, UGC, RGNF, Government of Kerala for SC/ST students and CDS Endowments. Scholars are also provided financial assistance for participation in national conferences and seminars. Centre's scholars do get early exposure



to international research initiatives and academia through major events abroad.

**As on 31 March, 2019, three theses were under evaluation at JNU:**

- *Gender, Education and Employment: Decision making Processes and Labour Markets outcomes of Higher Educated Women in Kerala*  
**Alice Sebastian**, 2005  
Supervisor: Praveena Kodoth
- *Growth of Multinational Corporations in India: An Analysis of Government Policies and Performance*  
**Anurag Anand**, 2014- ICSSR  
Supervisor: Sunil Mani
- *Farm Household in India; Acquisition and Use of Information*  
**Aritri Chakravarty**, 2008-, ICSSR  
Supervisors: Srikanta Kundu & Manmohan Lal Agarwal

**Three** scholars have been **awarded PhD degree** by JNU during this period:

- *Corporate Social Responsibility: Determinants and Impacts, A Study of Manufacturing Firms in India*  
**Kavitha P.**, 2013  
Supervisors: Sunil Mani & M. Parameswaran

The thesis examines the determinants and impact of CSR of manufacturing firms in India. In the analysis of determinants of CSR, we consider both external and firm-specific factors. For analysing the impact of CSR spending on firm performance, we considered both account-based and market-based indicators such as return on asset, sales growth, labour productivity and Tobin's q. We defined CSR as company's voluntary engagement in social activities outside the firm which may benefit directly and indirectly the stakeholders of the firm. Institutional theory, stakeholder theory and resource-based theory has been used to understand the determinants of CSR and their impact on firm performance. For the analysis, this study used both

qualitative and quantitative methods. The period of study is from 2001-2002 to 2013-14.

While exploring the evolution of CSR, it is evident that the concept of CSR in India can be traced back from pure philanthropy and charity during the industrialisation period, followed by social development during the independence period. Moreover, the paradigm of 'mixed economy' with an increased role of public sector undertakings for the proper distribution of wealth also influenced the CSR activities of Indian firms. Finally, a globalised world characterised partly by the traditional philanthropic engagements and partly by trying to integrate CSR into a sustainable business strategy. The state of confusion continued, until the Ministry of Corporate Affairs (MCA), Government of India took a conscious effort to shape and structure the CSR dynamics, through CSR mandate for a specific set of companies under the section 135 of the Company's Act 2013.

While analysing the trends and pattern of CSR expenditure, the result showed that, in the voluntary period, a large number of firms are spending on CSR through donation rather than social and community expenses. But in the mandatory period, there is a drastic decline in the amount of money spent on CSR through donation and a corresponding increase in social and community expenditure. In both voluntary and mandatory period, firms operating in pollution generating industries are spending more in CSR activities. While analysing a subset of 100 large firms in 2013-14, we find that firms which were initially spending less than 2 percent on CSR, have increased their CSR expenditure; alternatively firms that were spending more than 2 percent earlier, have reduced their CSR expenditure after the enactment of Companies Act. In the voluntary period, firms are largely using own charitable trust and foundations for implementing CSR activities, but in the mandatory period, a large number of firms are found to be engaging directly in CSR activities than using trust or foundations.

In the analysis of external factors determining CSR spending, the study uses two case study approaches – Kitex Garments Ltd. and HLL Lifecare Ltd. The result shows that the main



external factors are pressure from the government through various policies and regulations, pressure from civil society and neighbours who are suffering from the negative externalities created by the firm. The findings suggest that for HLL Lifecare Ltd., a central public sector enterprise, governmental policies and laws are the main external factor pressuring firm to engage in socially responsible activities. However, for a private sector company like KiteX Garments Ltd., civil society groups, action council, and local government are the main external factors influencing firm to engage in CSR activities. Among this, civil society plays a crucial role, and the company realises that without the support of the civil society they cannot survive in the long run.

For analysing the firm-specific factors determining CSR spending, the study uses secondary data from CMIE Prowess IQ. Analysing the probability of a firm to engage in CSR, the study uses probit model and for analysing the variation in CSR spending, the study uses tobit model. The result shows that main firm-specific factors that are influencing firm's probability to participate in CSR activities are their pollution status, Indian private firms, large sized firm, exporting intensity, profitability and marketing intensity. Moreover, industry-wise probit analysis shows that the influences of the firm-specific factors are varying across industries depending on their nature and characteristics. Furthermore, factors determining the CSR intensity of manufacturing firms are different in different industries. In the food industry, factors such as pollution, Indian large sized, profitable and advertising played an important role in determining the CSR intensity. While in Beverage and Tobacco industries, firms CSR intensity is mainly depending on the profitability of the firm. In the petroleum industry, large sized firms are spending more in CSR activities. While analysing the Rubber industry, it is observed that the firm size, profit intensity and staff welfare intensity are determining CSR intensity of the firm. Moreover, in electrical and electronic equipment industry, firms size and profit intensity are influencing firms CSR intensity.

For analysing the impact of CSR on firm performance, the study uses secondary data from CMIE Prowess IQ. We have

used different performance indicators, namely, return on asset (ROA), sales growth, labour productivity and Tobin's q. We used system GMM method for estimating the impact of CSR on these performance indicators. The result from the study found a significant positive impact of CSR on the profitability of the firm measured in terms of ROA. There is no direct impact of CSR on sales growth but the interaction between advertising intensity and CSR shows a significant positive impact on sales growth. Furthermore, the study also found a significant and positive impact of CSR on firm value measured by Tobin's q. By participating in CSR, firms can improve long-term performance via increasing their firm value. Contrary to the existing studies, this study found a significant negative impact of CSR on labour productivity.

- *Revisiting Formal-Informal-Agriculture Interlinkages in India: A Computable General Equilibrium Analysis.*  
**Anirban Kundu**, 2009.-, ICSSR  
Supervisor: M. Parameswaran

Despite the paradigm shift of the Indian economy from agriculture-base to high value-added service sector-led growth trajectory, a large segment of workforce remains locked in the low value-added sector. Since a large mass of workforce in India is employed in low value-added informal segment of the economy, enhancing the income of the people engaged in this sector and bringing this sector out of poverty trap becomes crucial from a policy perspective. It is argued that one way of reaching this goal is to attach this sector to the dynamic formal sector through linkages. However, economic reforms, such as, trade liberalisation and deregulation of the formal labour market, have transformed the inter-relationship between formal and informal sectors of the economy. In this context, the study seeks to understand to what extent the degree of association between formal and informal sectors could vary with the introduction of the following three key policy parameters: (1) unilateral tariff cut in formal and informal (agriculture) traded goods sector; (2) nominal wage cut in formal labour market, an indication of labour market deregulation and (3) increase in government consumption spending on goods and services.



Sectoral mobility of primary factors of production plays a key role in determining the impact of formal sector expansion on its informal counterpart, as both the sectors are interlinked through various channels. We consider this aspect under assumed alternative labour market scenarios where segmentation in labour market is considered as one important binding constraint for expansion of the sectors. For our analysis, we use CGE methodology for the static one-country case. We further construct the social accounting matrix for India for the year 2003-04 with appropriate division of productive activities between their formal and informal segments. Our study reveals that labour mobility based on the extent of labour market segmentation, gives rise to differential outcome in terms of linkages between formal-informal sectors under various exogenous policy-shocks. Under unilateral tariff cut, we find that absence of labour market segmentation with full mobility of labour gives rise to relatively higher growth in expanding formal sector activities vis-à-vis the growth of those similar activities under segmented labour market with full mobility of labour. On the contrary, among growing informal sector activities, we find just opposite outcomes. The growth of the aforementioned informal activities is further worsened due to restricting labour mobility from (formal) capital goods industry under the segmented labour market framework; however, restricted labour mobility has highest impact on expansion of formal activities. Our analysis on nominal wage cut in formal regular labour market shows that even though formal sector activities expand due to reduction in labour cost under segmented labour market scenario, informal activities does not grow primarily due to rising informal wage cost. Full mobility of labour allows reallocation of labour from informal to formal activities leading to increased informal wages. Hence, we find a growth conflict between formal-informal sectors due to deregulation of labour market. We further notice that autonomous increase in nominal government consumption expenditure on formal goods and services including agriculture and allied activities, does not unequivocally gives

demand-side boost across all the formal activities under the condition of segmented labour market with full labour mobility. However, informal activities grow and growth of those informal activities further gets consolidated in absence of segmentation. On the contrary, expanding formal activities under segmented labour market gain relatively higher growth momentum. Skill-specificity in (formal) capital goods sector restricts the labour movement and hampers informal sectors' growth in this scenario; however, we observe further improvement in terms of formal sectors' growth.

In developing economy like India where a large segment of informal sector consists of agricultural activities, the competitive relation between formal-informal sectors can also be explained in terms of generic food supply-constraint as depicted in structuralist framework literature. We bring out this issue as well in our empirical exercise. We estimate formal-informal growth linkages using two-stage least squares-Instrumental variable (2-SLS-IV) estimation method due to the presence of simultaneity between agricultural and non-agricultural formal/informal activities. Our analysis reveals that irrespective of all segments of the informal sector and across rural and urban settlements, the inverse relationship between the growth of formal sector and informal sector exists at the backdrop of agricultural supply bottleneck. This result consolidates our argument that increasing demand for agricultural output from formal sector could hinder the growth of informal sector at least in the short run, where agricultural supply constraint is prevalent. We show that in India, the reliance of non-agricultural sector on agriculture is structurally determined. A large segment of both agro and non-agro based industry along with various services are interlinked with agriculture. Hence, it is impossible to surpass the influence of agricultural supply shocks, if any, on the growth of non-agricultural segment of the economy. In conclusion we argue that accumulation in formal sector does not necessarily benefits all the segments of the informal sector in general and informal manufacturing in particular, due to inherent structural rigidities within the economy.





- *Higher Education and Inclusive Development: The Indian Experience*

**Jannet Farida Jacob, 2012 – ICSSR**

Supervisors: K. J. Joseph & U. S. Mishra

The thesis, broadly, examines participation in higher education in the context of institutional changes in higher education sector meted out through policy initiatives, largely intended to meet the growing demand for tertiary education, necessitated by the increasing demand for educated labour. The policy shift towards more public-private partnership in higher education is viewed as an institutional reform to meet the goal of equity, expansion and efficiency in higher education sector. Using human capital and institutional framework of analysis, the study focuses on the higher education participation decisions of individuals, particularly of the socially disadvantaged groups, in the context of the new policy stance towards public-private partnership in investment in higher education sector. Towards this objective, the study first examines the trends in the growth of higher educated in the past three decades from 1983 to 2014. In order to get a wider understanding of the decisive factor that contribute to the participation decisions regarding higher education, econometric analysis on the determinants of participation, choice of institutions, and choice of majors/ disciplines is done. Lastly, the study also examines the outcome of participation in higher education in terms of labour market returns to higher education.

The trends in the growth of higher education in India since 1983 reveals that the increase in the share of higher educated in the total population and in the average annual growth rate of higher educated is, largely, due to increasing enrollment of socially advantaged groups. Besides, though there is increasing participation in private unaided institutions and declining participation in government institutions, a majority of the socially disadvantaged groups, particularly from lower economic classes, still participate in government higher education institutions. The logit model for participation decisions reveals the demographic (including socio-religious affiliation), familial and labour market determinants of

participation in higher education, thus confirming to human capital theory. The multinomial logit models for choice of institutions and choice of majors, again shows the deterministic role of the individual's family income, socio-religious status and gender in opting for a particular type of higher education institution and selecting a major, as revealed by the lower preference for private institutions relative to government institutions and lower preference for professional majors by lower income quintiles, socially disadvantaged groups and women. Besides, the model also shows the institutional determinants in selecting a major for higher education, especially with professional majors, like engineering and management, for which private unaided institutions are highly preferred. Finally, the higher labour market outcomes, in terms of wage returns, for professional majors, especially medical and engineering professions can be said to have contributed to the positive effect of labour market outcomes on the participation decisions of individuals. But as these professional majors are mostly concentrated in private institutions and since private institutions are more preferred by socially and economically advantaged groups for professional majors, it can be said that these private institutions are beneficial to the higher income quintiles and socially advantaged groups.

Therefore, as postulated by human capital theory, investment in higher education depends on the wage returns in the labour market but at the same time is contingent on the demographic and familial characteristics of the individual. And as institutional theory postulates family as an institution and socio-religious institutions have a decisive role in the behaviour of individuals with regards to higher education. In order to make higher education sector more inclusive, in terms of equity in access and participation, the government with its de jure political power has to develop inclusive institutions and effect institutional changes that are inclusive. Therefore, the government, while bringing about public-private partnership in investment in higher education, needs to ensure more public investment along with private investment in higher education.



### Current Studies

1. *Higher Education in Kerala: An Analysis of Student's Choices and Forms of Exclusion*  
**Akhila P.**, 2016- ICSSR  
Supervisors: K. J. Joseph & U.S. Mishra
2. *Activity- Participation of Elderly in Kerala: Determinants and Contributions.*  
**Arya U.R.**, 2016- UGC  
Supervisor: S. Irudaya Rajan
3. *Cash versus In-kind Transfers: The Indian Experience*  
**Indrajeet Kumar**, 2016- UGC  
Supervisors: U. S. Mishra & Hrushikesh Mallick
4. *Conducting Monetary Policy in India*  
**Irfan Ahmad Shah**, 2016- Moulana Azad National Fellowship  
Supervisors: M. Parameswaran & Srikanta Kundu
5. *Interstate Labour Migration in India: A Comparative Study of Gujarat and Kerala as Destination States*  
**Madhusudan Nag**, 2016- ICSSR Fellowship  
Supervisor: S. Irudaya Rajan
6. *Grounded Globalisations and Shaping of the Local: A Political Ecology of Kerala's Midlands and Highlands*  
**Mijo P. Luke**, 2016- ICSSR  
Supervisor: J. Devika
7. *Multiple Identities and Urban Spaces: A Study of Residential Segregation in Kerala*  
**Neeha Susan Jacob**, 2016- UGC Fellowship  
Supervisor: U.S. Mishra
8. *Bargaining Over Care within Households: Case Studies of Women in Two Occupational Classes in the National Capital Region*  
**Shraddha Jain**, 2016- Moulana Azad National Fellowship  
Supervisor: Praveena Kodoth
9. *Industrial Agglomeration: A Study of the Indian Manufacturing Sector*  
**Smruti Ranjan Sahoo**, 2016- ICSSR Fellowship  
Supervisors: M. Parameswaran & P. L. Beena
10. *Learning and Upgrading in Global Value Chains: An Analysis of India's Manufacturing Sector*  
**Sourish Dutta**, 2016- ICSSR Fellowship  
Supervisors: K. J. Joseph & M. Parameswaran
11. *Dispossession, Labour Process and Production of Space: A Study of Coal Mines in Talcher, Odisha*  
**Suravee Nayak**, 2016- RGN Fellowship  
Supervisors: Vinoj Abraham & K.N. Harilal
12. *The Process of Urbanisation and the Role of Industrial Location in India*  
**Vineesh T.B.**, 2016- GoK Fellowship  
Supervisor: Vinoj Abraham
13. *Spatiality of Dalit Settlements in Kerala: Selected Case Studies*  
**Vipitha V.**, 2016- ICSSR Fellowship  
Supervisor: J. Devika
14. *Land Alienation and Tribal Labour in Rourkela, Odisha*  
**John Kujur**, 2017- NFH Fellowship  
Supervisor: S. Irudaya Rajan
15. *Implementation of the Minimum Wages Act and its impact in India*  
**Kashif Mansoor**, 2017- ICSSR Fellowship  
Supervisor: Vinoj Abraham
16. *An Assessment of Energy Poverty in India: Dimension and Correlates*  
**Krishan**, 2017- UGC Fellowship  
Supervisors: U. S. Mishra & Hrushikesh Mallick
17. *Social Exclusion and Its impact among the older persons: Experiences from Tamil Nadu*  
**Maheshkumar T.**, 2017- ICSSR Fellowship  
Supervisors: S. Irudaya Rajan & T.Abhilash



18. *Understanding the Nature and Performance of Enterprises Owned by Marginalized Social Groups in India*  
**Rajesh I. D.** 2017- GoK Fellowship  
Supervisor: P. L. Beena
19. *Locating Disability in Indian Households: Nature, Costs and Coping Mechanisms*  
**Sachu R. Sunny**, 2017- UGC Fellowship  
Supervisor: U. S. Mishra
20. *Market Structure and Technological Changes in India's Fertilizer Manufacturing Industry*  
**Ajil M.**, 2018- UGC Fellowship  
Supervisors: Sunil Mani & M. Parameswaran
21. *Direct Corporate Taxation and its Effects on Financial Behavior of Indian Firms after the Macroeconomic Reform of 1991.*  
**Amit Nandan**, 2018- UGC Fellowship  
Supervisor: Hrushikesh Mallick
22. *Social Fragmentation and Development Disparity in India*  
**Cyril Jos Nazhicheril**, 2018- UGC Fellowship  
Supervisor: U. S. Mishra
23. *Low-Carbon Energy Industries in India – A Study of Solar Photovoltaics and Wind Turbine Manufacturing Industries*  
**Ladenla Lama**, 2018- NFST  
Supervisors: Hrushikesh Mallik & K. J. Joseph
24. *Analysing Public Private Partnerships in Indian Infrastructure Sector*  
**Papaiah Koppula**, 2018- ICSSR Fellowship  
Supervisors: Vinoj Abraham & Ritika Jain
25. *Environmental Sustainability in India's Manufacturing Sector: An Analysis of Firm Strategy and Impact*  
**Parijata Pradhan**, 2018- UGC Fellowship  
Supervisors: K. J. Joseph & Hrushikesh Mallik
26. *Broadband Diffusion and The Emergence and Growth of Platform Economy in India*  
**Rajkumar Byahut**, 2018- UGC Fellowship  
Supervisor: Sunil Mani
27. *Uncertainty and Economic Activity: A Study of Indian Industry*  
**Sandeep Pandey**, 2018- ICSSR Fellowship  
Supervisors: M. Parameswaran & Srikanta Kundu
28. *Changing Dynamics of Education, Skills and Employment: Evidence from India*  
**Shilpa Krishnan**, 2018- UGC Fellowship  
Supervisor: U.S. Mishra
29. *Credit Availability and the Performance of MSME Enterprises in India*  
**Vidyarani K.**, 2018- ICSSR Fellowship  
Supervisor: Hrushikesh Mallick
30. *Crop Insurance and Farmer's Behaviour*  
**Binod Kumar Behera.**, 2019 - UGC Fellowship  
Supervisors: Hrushikesh Mallick & Thiagu Ranganathan
31. *Urban Density Skill and Productivity*  
**Himangshu Kumar**, 2019 - UGC Fellowship  
Supervisor: Chidambaram Gurunathan Iyer
32. *Contrasting the Quantum and Quality of Urbanization in India*  
**Kavya Lekshmi R. S.**, 2019 - UGC Fellowship  
Supervisors: U.S. Mishra & Vinoj Abraham
33. *Innovative Entrepreneurship in India with a Focus on Kerala-based start-ups: An Empirical Exploration*  
**Krishnapriya V.S.**, 2019 - UGC Fellowship  
Supervisors: Sunil Mani & M. Parameswaran
34. *Analysing the Labour Process and the Scope for Social Upgrading in Global Production Network*  
**Manikantha Nataraj**, 2019 - UGC Fellowship  
Supervisor: Vinoj Abraham
35. *Internationalisation of SMEs: Evidence from the Indian Corporate Sector*  
**Rahees K. A.**, 2019 - ICSSR Fellowship  
Supervisor: P. L. Beena



36. *Structural Transformation of Indian Economy: Historical and Institutional Perspective*  
**Sabhavat Prem Kumar, 2019** - UGC Fellowship  
Supervisors: Vinoj Abraham & Thiagu Ranganathan
37. *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: Hrushikesh Mallick
38. *Bank Capital and Macroeconomic Fluctuations: The Case for India*  
**Shelja Bhatia, 2019** - UGC Fellowship  
Supervisors: M. Parameswaran & Srikanta Kundu
39. *Sector-wise Public Expenditure and Impact on Poverty*  
**Vaidik Chakraborty, 2019** - UGC Fellowship  
Supervisor: Hrushikesh Mallick
40. *Role of Innovation System on Developing Entrepreneurship - A Comparative Study of Different Social Groups*  
**Vidyanand Thombare, 2019** - UGC Fellowship  
Supervisors: P. L. Beena & K. J. Joseph

#### Re-Registered for Submission

- *Educational Outcome of the Tribal Children in Odisha*  
**Susama Hansdah, (2015)** – ICSSR  
Supervisors: Chinnappan Gasper & U. S. Mishra
- *Innovation in the Informal Sector: Evidence from Urban Manufacturing Enterprises in India.*  
**K. Chandra Shekar, (2015)** – ICSSR  
Supervisor: K. J. Joseph

#### PhD Internship Abroad Programme (PIA)

To bring about more international exposure to research students, the PhD Internship Abroad (PIA) programme was launched in 2016-17. This enables PhD scholars to spend time in research work at an institute of repute in any part of the world.

#### This year 5 students were selected for the programme

*A Study of students Choices in Higher Education*

**Akhila P., (2016)** – S.V Single Girl Child Fellowship (UGC)

Supervisors: K. J. Joseph & U. S. Mishra

Name of institute visited: Warwick International Higher Education Academy (WIHEA), UK (January to March, 2020)

*The Impact of Cash versus In-kind Transfer Programmes on Poverty and Employment*

**Indrajeet Kumar (2016)** – UGC

Supervisors: U. S. Mishra & Hrushikesh Mallick

Name of institute visited: LSE, U.K. (September – December 2019)

*Determination of Wages in a Political Economy Framework*

**Kashif Mansoor, (2017)** – MANF

Supervisor: Vinoj Abraham

Name of institute visited: National University of Ireland, Maynooth, Ireland, (January to March, 2020)

*The Extent of Energy Poverty and its Characteristics in India*

**Krishan, (2017)** – UGC

Supervisors: U. S. Mishra & Hrushikesh Mallick

Name of institute visited: University of Lisbon, (January to March, 2020)

*The Spatiality of a City Slum at Trivandrum: A Case Study*

**Vipitha V. (2016)** – ICSSR

Supervisor: J. Devika

Name of institute visited: University of Sussex, U. K. (January to March, 2020)

#### (b) MPhil PROGRAMME IN APPLIED ECONOMICS

The CDS has been offering its MPhil Programme in Applied Economics from 1975. This 4-semester Programme is affiliated to the Jawaharlal Nehru University, New Delhi and allows students with a Master's degree in any discipline. The focus on applied economics from a plural perspective and adaptation of effective learning tools adds to the uniqueness of the programme which has attracted nation-



wide attention. 470 students from the 42 batches till 2017–19 have been awarded the MPhil Degree. The dissertation details of the 42nd batch (2017 admission), are listed at the end of this section.

Eleven students of the 2018 batch will submit their dissertations by August 27, 2020.

The 45th batch of the Programme (2019–21) commenced on August 01, 2019.

### 2019 MPhil Admission

- 126 candidates attended written examination out of 169 applications
- 18 candidates were short-listed for interview from the 126 applications; 12 appeared for interview.
- 8 were offered admission (Four General, Two OBC NCL, One SC and One ST).
- 6 joined the Programme. 1 each from Kerala, Maharashtra, Jharkhand, Uttar Pradesh, Telangana & Odisha.

## DISSERTATIONS of MPhil Programme 2017-19

*Fiscal Deficit and Economic Growth Performance of Major Selected States in India*

**Binod Kumar Behera**

Supervisor: Hrushikesh Mallick

*Essays in Urban Economics: Amenities, Human Capital and Tiebout Sorting in India*

**Himangshu Kumar**

Supervisors: Sunandan Ghosh & Ritika Jain

*An Economic Analysis of the Performance of Tourism Sector in India's Economic Growth: with Special Reference to Kerala*

**Kavya Lekshmi R. S.**

Supervisors: Hrushikesh Mallick & U. S. Mishra

*Innovation and Employment: An Analysis of the Indian Manufacturing Sector*

**Krishnapriya V.S.**

Supervisors: K. J. Joseph & Ritika Jain

*Understanding the Impact of Integration into Global Production Network in Quality and Quantity of Employment: A Study of Economic Upgrading to Social Upgrading in Post Liberalized Indian Manufacturing Sector*

**Manikantha Nataraj**

Supervisor: Vinoj Abraham

*Internationalism of MSMEs: Evidence from the Indian Manufacturing Sector*

**Rahees K. A.**

Supervisors: P. L. Beena & Sunandan Ghosh

*A Comparative Institutional Analysis of Tribes in Adilabad District of Telangana*

**Sabhavat Prem Kumar**

Supervisors: Vinoj Abraham & Jayaseelan Raj

*International Transmission of Interest Rate and Growth Rate shocks: Evidence from Selected Emerging and Advanced Economies*

**Sanjay Kumar Rout**

Supervisors: Hrushikesh Mallick & Srikanta Kundu

*Bank Capital Structure and Monetary Policy Transmission – Evidence from India*

**Shelja Bhatia**

Supervisors: M. Parameswaran & Srikanta Kundu

*Study of Digital Payments Instruments: Growth Trends and Effects on Macroeconomic Variables.*

**Vaidik Chakraborty**

Supervisor: M. Parameswaran

*Inter Regional Variation in Industrial Development – A Regional Innovation System Perspective*

**Vidyanand Thombare**

Supervisor: K. J. Joseph & M. Parameswaran

## (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).





## 2019 MA Admission

For Students from India

- 800 Applications were received. All the 800 applicants were found eligible for appearing the Entrance Examination.
- Out of the 800 candidates, 122 opted Bardhaman, 12 opted Guwahati, 33 opted Hyderabad,
- 85 opted Kozhikode, 329 opted New Delhi, 48 opted Pune and 171 opted Thiruvananthapuram as their centre for Entrance Test.
- Entrance test was conducted from 10.00 am to 12.00 noon on Sunday, May 19, 2019. The test centres were The University of Burdwan, in Bardhaman, IIT Guwahati, Guwahati, Centre for Economic and Social Studies (CESS) in Hyderabad, Malabar Christian College in Kozhikode, School of International Studies (SIS) in JNU, New Delhi, Gokhale Institute of Politics and Economics in Pune and Govt. SMV HSS, Thiruvananthapuram
- 685 Candidates out of 800 applicants appeared for the entrance test.
- Selection was based only on the score of the entrance test.
- 16 joined the programme.

## For Students from SAARC Countries

Two applications were received for MA Applied Economics Programme. One from Bhutan and one from Nepal. The Committee interviewed one candidate, Mr. Thinley Wangchuk for MA admission from SAARC countries. The interview comprised questions on previous academic background, motivation for study at CDS, understanding of the subject and their ability and willingness to adjust to the environment at CDS. On the basis of the interview, the committee unanimously recommended Ms. Preksha Jain and Mr. Moniraj Ghallay for admission and scholarship. Finally, Mr. Moniraj Ghallay joined the MA Programme.

## 2018 Batch

All the 19 students from 2018 MA batch successfully completed their III Semester. Now they are pursuing the IV Semester.

## Guest Faculty

1. Prof. V. Santhakumar  
AE 209: Environment and Sustainable Development- Semester III  
AE 212: Law, Economics and Development- Semester IV.
2. Dr. Suraj Jacob  
AE216 Economics of Project Evaluation

The Project topics of 18 students are given below:

### MA PROGRAMME- 2018 Batch

#### AE 208- Project

Sl No	Name	Tentative Project Title	Name of Mentor
1.	Ambili N. Kumar	Work-time Allocation and Empowerment of Development Workers	Prof. Praveena Kodoth
2.	Deepanshi Singh	Macroeconomic Effects of Deregulation in Goods And Labour Market in the presence of Wage Inequality	Dr. Rajit Biswas



SI No	Name	Tentative Project Title	Name of Mentor
3	Dona Maria John	Employment Services in India: An analysis of Employment Exchanges and National Career Service	Dr. Vinoj Abraham
4.	Gautam Kumar	A Study on Female Emigration from Kerala, special focus on skilled labour migration	Prof. S. Irudaya Rajan
5.	Harsh Raj	Participation of Disabled People in Indian Labour Market	Prof. Vinoj Abraham
6.	Jatin Sharma	Relationship between Illiquidity and VaR in the Indian Stock Market across different Market Capitalisation Segments and Financial Stress Regimes	Dr. Srikanta Kundu
7.	Jessica Nidhi Tigga	Elderly Suicide: Factors Causing Depression and Happiness (A Case Study of Kerala)	Prof. S. Irudaya Rajan
8.	Kacho Mohammad Idrees	Impact of public debt on growth among Indian states: A study of pre and post FRL Act	Dr. Hrushikesh Mallick
9.	Kanupriya Sharma	Preference Heterogeneity and Wage Inequality: Implication on Public Good Provisioning	Dr. Rajit Biswas
10.	Kesava Kumar Gajula	Analysis of Unified Payment Interface (UPI) and Debit card technologies using Technological Innovation System framework	Dr. Chidambaran G. Iyer
11.	Madhurjya Deka	Child Under nutrition in India	Prof. U.S. Mishra
12.	Prince Bagaria	Effect of Electoral Factors on the Performance of MP-LADS	Dr. Ritika Jain
13.	Ranjan Sahani	Evolving role of Agriculture in Poverty Reduction: A Post Economic Reform Study on India	Dr. Thiagu Ranganathan
14.	Rounak Sil	Analyzing the nexus between Tax evasion, Tax avoidance and Altruism: A theoretical perspective	Dr. Chidambaran G. Iyer
15	Sandeep Anand	Impact of Prenatal Care on Delivery Pattern in India	Prof. U.S. Mishra
16	Shalini Pathak	"Make in India": An Assessment of its Progress	Prof. Sudip Chaudhuri
17	Shivani Kokate	A Policy Evaluation of the Pradhan Mantri Ujjwala Yojana (PMUY)	Dr. Ritika Jain
18	Thinley Wangchuk	Electric Energy and Economic Development of Bhutan	Dr. Beena P.L.



**Certificate courses at the Centre**  
**(Open only to registered students of CDS)**

**July 2019 to May 2020**

Sl.No.	Name of Course	Instructor	Course Offered
1	Financial Econometrics	Dr. Srikanta Kundu	MA 2 <sup>nd</sup> Year
2	Advanced Economic Theory	Dr. Rajit Biswas/ Dr. Chandril Bhattacharyya	MA 1 <sup>st</sup> Year
3	R. Package	Dr. M. Parameswaran	MA, MPhil and PhD
4	Ethnography: Theory and Practice	Dr. Jayaseelan Raj	MA, MPhil and PhD
5	Behavioral Economics	Dr. Thiagu Ranganathan	MA, MPhil and PhD

**Statement for the MA, MPhil & PhD Programmes during the period 2019-20**

**(2019 April - 2020 March)**

Year	Course	Number of students Applied	Number of Students appeared Entrance Examination	Number of Students Admitted	Number of Students Awarded
2019-20	MA	800	685	16+1 SAARC	21
	MPhil	169	126	6	3
	PhD	-	-	11	3
	Total	969	811	34	27

**(d) SHORT-TERM TRAINING PROGRAMMES**

**Teaching Innovations Programme for College Teachers in Economics (TIPE)**

18 March –12 April, 2019  
 Co-ordinator: Vinoj Abraham

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 organized under the K N Raj Training and Fellowship Programme funded by the Government of Kerala. The current version of the TIPE followed the structure of the earlier version of TIPE conducted

during 2006-11 period. 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 and interactive workshops on specific topics. Four broad topics were covered during the course, Micro Economics, Macro Economics, Econometrics and Issues in Indian Economy.

**Teaching Innovations Programme for College Teachers in Economics (TIPE)**

10-21 February, 2020.

Co-ordinator: M. Parameswaran

In the same year, another training programme, *Teaching Innovations Programme for College Teachers in Economics*



(TIPE), for teachers working in universities and colleges in Kerala was organised by CDS during 10-21 February, 2020. This year 22 candidates were selected for the training programme. The programme also awards a fellowship for one month, for select participants based on their performance in the training programme.

### **A Short-term Training on 'State and Civil Society in Development and Environmental Governance in India' (Norwegian Training Programme)**

02 September – 09 September, 2019

Co-ordinator: Vinoj Abraham

A group of students from the Department of International Development at Norwegian University of Life Sciences (NULS) visited CDS during 2nd September to 9th September, 2019 to undergo their course on development and civil society. Their visit was facilitated as part of a MoU signed between the NULS and CDS. During their stay here the students were given exposure to Kerala's developmental path, its opportunities and challenges. Prof. Sunil Mani, Director, CDS inaugurated the course and Prof. K. P. Kannan gave the introductory lecture. The course consisted of class room lectures and field visits.

The lectures were delivered by CDS faculty and other renowned scholars on Kerala. Field visits illuminated the rural life in Kerala. They also visited a variety of civil society interventions in Kerala such as the Kudumbasree mission, the Mahatma Gandhi Rural employment scheme and the local self-governments. The visitors also immersed themselves in the community life at CDS, participating in various cultural activities of the Centre. They were enthusiastic to interact with the CDS community at large and CDS students in particular. The course was well received and they expressed their deep appreciation for the programme. The course was co-ordinated by Dr. Vinoj Abraham.

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

21-25 October, 2019

Co-ordinators: Abhilash T and Jayaseelan Raj

The centre organised a five-day long capacity building programme for doctoral candidates of SC/ST and other marginalised groups between 21<sup>st</sup> and 25<sup>th</sup> October, 2019. This programme, funded by ICSSR, intends to enhance the research capability of young scholars who otherwise had limited exposure to holistic training in data collection and academic writing. Based on their suitability to the programme, 42 students were selected for training from universities across the country. This year's programme has mainly focused on academic writing and field survey and research methods. The programme has provided students with a concise overview of various forms of academic writing ranging from peer-reviewed Journal article, doctoral dissertations, books and working papers. The workshop has also focused on training students with various research methods, usage of various sources, data base, ethnographic writing and usage of theories in research. The five-day programme consisted of lectures by academics both within and outside CDS. The invited lectures include Dr. Sohnee Harshey (Economic and Political Weekly), Prof. Umesh Bagade (Marathwada University), Dr. Santosh Suradkar (Gondwana University), Dr. K.S. Hari (Gokhale Institute of Politics and Economics) and Dr. Stanly Johny (The Hindu).

### **K.N. RAJ FELLOWSHIPS**

In order to perpetuate the memory of Professor K.N. Raj, the centre has instituted a K.N. Raj Training and Fellowship Programme which aims to improve the curriculum and teaching of Economics in Colleges and University Departments across India, especially Kerala. This is in response to a felt need to improve the quality of economics education at the undergraduate and graduate level. Towards this goal a month long training programme for college and university teachers preferably working in Kerala



is organised at CDS. The programme will also award a fellowship for one month, for select participants based on their performance in the training programme. The focus of the course would be to strengthen the fundamentals of economics education, by providing intensive week long training on specific basic courses.

A training programme, *Teaching Innovations Programme for College Teachers in Economics (TIPE)*, for teachers working in universities and colleges in Kerala was organised by CDS during 10-21 February, 2020. This year 22 candidates were selected for the training programme.

### K.N. Raj Teaching Grant Fellowship

Under this scheme eligible candidates from the participants of the training programme can apply for the K.N. Raj Teaching Grant Fellowship. The fellowship is for candidates to visit the Centre to prepare teaching materials on a specific topic. Selection would be on the basis of their performance in the Training programme. At the end of the award period, the awardee is expected to produce teaching resources such as lecture notes. During the term of the fellowship the awardee will have access to both library and computing resources at the Centre and, if she or he so chooses may be mentored by one of the CDS faculty. This year 4 candidates were selected for the Fellowship.

### ICSSR FELLOWSHIP

Dr. G. Murugan, a recipient of the ICSSR Fellowship joined the CDS as Senior Fellow for a period of two years from February 1, 2018 onwards. His area of study is on 'Entitlements, Institutions and Capabilities: An Application to Drinking Water, Sanitation and Hygiene in Urban India.'

### (e) RESEARCH AFFILIATION

**Mr. Couvreur Charles-Alexis Marie P**, D.Phil Scholar at University of Oxford, England, has been granted research affiliation at the Centre for Development Studies for his

research work on 'Modernization at Sea and on the Coast in Kerala'. Mr. Charles' work while with CDS will be guided by Prof. J. Devika. The proposed period of affiliation is for a period of one year from 19<sup>th</sup> July, 2018 to 18<sup>th</sup> July, 2019.

**Dr. Rachel Simon Kumar**, Associate Professor at The University of Auckland, New Zealand has been granted research affiliation at the Centre for Development Studies for her research work on 'Conservation or Consumption? Redefining women and environment debates in Kerala, India'. Dr. Rachel's work while with CDS will be guided by Prof. J. Devika. The proposed period of affiliation is for a period of one year from 01<sup>st</sup> July, 2018 to 30<sup>th</sup> June, 2019.

**Ms. Darshana S. Mini**, Ph.D Scholar in Cinema and Media Studies at University of Southern California, Los Angeles has been granted research affiliation at the Centre for Development Studies for her research work on 'The Transnational Journey's of Malayalam Soft-porn: Obscenity, Censorship and the Mediation of Desire'. Ms. Darshana's work while with CDS will be guided by Prof. J. Devika. The proposed period of affiliation is for a period starting from 2<sup>nd</sup> September 2018 to April 2019.

**Ms. Anna Eleanor Kathleen Bridel**, Ph.D Scholar at London School of Economics and Political Science, Houghton Street, London has been granted research affiliation at the Centre for Development Studies for her research work on 'Understanding the effects of Climate Change in India'. Ms. Anna's work while with CDS will be guided by Prof. J. Devika. The proposed period of affiliation is for a period of one year from 10<sup>th</sup> May, 2019 to 9<sup>th</sup> May, 2020.

**Ms. Mira Burmeister-Rudolph**, Ph.D Research Scholar at University of Amsterdam- Netherlands, has been granted research affiliation at the Centre for Development Studies for her research work on 'The Policies of India and a second country case towards low-skilled emigrant worker's rights'. Ms. Mira's work while with CDS will be guided by Prof. S. Irudaya Rajan. The proposed period of affiliation is for a period of one year from 18<sup>th</sup> Feb, 2020 to 17<sup>th</sup> Feb, 2021.



## 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. Dr Sunil Mani, Professor & Director, is the Chair Professor. The unit completed a study on 'History does matter, India's efforts at developing a domestic mobile phone manufacturing industry,' and 'Performance of India's National System of Innovation, 2015-2020,' Sponsored by UNESCO, Paris.

Ongoing studies include a study on 'The Saga of Indigenous R&D in India's High Technology Industry the Case of Train 18'. The new initiative is a study on "Frugal innovations for dealing with pandemics, India's innovation capability in digital technologies and in medical devices."

During the year, the unit had several publications in the form of one journal article, two papers in the centre's *Commentary on India's Economy and Society Series* along with one Working paper of the CDS. In addition to this, several workshops, public lectures, panel discussions and new projects were organised during the year. Two seminar papers including lectures were presented at the international level and 9 at the national level. The unit also contributed to the teaching and supervision at all the three academic programmes at the Centre.

### **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.



Professor Manmohan Agarwal was Chair Professor of the RBI Unit on Economic Development till the period March 12, 2019, when he completed his term. In consultation with the RBI, an open advertisement was put up for the post. In response to this, two candidates were shortlisted, of which one was interviewed and offered the position. However, he asked for time until November 2019 to join the Centre, but on that date, he expressed his inability to join resulting in the post remaining vacant.

The Committee of Direction in its meeting of 20 January, 2020 decided to nominate Prof Sunil Mani as Chair Professor of the Unit with effect from February 7, 2020. The activities of the Unit from February to the end of March 2020 will be reported along with the activities for 2020-21 in the Annual Report for that year.

### **Research Unit on Local Self Governments**

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.

The activities planned for the RULSG for 2019-20 in policy engagement, research, and archiving included:

- Policy Roundtable: Preparing Kerala's PRIs for the Implementation of Forest Rights Act in Kerala : November 21, 2019
- CDS-Short Research Series: Ecological Challenges & Local Self Government's Responses in Kerala: 25<sup>th</sup> November 2019
- Lateral Studies Series on Kudumbashree : Three KS papers have been published
- Advocacy Notes : Two Advocay Notes have been published
- Archiving and Digitization.

### **National Research Programme on Plantation Development**

NRPPD at CDS undertakes policy-oriented research on all aspects of India's plantation sector. The programme is 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. Prof Vinoj Abraham was appointed coordinator of the programme in May 2019. Prof K J Joseph, the previous coordinator was appointed Director of the Gulati Institute of Finance and Taxation.

The following studies were initiated during 2019-20.

1. How to confront the challenges in creating farmer producer organizations in coffee?
2. Understanding the performance of Rubber Producer Societies.
3. Whether auction system is suitable for rubber sector, if so, what are the factors required to implement it?
4. A study on the performance of self-help groups or farmer producer organizations with respect to supporting small tea growers.

All the above studies are based on primary survey. Apart from the coordinator other members of the faculty are involved in these studies. In consultation with the respective commodity boards, the concept notes were prepared pilot surveys were completed and primary data collection had started.

In addition to the above, NRPPD has undertaken a study on "Price forecasting model for natural rubber" at the instance of the Rubber Board. Also a presentation on "A comparative study on the performance of producer societies in plantation sector" was done at the Seminar on Kerala and the World Economy, conducted at CDS in February.

### **Research Unit on Kerala and the World Economy**

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. Dr M. Parameswaran is the Convenor of the unit for a period of two years.

In the meantime, the Government of Kerala has accepted a proposal from CDS for establishing an International Migration Centre at CDS. It is 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 will help start the new endowment unit with a corpus of 5 crore, under the title Research Programme on International Migration from Kerala (R-PIMK).

### **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.

Professor T.T. Ram Mohan (Professor, Finance & Accounting IIM, Ahmedabad) delivered the Ninth P.K. Gopalakrishnan Memorial Lecture on "India's Banking Crisis in Perspective," at the Baker Auditorium CDS on 20 September, 2019.

### **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.

Professor Robin Jeffrey (Visiting Research Professor at the Institute of South Asian Studies, Singapore) delivered the Tenth BG Kumar Memorial Lecture on "Swachh Bharat? Swachh World? Garbage and Pollution on a Growing Planet," on 4 September, 2019.

### **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.

During the reporting period, the AD Neelakantan Endowment prize was awarded to Ms. Annesha Mukherjee of the Integrated MPhil/PhD in Economics 2018-20 Batch.

### **Chandrika Sharma Endowment Fund**

Chandrika Sharma did her MPhil in Applied Economics at the Centre during 1993 through 1996. She was in that 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 Ph.D Student. The award will be available from the academic year 2020-21 onwards and the first award under this endowment will be presented 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 Ms. Neha Vinod Betai for the year (2017-19).

#### **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 Mr. Madhurjya Deka for (2018-20).

**(a) K.N. RAJ LIBRARY**

During the year 2019-20 there was further strengthening of print and digital resources of K.N.Raj Library. The library collection was particularly enriched by the addition of personal libraries of two distinguished scholars. Prof. Joan Robinson's collection was donated by her daughter Ms. Barbara Jeffrey in April 2020. Apart from donating his book collection, Prof. Robin Jeffrey visited the library on September 4<sup>th</sup>, 2020 and inaugurated the collection named after him.

**Collected Papers of CDS Founding Fathers**

*As part of the Fiftieth Foundation Year, and also to perpetuate the memory of the Centre's founding fathers, a compiled collection of papers of Prof. K.N. Raj, Prof. P.G.K. Panikar, Prof. T.N. Krishnan, Prof. A. Vaidyanathan, Prof. I.S. Gulati and Prof. N. Krishnaji was released by Prof. Gita Sen on 17th February, 2020 in the presence of the family members of the founding fathers, which was also celebrated as K.N. Raj Memorial Day. The collected papers are kept permanently on display in the Circulation Area of the K.N.Raj Library from February 17, 2020 onwards.*

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 793 books, and 2 CD-ROM / DVD were added to the collection. 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. The library automation software Libsys4x is used by users and staff for the day to day operations and catalogue search.

The K.N.Raj Library subscribes to 76 Print Journals and 12 News Papers. The library also received 57 print periodicals / journals as gift. The subscription to Oxford Online – Social Science collection (86 journals), Wiley Online (22 journals), ProjectMUSE – Social Science collection (113 journals), Science Direct - Economics, Econometrics, and Finance (106 journals) were renewed for the year 2020. Access to theEconLit (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. More than 413 volumes (books and journals) were bound and preserved during the reporting year.

No of Books	793
No of CD-ROM / DVD	2
Journals / Periodicals (Print)	88
e-Journals Database	6 (3326 journals)
StatisticalDatabase	7
Software & AMC support	Libsys
No of items bound and preserved	413

During the reporting period the library membership has increased. A total of 693 new members joined the library out of which 36 are borrowing members and the rest are reference only members. 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 visited 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 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 1432 posts and has received 42386 visits. The following is the URL <http://knrajlibrary.wordpress.com/> of the service. For the convenience of library users, popular social media tools are extensively used to disseminate about the library resources and services, they are (a) Facebook <https://facebook.com/knrajlibrary>, (b) LinkedIn [in.linkedin.com/ in/knrajlibrary](https://in.linkedin.com/in/knrajlibrary), (c) Twitter [https://twitter.com/ knrajlibrary](https://twitter.com/knrajlibrary), (d) Google Plus [https://plus.google.com/117599930063574349978 /about](https://plus.google.com/117599930063574349978/about), (e) ScoopIt [www.scoop.it/t/infoknrl](http://www.scoop.it/t/infoknrl) (f) Content Alert Broadcast Channel on Telegram Messenger App (<https://telegram.org/>), to subscribe to KNRL Content Alert Broadcast Channel on Telegram Messenger App service open [https://t.me/ knrajlibrary](https://t.me/knrajlibrary), and (g) to subscribe to Content Alert Broadcast Channel on WhatsApp Messenger just send a message "[NAME] Add to KNRL Alerts" to +91 9188451892 from your WhatsApp Messenger.

K.N.Raj Library organized book review sessions during this year also. Five book reviews were conducted during the reporting period. All the reviews were well attended and lively.

Four book displays were conducted during the reporting period. The works of Prof. Robin Jeffrey available in the library were kept for display from September 4 - 7, 2019. The works of the Nobel Laureates of 2019 Michael Kremer, Abhijit Banerjee, Esther Duflo available in the library was kept for display during October 15-18, 2019. The works of Prof. Samuel Bowles and Prof. Wendy Carlin were kept for display during October 31 - November 2, 2019. The works of Prof. Ashoka Mody available in the library were kept for



display during November 1-4, 2019. All the displays were kept in the Circulation Area of K.N.Raj Library. They were useful for the CDS community and library users.

A Training Programme on EBSCO e-Resources was organized for the CDS faculty and students on 3-October-2019 (Thursday) from 3 p.m. to 4.00 p.m. Mr. Nanda Lal T. S., Training Manager-South India, EBSCO Information Services was the resource person for the programme. The training programme was lively and useful for the CDS community.

The 2019 batch MA, MPhil and PhD scholars were given an orientation about the library. This included a tour of the library, a power point presentation and a live demo of database and online resources on how to use the library web-page and catalogue. They later met the library staff to familiarize with the library's activities and services.

Masters students from Norwegian University of Life Sciences visited the library on September 2, 2019. A group of 30 students each from St Gregorios College, Kottarakara, St. Joseph's College, Moolamattom, Maharaja's College, Ernakulam, Al Ameen College, Edathala, St. Paul's College, Kalamassery, Sacred Heart College, Chalakudy, Muhammed Abdurahiman Memorial Orphanage College, Kozhikode, and Govt. Arts and Science College, Ollur visited the library on 28<sup>th</sup>, 31<sup>st</sup> January, 5<sup>th</sup>, 24<sup>th</sup>, 26<sup>th</sup>, 28<sup>th</sup> February respectively as part of the 'Walk with the Scholar' scheme of Government of Kerala. All of the above were given tour of the library to familiarize the library collection and services.

External events by staff: 1) V. Sriram delivered a lecture on Reference Management System with Zotero in the XX Refresher Course in Library Science, UGC-HRDC, University of Kerala, Thiruvananthapuram on 16th November 2019. 2) V. Sriram delivered two lectures at the Research Methodology Course for PhD Students in Social Sciences, University of Kerala, Thiruvananthapuram on 5th February 2020 on e-resources, and data sources in social science, and reference management software.

Publication by Staff: A book co-edited by V. Sriram, Chief Librarian was released on July 29<sup>th</sup>, 2019 at the Department

of Library and Information Science, University of Kerala. Its details are "*Corporate and Media Librarianship : A Prelude. Editors : Vijayakumar, K.P.; P.K. Suresh Kumar, and V. Sriram. Thiruvananthapuram: Kerala Library Association, 2019. pp. 316. ISBN: 978-81-927778-0-2.*"

## (b) 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, the 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 80 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.



- 35 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 15, Eviews 9.5, SPSS 22 and Grammarly@edu software as writing assistance for grammar checks in the documents.

### General Facilities

#### • Computer Lab

The computer lab houses 15 PCs with Windows10 / Windows 8.1 and other essential software including statistical packages like STATA and E-Views. These lab has been used for computer-based training programmes and workshops regularly.

#### (b) Students Bay and PhD Bay

Students bay, computation environment, exclusively meant for MA and MPhil students. This centre contains 4 PCs and two printers. PhD Bay is equipped with two computers and a printer, and this facility is exclusively for PhD students. Students Bay and PhD bay are open for students throughout the day.

#### (c) Library

13 PCs have been installed in different locations of the CDS library. These PCs are accessible to all library users.

#### (d) Wi-Fi Facility

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

#### (e) Software for Faculty and student's usage.

Statistical software STATA 15, Eviews 9.5, SPSS 22 and Grammarly@ edu software as writing assistance for grammar checks in the documents are provided to faculty and students for their education and research purposes.

### (c) STAFF WELFARE FUND

The Staff Welfare Fund provides limited grant to last grade employees for marriage of dependent children and financial relief for losses due to natural calamities. The Fund also provides loan to employees for purchase of land for construction of 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, seven applications for loan were approved.

Five children of employees were awarded merit certificates and cash awards for their scholastic performance in public examinations. One of the non-academic staff members was retired during 2019-20, and a grant of Rs.15,000/- was paid to him 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, Senior Assistant Librarian as members.

The Staff Welfare Fund, started in 1999 with an initial corpus from the CDS endowment has investments and loan disbursed to employees amounting to Rs.139.66 lakh as on 31st March, 2020.

## NEW INITIATIVES DURING 2019-20

### **(A) ACADEMIC**

As part of its 50<sup>th</sup> Foundation Year celebrations, the Centre conducted two national seminars in which a total of 32 invited papers were presented.

#### **(a) Seminar on “Kerala and the World Economy”**

A national seminar on “Kerala and the World Economy” was conducted at the Centre during February 3-4, February 2020. Participants of the seminar included authors of the various studies, scholars with specialization on global value chains, invitees from the state government, media and the policy community, faculty and students of the Centre for Development Studies as well as students from the Government College, Nedumangad numbering a total of 100 participants.

The technical sessions covered topics on, Sustainable Development, Commercial Crops, Hi-tech Manufacturing and Modern Industries and Livestock and Fisheries, ending with a Public Lecture on ‘Assessing India’s Free Trade Agreements with East Asian Countries’, which was delivered by Prof Biswajit Dhar, Jawaharlal Nehru University.

On the concluding day two technical sessions were held, one on *Migration, Remittances and Trade Balance* and the other on *Health and Tourism*. At the end of the sessions, a summing up of the seminar and a vote of thanks was delivered by Prof AV Jose, coordinator of the seminar. The papers and proceedings of the seminar will be brought out as a CDS publication.

#### **(b) Seminar on “Indian Economy and Society”**

A seminar on “Indian Economy and Society” was conducted at the Centre during February 7 and 8, 2020. Different sessions were held on themes relating to Agriculture, Labour and Employment; Industry, Innovation and Technology; Corporate Sector. The second day started with a session on Health and Education followed by sessions on Gender; International Trade and Capital Flows; Land and Infrastructure. Two papers, titled “Caste, Courts and Business”



and a paper on “Leveraging Trade Agreements to Boost Export from Indian Engineering Goods Sector” was presented through Skype. The seminar was attended by 87 participants including, speakers, faculty and students from CDS as well as 18 students for the Government College, Nedumangad. At the end of the sessions, a vote of thanks was delivered by Dr Abhilash T, coordinator of the seminar

### (c) Release of Collected Papers of the CDS Founding Fathers and K.N. Raj Memorial Lecture

As part of the Fiftieth Foundation Year, and also to perpetuate the memory of the Centre’s founding fathers, a compiled collection of their papers was released on 17th February, 2020 which was also celebrated as K N Raj Memorial Day.

The volumes of compiled papers of Prof K.N. Raj, Prof. P.G.K. Panikar, Prof. T.N. Krishnan, Prof A. Vaidyanathan, Prof. I.S. Gulati and Prof. N. Krishnaji were released by Prof. Gita Sen in the presence of the family members of the founding fathers before the start of the K.N. Raj Memorial lecture.

### (d) International Migration from Kerala

The Hon’able Chief Minister of Kerala, Shri Pinarayi Vijayan, inaugurated the Kerala Government-funded research programme on “International Migration from Kerala” on 10 December 2019 in a function held at the Baker Auditorium. The programme is based on an Endowment initiated by the Government of Kerala.

At the start of the inaugural session, Prof Sunil Mani in his welcome address outlined the role played by CDS in earlier studies on migration for the last decade or so. He pointed out that it was the brainchild of the Chief Minister to initiate the new research programme on Migration from Kerala which is to be carried out by CDS. The presidential address was delivered by Mr KM Chandrasekhar, Chairman, CDS.

In his inaugural speech, the Hon’able Chief Minister pointed out that under the programme the following four programmes are envisaged every year.

1. Research on Issues related to International Migration from Kerala.
2. Conduct of post-experience training programmes in migration research.
3. Creation and maintenance of a searchable database on international from Kerala.
4. Organising a two-day seminar on Kerala and the World Economy.

Shri Hari Krishnan, CEO of Norka also spoke on the occasion. This was followed by a presentation on *Recent Trends in International Migration from Kerala* by Prof Irudaya Rajan and a presentation on *Gender Aspects of International Migration from Kerala* by Prof Praveena Kodoth. At the end of the programme, Prof Sunil Mani reiterated that CDS is very much thankful to the Government of Kerala for its generous support.

### (e) Workshop on ‘CORE: The Economy’

A workshop was organised by The Azim Premji University, in collaboration with CDS, for economics faculty of the affiliated colleges of the University of Kerala on 31 October, 2019. The objective of the workshop was to introduce the participants to the textbook ‘CORE: The Economy,’ and involve them in the global community of teachers and researchers of CORE.

The participants numbering 22 consisted of teachers of Economics at colleges affiliated to the University of Kerala. Professor Arun Jayadev and Rahul De from The Azim Premji University spoke on the ‘Introduction to CORE in India’ and ‘Teaching CORE Units 4 and 5.’

This was followed by sessions on ‘Core and its teaching materials,’ which was delivered by Prof Wendy Carlin (University College, London), and Prof Samuel Bowles (Santa Fe Institute, New Mexico). Ms Gopika GG, Assistant Professor at the Govt College, Nedumangad shared her experience of teaching CORE in the University of Kerala. At the close of the workshop, a discussion on planned uptake on CORE and further plans was also discussed.



### (f) Workshop on Agrobiodiversity

The Centre was commissioned by UNO FAO India to do an evaluation of the policies and laws in the state of Kerala with respect to the management of agrobiodiversity. CDS has since completed the study and the final report, 'Institutional Support for management of agrobiodiversity in Kerala, (2019)' by Mani, Sunil, Mohanakumar S M, Santhakumar V and Abhilash, T (2019), was presented at a Workshop at CDS on 21st of August 2019. The workshop was attended by representatives of FAO India, the State Biodiversity Board, the State Planning Board, leading Public Research Institute and a leading NGO.

Abstract of the report: Kerala is one of the most biodiverse states in the Indian union. The state has put in place an elaborate network of policies and institutions to maintain and indeed promote agrobiodiversity in the state. The present paper undertakes a detailed review of these by evaluating the policies and laws that impact on agrobiodiversity either positively or negatively. It further considers the role of public research institutes that generate the requisite knowledge for maintaining biodiversity and the cases of a number of local self-governments which have been successful in promoting agrobiodiversity. The public research institutes and nongovernmental organizations have played an important role in not just generating newer plant varieties and but

also play a very important role in conserving existing varieties. Based on the analysis, the study identifies a number of researchable issues that may be taken up in future, which will essentially contribute to the management of and mainstreaming of agrobiodiversity in the state. The ensuing analysis shows that while the state has a number of exemplary policies, laws and practices, its success at the level of local self-governments depends crucially on whether agrobiodiversity is tied to the livelihood strategies of ordinary people. Further, it also depends on the presence of certain key mentors or charismatic leaders within the local self-governments who can make a crucial difference. Merely relying on institutional forms such as Biodiversity Management Committees and People's Biodiversity Registers are unlikely to produce the desired results.

### (g) 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 2019-20 are given below:**

#### Visiting Professors/Fellows at the Centre 2019-20

Sl No	Category and Name	Home Institution	Area	Terms of Appointment
<b>Category 1A: Lecture only</b>				
1	Prof. James Nedumpara	Centre for International Trade and Investment Law (CTIL) at the Indian Institute of Foreign Trade (IIFT), New Delhi	Trade & Investment Agreements	26.02.2018 (Two years)
2	Prof. Krishnendu Ghosh Dastidar	JNU, New Delhi	Game Theory	15.04.2018 (Two years)
3	Prof. Sujoy Chakravarty	JNU, New Delhi	Microeconomics / Behavioural Economics	09.05.2018 (Two years)





Sl No	Category and Name	Home Institution	Area	Terms of Appointment
4	Prof. Madhura Swaminathan	ISI, Bangalore Centre	Agriculture Economics	09.05.2018 (Two years)
5	Prof. Sukhpal Singh	IIM – Ahmedabad	Agriculture Economics	09.05.2018 (Two years)
6	Dr Suraj Jacob	Azim Premji –Bangalore	Project Evaluation	15.12.2019 (One Year)
7	Prof. Sebastian Morris	IIM – Ahmedabad	Infrastructure Financing/ Applied Macroeconomics/ Indian Economy	Visiting Professor- 1 year from April 1, 2020
8	Dr.Dilip K Dutta	University of Sydney	Econometrics Macro Economics	Visiting Fellow – 1 year from April 1, 2020
9.	Prof.R. Nagaraj	IGIDR	Indian Economy	Visiting Professor- 1 year from October 1, 2020
<b>Category 1B: Lecture and Paper</b>				
10.	Mr. R Mohan	Indian Revenue Service (Retd)	Public Finance	17.01.2018 (Two years)
11.	Dr. Ravi Raman	Kerala State Planning Board	Political Economy	Two years- April 2020
12.	Prof. Pulapre Balakrishnan	Ashoka University, Haryana IIM - Kozhikode	Applied Macroeconomics	Two years – April 2020
<b>Category 2: Fixed Term Appointment</b>				
13.	Prof. Sudip Chaudhury	IIM - Kolkata	Macroeconomics/Industrial Economy of India	01.10.2018 (Two years)
<b>Category 3: Foreign scholar</b>				
14.	Prof. Frances Stewart	Oxford University	Development Economics	30.09.2018 to 07.10.2020
15.	Prof. Ravi Kanbur	Cornell University	Development Economics	21.10.2018 to 28.10.2020
16.	Prof. Tirthankar Roy	London School of Economics	Economics History and Political Science	09.04.2018 (Two years)
17.	Prof. Thankom Arun	University of Essex	Economics	01.08.2018 (Two years)
18.	Prof. T V Paul	McGill University	Political Science/ International Relations	01.01.2019 (Two years)



### **(h) Certificate Courses and Non- certificate Courses**

Five new certificate courses have been initiated this year. For more details kindly refer to page 127.

### **(i) Academic Targets**

To enhance and improve the output of faculty, each member is expected to teach one course each in the MA and MPhil programmes. In addition to this, they are expected to bring out two working papers in a block of two years from 2017-18 onwards.

Centre is planning to start two Post-Doc positions in the academic year of 2020-21, subject to its funding by Government of Kerala which has included this in the plan budget. But administrative sanction from the state government is still awaited. In the meantime, Centre has framed detailed rules and procedures for the selection of potential candidates and their subsequent management. CD approved the request to start this new activity this year, depending upon the availability of funds or to postpone to the next academic year 2021-22 if sufficient funds are not available.

### **(j) Welfare**

This year the CDS introduced a tuition and hostel fee waiver for economically weak but meritorious students pursuing their MA Programme. A fund was also instituted to provide financial support to meet abnormal health expenditures since the last financial year 2018-19.

## **(B) SUPPORT SYSTEMS**

### **Improvement in Recreation Facilities**

During the period (2019 April – 2020 March), a large number of guests stayed at the Guest House for different kinds of personal and official purposes. A total of 552 guests were put up at the guest house on different occasions, which included those from Kerala, other states and international guests too. Guests from abroad stayed for participating in programs at the Centre as well as for personal reasons.

Accommodation was provided for important guest from Kerala State Planning Board, College of Engineering, Rubber Board, Kerala University, Kudumbasree and KSCSTE. For participating in seminars & training programs a large number of students & research scholars stayed in guest house. During this tenure Centre coordinated different kinds of projects and programs like TIPE, REALM, RULSG, UAE Exchange, AIDE, CORE TTP etc. Most of the participants and resource persons related with these programs comprised of students of the Norwegian University, students and resource persons who attended seminars like ICSSR Capacity Building Program, KN Raj Fellowship Programs, Azim Premji University Program. In addition to this, CDS has its own official meetings like Governing Body Meetings, JNU-CDS Committee of Direction Meetings, Finance Committee Meetings and members of JNU Scrutiny Team. A large amount of students from both inside and outside Kerala booked accommodation to enable them stay to use library & other facilities inside the campus. As in previous years Kerala State Planning Board officials, and other government official make use of these guest house facilities which are open to them for use. Online room booking facility through e-mails, updates & telephonic confirmations are also provided as per the necessity of the guest.

Providing a better homely atmosphere to guests is the prime concern of the Guest House. Facilities like electric kettles, tea making items, television, and hot water is available in all rooms. A fresh set of bed sheets, towels, soaps are providing in all rooms. Metallic mosquito netting and mosquito repellants are also provided. Televisions are tuned for watching both national and international channels. Secured Wi-fi Facilities are fully available in all rooms. Separate Wi-Fi amplifiers embedded in two parts of rooms ensure easy and strong access. All the toilets have been fitted with brand new fittings. Water purifiers located in common areas provide safe and clean drinking water. An efficient maintenance team ensures an uninterrupted supply of electricity and water. All rooms are cleaned daily providing maximum hygiene in all situations.



Supervision of the guest house is managed by Mr Anoop Kumar P.P, Asst. Campus Supervisor, with additional charge as Guest House Manager who provides all the expertise and guidance to running of the Guest House.

Saibabu. S, working as the Guest House Attendant for the last five years takes care of room arrangements, cleaning management and maintenance reporting. Sumesh CS, Attendant, is also responsible for taking care of the guest house functioning after office hours and on holidays and in the absence of Mr Saibabu.

In addition to his official duties Saibabu is also into Travel Writing, Vlogging on several Social Media Platforms. Hosting a Youtube Channel “Roaming With Sai”, with several Travel Videos, Book Reviews etc. Doing Podcasts on several platforms on subjects like traveling, books and other social subjects.

Youtube: <https://www.youtube.com/channel/UCWIsjNATE6iuVWTfAfTz7qw>

Podcasts: <https://anchor.fm/roamingwithsai/episodes/ep-edks7v>



Professor K. Satyanarayana, Dean, School of Interdisciplinary Studies EFL-U, Hyderabad, is seen sharing his views on the topic 'Casteist Speech: Free Speech or Injurious Acts' at the Second BR Ambedkar Memorial Lecture held at the CDS on 30 April, 2019.



Professor K.P. Kannan, former Director and Fellow, CDS speaking at the Panel Discussion on 'Indian Economy in the Context of Economic Survey 2018-19 and Union Budget 2019-20,' held at the Joan Robinson Hall on 17 July, 2019.



Three diplomats from the US diplomatic missions in India, Ms Isabella D. Detwiler, Deputy Minister Counselor, Economic, Environment, Science and Technology Affairs, Embassy of the USA, New Delhi; Ms Sara D. Greengrass, Political/Economic Consul, U.S. Consulate General Chennai and Mr George Mathew, Economic Specialist, U.S. Consulate General Chennai visited CDS on Wednesday 25th of July, 2019.



Professor Sunil Mani, Director, welcomes all the new students to the academic year, 2019-20 in a function held in the Baker Auditorium on 1 August, 2019.





Workshop on Agrobiodiversity in session at the CDS attended by representatives of FAO India, the State Biodiversity Board, the State Planning Board, leading Public Research Institute and a leading NGO on 21 August, 2019.



Students from the Department of International Development at Norwegian University of Life Sciences (NULS) who attended the Short-term Training on 'State and Civil Society in Development and Environmental Governance in India' at CDS during 2-9 September, 2019.



Professor Robin Jeffrey (Visiting Research Professor at the Institute of South Asian Studies, Singapore) delivering the Tenth BG Kumar Memorial Lecture on "Swachh Bharat? Swachh World? Garbage and Pollution on a Growing Planet," on 4 September, 2019 at the Baker Auditorium, CDS.



Professor T.T. Ram Mohan (Professor, Finance & Accounting IIM, Ahmedabad) delivering the Ninth P.K. Gopalakrishnan Memorial Lecture on "India's Banking Crisis in Perspective," at the Baker Auditorium CDS on 20 September, 2019.



Participants of the ICSSR sponsored Capacity Building Programme, Pathways of Social Research: A Methodological Training programme held at CDS during October 21-25. Dr T Abhilash, coordinator of the programme is also seen on the dais.



Prof Wendy Carlin, University College, London delivering a session on 'Core and its teaching materials,' at the Workshop on 'CORE: The Economy,' held at the CDS on 31 October, 2020.



Professor Ashoka Mody (Charles and Marie Robertson Visiting Professor in International Economic Policy at the Woodrow Wilson School, Princeton University) is seen delivering the Eighth Foundation Day Lecture on "India: from Promise to Hubris" at the Baker Auditorium CDS on 1 November, 2019.



Shri Binoy Viswam, Rajya Sabha Member and national secretary member of CPI addressing the Round Table on 'The Strengthening of the Panchayaths in Kerala for the Effective Implementation of the Forest Rights Act' organised jointly by the CDS (RULSG Unit) and the Azim Premji University held at the CDS on 12 November, 2019.



The Hon'able Chief Minister of Kerala, Shri Pinarayi Vijayan, inaugurating the Kerala Government-funded research programme on "International Migration from Kerala" at a function held at the Baker Auditorium, CDS on 10 December, 2019.



Professor Praveena Kodoth, Ms Nalini Netto, Professor T.K. Sundari and Dr Raman Kutty on the dais of the 'National Seminar on Kerala and the World Economy' during the Technical Session on Health and Tourism during 3-4 February, 2020.





A session in progress at the National Seminar on "Indian Economy and Society" conducted at the CDS during February 7 and 8, 2020.



Participants of the Teaching Innovations Programme for College Teachers in Economics (TIPE), attending a lecture by Prof Sudip Chaudhuri, CDS at the training programme organised by CDS during 10-21 February, 2020.



Professor Gita Sen (Director & Distinguished Professor, Ramalingaswami Centre on Equity & Social Determinants of Health (RCESDH), Public Health Foundation of India, Bangalore) delivering a lecture on 'Reflections on the Contribution of Professor Raj' to commemorate the memory of Prof. KN Raj on 17 February, 2020.



Professor Gita Sen releases a compiled collection of papers of Prof. K.N. Raj, Prof. P.G.K Panikar, Prof. T.N. Krishnan, Prof. A. Vaidyanathan, Prof. I.S. Gulati and Prof. N. Krishnaji, to perpetuate their memory, in the presence of their family members as part of celebrating Centre's Fiftieth Foundation Year, as well as observing K N Raj Memorial Day on 17 February, 2020.



Delegation from the High Commission of Canada in India led by Consul General Nicole Girard, accompanied by Consul & Senior Trade Commissioner, Eric Robinson and Second Secretary, Political and Economic Affairs, Jake Thomas on Friday 29 March, 2020.

# GOVERNANCE AND ORGANISATIONAL STRUCTURE (As on 31 March, 2020)

## COMMITTEES

### Committee of Direction

K.M. Chandrasekhar (Chairman)

Ajay Dubey

J.V. Meenakshi

A. Jayathilak

Virendra Kumar Malhotra

U.S. Mishra

Sunil Mani (Convenor)

### Finance Committee

K.M. Chandrasekhar (Chairman)

C. Rammanohar Reddy

A. Jayathilak

Virendra Kumar Malhotra

Gabriel Simon Thattil

Praveena Kodoth

Sunil Mani (Convenor)

### JNU-CDS Committee of Direction for MA/MPhil/ PhD Programmes

Sunil Mani, Director, CDS (*Chairman*)

Satish Chandra Garkoti (Rector II, JNU, New Delhi –Special Invitee) Special Invitee

Pradipa K. Chaudhury (*JNU, New Delhi*)

Subrata Guha (*JNU, New Delhi*)

P. Kanagasabapathi (*Coimbatore*) Narendra Kumar Taneja, (*VC, Charan Singh University, Meerut*)

Praveena Kodoth (*CDS*)

J. Devika (*CDS*)

M. Parameswaran (*CDS*)

Rajit Biswas (*CDS*)

Ritika Jain (*CDS*)

Jayaseelan Raj (*CDS*)

Satish Chandra Garkoti (*Rector II, JNU New Delhi*)

S. Suresh Kumar, CDS (*Convenor*)

### Academic Programme Co-ordinators

*M.Phil Programme:*

J. Devika (Co-ordinator)

Ritika Jain (Associate Co-ordinator)

*PhD Programme:*

Praveena Kodoth (Co-ordinator)

Jayaseelan Raj (Associate Co-ordinator)

**MA. Programme:**

M. Parameswaran (Co-ordinator)  
Rajit Biswas (Associate Co-ordinator)

**Faculty Committee**

Sunil Mani (Chairman)  
U.S. Mishra (Convenor)  
K.J. Joseph (On deputation to GIFT)  
S. Irudaya Rajan  
K.N.Harilal (on deputation to Kerala State Planning Board)  
Praveena Kodoth  
J. Devika  
Vinoj Abraham

**Academic Committee**

Sunil Mani (Chairperson)  
Rajit Biswas (Convenor)  
All faculty (Members)  
Registrar (Member)  
Chief Librarian (Member)  
Systems Officer (Member)  
Publications Officer (Member)  
Vidyanand Thombare (MPhil II Year representative)  
Aishwarya Prakash (MPhil I Year representative)  
Trishna Boruah, (MA II Year representative)  
Jatin Sharma (MA I Year representative)

**Academic Programme Committee**

Sunil Mani (Chairperson)  
M. Parameswaran (Convenor)  
All Faculty (Members)

**Library Committee**

Hrushikesh Mallick (Chairman)  
V. Sriram (Chief Librarian)

Ritika Jain  
Abhilash T  
S. Suresh Kumar (Registrar)  
Ansamma Joseph  
Rajkumar Byahut (Student Representative)  
Sabeer VC (Student Representative)  
Prince Bajaria (Student Representative)

**IT Committee**

Beena P.L. (Chairman)  
V. Sarath (Convenor, Ex-officio)  
Srikanta Kundu  
S. Suresh Kumar (Registrar, Ex –officio)  
V. Sriram, (Chief Librarian, Ex –officio)  
Sourish Dutta (Student Representative)

**Ethics Committee**

US Mishra (Chairman)  
Praveena Kodoth (Member)  
Vinoj Abraham (Member)

**Hostel Wardens**

M. Parameswaran  
Tirtha Chatterjee

**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



### 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)  
T.S. Geetha Devi (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)

### Grievance Redressal Committee

S. Suresh Kumar (Registrar)  
Praveena Kodoth  
Ritika Jain  
Lekha K.

### Committee Against Sexual Harassment

Praveena Kodoth (Chairperson)  
Elsamma Praikalam (Advocate)  
Vinoj Abraham  
Radhamoni K  
Ansamma Joseph  
Vipitha V (Student Representative)  
Kashif Mansoor (Student Representative)

### Campus Committee

J. Devika (Chairperson)  
Suresh Kumar S, Registrar (Ex-Officio) (Convenor)  
Praveena Kodoth, (GHMC Chairperson) (Ex-Officio) (Member)  
Ajikumar A R (Member)  
Aanandh N R (Member)  
Anoop Kumar P P (Member)  
Sachu R Sunny (PhD representative)  
Amit Nandan, (MPhil II Year Representative)  
Rahul Kamal (MA II year representative)

### 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, Innovation Policy, Intellectual Property Rights, High Technology Industry

### Professors

#### Joseph K. J.

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)

*Research Area:* Migration and Human Development, Health and Education

#### Udaya Shankar Mishra

Ph.D in Population Studies  
(IIPS, Bombay)

*Research Area:* Gender and Development, Human Development, Health and Education

#### Harilal, K.N.

Ph.D in Economics  
(CDS/JNU)  
(On deputation to Kerala  
State Planning Board)

*Research Area:* International Political Economy, Regional Economy of Kerala, Rural Development and Agrarian Relations, Local Governments and Democratic Decentralisation

#### Praveena Kodoth

Ph.D in Economics  
(University of Hyderabad)

*Research Area:* Gender and Development, Migration Labour, Employment and Social Security

#### Devika, J.

Ph.D in History  
(MG University)

*Research Area:* History of, and present developments in, Gender, Politics, Development, and Culture in Kerala; the history of Migration and Cosmopolitanism in Kerala; local self- government in Kerala; translations and translation studies; Malayalam literature; contemporary politics.

#### Vinoj Abraham

Ph.D in Economics  
(JNU)  
(Promoted to Professor  
w.e.f 12.02.2020)

*Research Area:* Labour, Employment & Social Security  
Gender & Development, Plantation Crops, Innovation & Technology





### Associate Professors

**Vijayamohanan Pillai, N.**

Ph.D in Economics -Econometrics  
(Madras University)  
(Retired on 31 November, 2019)

*Research Area:* Energy Economics, Political Economy;  
Development Studies, Statistics and Econometrics

**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:* Macroeconomic Performance, Industry and Trade

**Hrushikesh Mallick**

Ph.D in Economics  
(University of Mysore)

*Research Area:* Macroeconomic Performance

**Chidambaran G. Iyer**

Ph.D in Development  
Economics  
(IGIDR)  
(Joined 26 August, 2019)

*Research Area:* Technology, Innovation, Productivity, Spillovers

**Thiagu Ranganathan**

Ph.D in Economics  
(IIT, Bombay)  
(Joined 31 October, 2019)

*Research Area:* Agricultural Economics; Human Development Health and  
Education; Gender and Development; Labour,  
Employment and Social Security; Plantation Crops

### Assistant Professors

**Sunandan Ghosh**

Ph.D in Economics  
(Jadavpur University)  
(On leave from 29 July, 2019)

*Research Area:* Industry and Trade, Labour Employment and Social Security,  
Macroeconomic Performance

**Srikanta Kundu**

Ph.D in Quantitative Economics  
(Indian Statistical Institute)

*Research Area:* Time Series, Macroeconometrics,  
Financial Econometrics, Development Economics

**Ritika Jain**

Ph.D in Economics  
(IGIDR)

*Research Area:* Industry and Trade, Politics and Development,  
Labour Employment and Social Security

**Rajit Biswas**

Ph.D in Quantitative Economics  
(Indian Statistical Institute)

*Research Area:* Industry, Trade and Political Economy,

**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 and Politics and Development  
and Social Life, Ethnographic Methods

**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)  
(Joined on 1 November, 2019)

*Research Area:* Agricultural Economics, Development Economics

**RBI Chair Professor****Manmohan Lal Agarwal**

Ph.D in Economic  
(Massachusetts Institute of  
Technology, USA)  
(Service ended on  
31 May, 2019)

*Research Area:* History of International Monetary System,  
Implication of Establishment of New Development Bank  
Analysis of Structural Change in Indian Economy and  
Performance of the Indian Manufacturing Sector

**Honorary Fellows****Vaidyanathan A.**

Former Fellow, CDS

**Krishnaji N.**

(Passed away on 7 November 2019)

Former Fellow, CDS



<b>Zachariah K.C.</b>	Former Senior Demographer, The World Bank, Washington D.C.
<b>Amit Bhaduri</b>	Emeritus Professor, Jawaharlal Nehru University, New Delhi
<b>Mathew E.T.</b>	Former Professor and Head, Department of Economics, University of Kerala
<b>Jayachandran T.N.</b>	Former Vice Chancellor, Calicut University, Kerala
<b>Oommen M.A.</b>	Former Professor and Head, Department of Economics, University of Calicut, Kerala
<b>Damodaran A.D.</b>	Former Director, Regional Research Laboratory, Thiruvananthapuram
<b>Rao G.N.</b>	Former Fellow, CDS
<b>Thomas Isaac T.M.</b>	Former Fellow, CDS
<b>Mridul Eapen</b>	Former Fellow, CDS
<b>Kannan, K.P.</b>	Former Director and Fellow, CDS
<b>P. Mohanan Pillai</b>	Former Fellow, CDS
<b>P. Sivanandan</b>	Former Fellow, CDS
<b>Honorary Visiting Professor</b>	
<b>A.V. Jose</b> Ph.D in Economics (University of Kerala)	<i>Research Area:</i> Social and Labour Policies, Social Protection
<b>Visiting Research Fellow</b>	
<b>R. Mohan</b> MPhil in Applied Economics	<i>Research Area:</i> Public Finance, Centre-State Relation with focus on Devolution of Resources & Kerala Public Finance, Trends in India's Economic Growth
<b>James J. Nedumpara</b> PhD (New York)	<i>Research Area:</i> International Trade Law
<b>Visiting Professor</b> (Fixed term appointment)	
<b>Sudip Chaudhuri</b> PhD (JNU)	<i>Research Area:</i> Pharmaceutical Industry, Economics of Patents, India's Industrialisation.



## ADMINISTRATION

S. Suresh Kumar	<i>Registrar</i>
Shareef H.S.	<i>Assistant Administrative Officer</i>
Ajikumar A.R.	<i>Administrative Assistant (designated as PS to Registrar)</i>
K. Lekha	<i>Receptionist cum Public Relations Assistant</i>

## Academic Programme Office

T.S. Geetha Devi	<i>Assistant Administrative Officer</i>
Raji R.S.	<i>Junior Administrative Assistant</i>
Arun K.C.	<i>Junior Administrative Assistant</i>

## Faculty Support Services

Emmanuel T.J.	<i>Personal Assistant</i>
Satheesh S.S.	<i>Junior Administrative Assistant</i>

## Guest House

Shareef H.S.	<i>Assistant Administrative Officer (designated as Guest House Manager upto 18.9.2019)</i>
Saibabu S.	<i>Attendant</i>
Sumesh C.S.	<i>Attendant</i>

## Publications

Tilak Baker	<i>Publication Officer</i>
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## Finance

S. Suresh	<i>Senior Finance Officer</i>
Arun Hrishikesh	<i>Asst Accounts Officer</i>
K.Radhamoni	<i>Asst Accounts Officer</i>
Reeshma R.S.	<i>Jr. Accountant</i>
Biju R.S.	<i>Attendant</i>

## Internal Audit Officer on deputation from AG's Office

Venukumar V	<i>Accounts Officer cum Internal Auditor (Deputation ended on 31 December, 2019)</i>
M.P. Tharun Kumar	<i>Internal Audit Officer (Joined on 1 January, 2020)</i>



### Director's Office

Praveen G.	<i>Section Officer (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 w.e.f. 19.9.2019)</i>
G.Vijayan	<i>Attendant</i>

### Transport

V. Surendran	<i>Driver Grade I (Retired on 31 January, 2020)</i>
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### COMPUTER CENTRE / IT

V. Sarath	<i>Systems Officer</i>
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### K.N. RAJ LIBRARY

V. Sriram	<i>Chief Librarian</i>
Ansamma Joseph	<i>Senior Assistant Librarian (Promoted as Deputy Librarian w.e.f. 18 September, 2019)</i>
G.P. Anitha	<i>Senior Assistant Librarian (Promoted as Deputy Librarian w.e.f. 18 September, 2019)</i>
Ameer Ali	<i>Assistant Librarian (Promoted as Senior Assistant Librarian w.e.f. 18 September, 2019)</i>
S. Gopakumar	<i>Assistant Librarian (Promoted as Senior Assistant Librarian w.e.f. 18 September, 2019)</i>
Sivakumar P	<i>Junior Assistant Librarian</i>
Sumesh C.S.	<i>Attendant</i>





### **Internal Complaints Committee Report (2019-20)**

- a. Number of complaints of sexual harassment received in the year:

A complaint was received from the agency that sub contracts cleaning workers that one of the women staff was sexually harassed by a male contract worker. The woman concerned expressed her desire to resolve the matter through a process of acknowledgment and reconciliation. The chairperson and a member of the committee convened a meeting with the accused, the complainant and a member of the contracting agency and the matter was resolved after the accused acknowledged that he had acted wrongly and apologized. The accused accepted the apology.

- b. Number of complaints disposed off during the year: One
- c. Number of cases pending for more than ninety days: None
- d. Number of workshops or awareness programme against sexual harassment carried out: One for the incoming students of M. A., M. Phil and Ph D and one for the administrative staff
- e. Nature of action taken by the employer: (see above – a.)

## RESEARCH TITLES

**(a) CULTURE AND DEVELOPMENT****Completed Studies****1. Crisis and Retirement: Alienation in Kerala's Tea Belt**

Jayaseelan Raj

Status: Published in *Focaal: Journal of Global and Historical Anthropology* 86 (2020); 84-96

**(b) DECENTRALISATION AND GOVERNANCE****Completed Studies****2. Regulation and its Effect on Cost Efficiency in Electricity Distribution: A Use of Stochastic Cost Frontier Analysis for the Indian States**

Hrushilesh Mallick and Amit Nandan (Doctoral Scholar)

Status: A revision is submitted to a journal for publication

**Ongoing Studies****3. Local Governments and Cronyism in Kerala: A Case Study of Pallichal Gram Panchayat**

J. Devika, S. Mohanakumar (Institute of Development Studies, Jaipur) and Archana Ravi (Freelance Journalist)

Status: - Ongoing; deadline for presentation at CDS is Nov 2020. To be considered for inclusion in the

CDS-RULSG Monograph Series on Ecological Challenges and Local Self-Government Responses in Kerala

**4. Local Governments and the Politics of Post-Disaster Planning: The Case of the Puthenvelikkara Panchayat**

J. Devika, Anamika Ajay (National Institute of Advanced Studies, Indian Institute of Science Campus, Bengaluru), Arathy MR (Freelance Journalist)

Status: Ongoing - Approval has been secured in March 2019; fieldwork yet to start. To be considered for inclusion in the CDS-RULSG Monograph Series on Ecological Challenges and Local Self-Government Responses in Kerala

**(c) GENDER AND DEVELOPMENT****Completed Studies****5. 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



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

J. Devika

Status: Accepted a chapter in book edited by Nissim Mannathukaren and Yasser Arafat, forthcoming in 2021, Routledge India

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

J. Devika

Status: To be presented at a seminar at ICAS organized by Janaki Nair and Mary E John

**New Initiatives**

**8. Education, and Income Homogamy, and Women's Autonomy in India**

Thiagu Ranganathan and Avina Mendonca (Assistant Professor, Indian Institute of Management Nagpur, IIM Nagpur)

Status: New Initiative (Expected date of completion: April 2020)

**(d) HUMAN DEVELOPMENT, HEALTH AND EDUCATION**

**Completed Studies**

**9. Whether Levels of Education Matter for Environmental Quality in Selected BRICS Countries? The Role of Renewable and Non-Renewable Energy Demand with Some New Policy Perspective**

Hrushikesh Mallick, Mantu Kumar Mahalik (IIT, Kharagpur) & Hemachandra Padhan (IIT, Madras, Chennai)

Status: Submitted to a journal

**10. Household Assets and Wealth Quintiles, India 2006-16: Insights on Economic Inequalities**

Udaya Shankar Mishra and William Joe (Institute of Economic Growth, Delhi)

Status: Economic and Political Weekly, Vol.55 (6), 8 Feb 2020

**11. Determinants of Inequality in Caesarean Delivery in India: A Decomposition Analysis**

Udaya Shankar Mishra, Basant K Panda (IIPS, Mumbai) and Itishree Nayak (IIPS, Mumbai)

Status: Health care for Women International 2020, Jan 13;1-16. doi: 10.1080/07399332.2020.1711757.

**12. Literacy Achievement in India: Across the States and Over the Age Cohort**

Udaya Shankar Mishra and Vachaspati Shukla (Sardar Patel Institute of Economic and Social Research, Ahmedabad)

Status: Economic and Political Weekly, Vol.54 (48), 7 Dec 2019 <https://www.epw.in/journal/2019/48/special-articles/literacy-achievement-india.html>

**13. Rising Extent of Caesarean Delivery and Its Differential Access in Regions of India 2005-2016**

Udaya Shankar Mishra, Basant K Panda (IIPS, Mumbai) and Sanjay Mohanty (IIPS, Mumbai)

Status: Journal of Public Health: From Theory to Practice

**Ongoing Studies**

**14. Senior Citizens of India: Emerging Challenges and Concerns (Book)**

S. Irudaya Rajan and U.S. Mishra

Status: Ongoing (Expected date of completion: May 2020)

**15. Unmet Need: Whose Need and What is Unmet?**

Udaya Shankar Mishra and Basant K Panda (IIPS, Mumbai)

Status: Ongoing (Expected date of completion: March 2020)

**16. On Verifying the Genuineness of Rising C-section Deliveries in India**

Udaya Shankar Mishra and Basant K Panda (IIPS, Mumbai)

Status: Ongoing (Expected date of completion: March 2020)

**17. Unnatural Deaths in India**

Udaya Shankar Mishra and Basant K. Panda (IIPS, Mumbai)

Status: Ongoing (Expected date of completion: April 2020)

**18. Gauging the improvement in Economic Status of Indian Households: Evidence based on NFHS**

Udaya Shankar Mishra, Basant K. Panda (IIPS, Mumbai) and Rinju

Status: Ongoing (Expected date of completion: June 2020)

**Completed Research Projects****19. Relative contributions of adult daughter and sons to elderly parents' care in India**

S. Irudaya Rajan and Sharada Srinivasan (University of Guelph, Canada)

Sponsor: IDG, Canada

Status: Planning for Journal Articles

**20. Resource Allocation in lieu of State's Demographic Achievements in India: An Evidence Based Approach**

S. Irudaya Rajan and Udaya S. Mishra

Sponsor: 15th Finance Commission, Govt. of India

Status: Report, CDS Working Paper

**New Initiatives****21. Assessing Development of Indian States over time**

M. Parameswaran, Manmohan Agarwal, and Amit Shovan Ray (JNU)

Status: New initiative

**(e) INDUSTRY AND TRADE****Completed Studies****22. Structure, Direction and Export contribution of Kerala State: With special reference to Cochin Special Economic Zone**

P.L. Beena, Pradeesh Kumar S (Researcher) and George Paily (Doctoral Scholar)

**23. World Development Report 2020: Trading for Development in the age of Global Value Chains**

Chidambaran G. Iyer, Byahut R. (Doctoral Scholar), Dutta S. (Doctoral Scholar), Nataraj M. (Doctoral Scholar)

Status: Commentary on India's Economy and Society Series – 11, CDS

**24. Efficiency of Indirect Taxes**

Rajit Biswas and Neelanjan Sen (Madras School of Economics)

Status: Under revision in International Journal of Industrial Organization.

**25. How Effective has been Government Measures to Control Prices of Anti-Cancer Medicines in India**

Sudip Chaudhuri

Status: CDS Working Paper No 490, December, 2019

**26. Are Medicine Prices High and Unaffordable after TRIPS? Evidence from Pharmaceutical Industry in India**

Sudip Chaudhuri

Status: CDS Commentary on India's Economy and Society Series No 10, December, 2019

**Ongoing Studies****27. Is there any Complementarity between Aid, Trade and FDI from India? A Case Study of South Asia Region**

Beena P.L. and Meena Abraham Chacko

Status: Ongoing (Plan to publish in a journal)

**28. Growth Dynamics of Handloom Sector in Kerala: A Case Study of Chendamangalam Handloom Industry**

Beena P.L. and P. Kavitha (Doctoral Scholar)

Status: Ongoing (Plan to publish in a journal)

**29. The Combined Impact of Trade Wars and 'Make in India' on the Indian Economy**

Chidambaran G. Iyer, Badri Narayanan G (School of Environment and Forestry Sciences, University of Washington, Seattle, US), Rahul Sen (Auckland



University of Technology, Auckland), Sangeeta Khorana (Bournemouth University, Bournemouth, UK), Sadhana Srivastava (Auckland University of Technology, Auckland)  
Status: Ongoing (Expected date of completion: August 2020)

- 30. Wide Gap Narrow Gap and Public Good Allocation**  
Rajit Biswas  
Status: Ongoing (Expected date of completion: three months)

#### **Completed Research Projects**

- 31. IPR Regime and Antitrust Implications of Mergers & Acquisitions: Evidence from the Indian Corporate sector**  
P.L. Beena  
Sponsor: (SEED Grant, CDS)  
Status: Journal of Antitrust Bulletin (Forthcoming, 2020)
- 32. Structure, Direction and Export contribution of Kerala State: With special reference to Cochin Special Economic Zone**  
P.L. Beena  
Sponsor: Kerala and the World Economy, Government of Kerala.  
Status: Working Paper, CDS, Chapter in a Book

#### **Ongoing Research Projects**

- 33. Industrialization for Jobs and Growth: A Case Study of Cellular Mobile Phone Manufacturers in India**  
Chidambaran G. Iyer  
Sponsor: Indira Gandhi Institute for Development Research & Ford Foundation  
Status: Ongoing (Expected date of completion: June 2020)

#### **New Initiatives**

- 34. Revisiting the Process of Industrialisation in Kerala**  
P.L. Beena  
Status: New Initiative

- 35. Making Covid-19 Medical Products Affordable: Voluntary Patent Pool and TRIPS Flexibilities**

Sudip Chaudhuri  
Status: *SouthViews*, No. 200, 16 June 2020, Geneva: South Centre.

- 36. Making Medicines for Pandemics: Can Bangladesh do for COVID-19 what India did for HIV/AIDS?**

Sudip Chaudhuri  
Status: Accepted for publication in *The India Forum*

- 37. The Evolution of the Pharmaceutical Industry in Bangladesh, 1982 to 2020**

Sudip Chaudhuri  
Status: submitted for CDS Working Paper

- 38. To What Extent did Developing Countries use Compulsory Licensing to make Medicines Affordable: An Analysis with Special Reference to India**

Sudip Chaudhuri  
Status: expected to be completed by September 2020

#### **(f) INNOVATION AND TECHNOLOGY**

##### **Completed Studies**

- 39. Effect of Innovation on Corporate Social Responsibility: Does Ownership Matter? Evidence from Indian Manufacturing Firms**

Ritika Jain and Krishnapriya V.S. (Doctoral Scholar)  
Status: Revise and resubmit from *Economics of Innovation and New Technology*

- 40. Is R&D Spending Influenced by Disinvestment and Local Political Corruption? The Case of Indian Central Public Sector Enterprises**

Ritika Jain  
Status: Completed

- 41. History Does Matter, India's Efforts at Developing a Domestic Mobile Phone Manufacturing Industry**  
Sunil Mani

Status : Already published as a CDS Working Paper No: 489; Also accepted as a special article in the journal, *Economic and Political Weekly*



### Ongoing Studies

**42. The Saga of Indigenous R&D in India's High Technology Industry: The Case of Train 18**

Sunil Mani and Chidambaran Gurunathan Iyer  
Status: Ongoing (Expected date of completion: April 15, 2020. Will be published as an article in an online journal)

**43. Diffusion of Industrial Robots and Manufacturing Employment, an International Comparative Analysis**

Sunil Mani and Patarapong Intarakumnerd (National Graduate Institute for Policy Studies, Tokyo)  
Status: Ongoing (To bring out as Working Paper and then a journal article)

**44. The Diffusion of a Cashless Economy in India, its Trends and Challenges**

Sunil Mani  
Status: Ongoing (Plan to publish as a journal article after completion)

**45. Emerging Technology, State and National Innovation Capability: An International Comparative Analysis Based on Artificial Intelligence (AI) and Robotics and Autonomous Systems**

Sunil Mani and Yasushi Hara, École des hautes études en sciences sociales (EHESS), Center for French-Japanese Advanced Studies in Paris (CEAFJP)  
Status: Ongoing

### Completed Research Projects

**46. Performance of India's National System of Innovation, 2015-2020**

Sunil Mani  
Sponsor: UNESCO, Paris  
Status: Will appear as a chapter in UNESCO (2020), UNESCO Science Report 2020, Paris: UNESCO.

### New Initiatives

**47. IPR, Innovation and Developmental Implications: A Case Study of Selected Indian Industries**

P.L. Beena  
Status: New Initiative

**48. Analysing Digital Payment Systems in India through the lens of Innovation Systems Framework**

Chidambaran G. Iyer  
Status: New Initiative

**49. Frugal Innovations for Dealing with Pandemics, India's Innovation Capability in Digital Technologies and in Medical Devices**

Sunil Mani  
Status: New initiative (Expected date of completion: March 31, 2021)

**(g) LABOUR, EMPLOYMENT AND SOCIAL SECURITY**

### Completed Studies

**50. Unauthorised Recruitment of Migrant Domestic Workers from India: Interest Conflicts, Patriarchal Nationalism and State Policy**

Praveena Kodoth  
Status: Chapter in in Michiel Bass (ed.), *The Migration Industry in Asia: Brokerage, Gender and Precarity*, Singapore: Palgrave Macmillan

**51. Do Job Reservations Hurt Firm Performance? Job Reservations, Disinvestment and Firm Performance in Indian Public Sector Enterprises**

Ritika Jain and Vinoj Abraham  
Status: Submitted at World Development

**52. Gender-based Wage Discrimination in Indian Labour Market: An Assessment**

Udaya Shankar Mishra and Vachaspati Shukla (Sardar Patel Institute of Economic and Social Research, Ahmedabad)  
Status : The Indian Journal of Labour Economics, 2019, Vo.62, pp.361- 388.  
[https://link.springer.com/article/10.1007/s41027-019-00175-8?wt\\_mc=Internal.Event.1.SEM.ArticleAuthorOnlineFirst&utm\\_source=ArticleAuthorOnlineFirst&utm\\_medium=email&utm\\_content=AA\\_en\\_06082018&ArticleAuthorOnlineFirst\\_20190817](https://link.springer.com/article/10.1007/s41027-019-00175-8?wt_mc=Internal.Event.1.SEM.ArticleAuthorOnlineFirst&utm_source=ArticleAuthorOnlineFirst&utm_medium=email&utm_content=AA_en_06082018&ArticleAuthorOnlineFirst_20190817)





**53. An Analysis of the Unemployment Challenge and India's Policy Response**

Vinoj Abraham

Status: Accepted for an edited volume (India Development Report)

**54. Jobless Growth through the Lens of Structural Transformation**

Vinoj Abraham

Status: Published in *Indian Growth and Development Review*, Vol. 12 No. 2, pp. 182-201. 2019. <https://doi.org/10.1108/IGDR-07-2018-0077>

**55. Dynamic Nature of Jobless Growth in India**

Vinoj Abraham

Status: Published in an edited volume by Shyam Sundar, *Globalization, Labour Market Institutions, Processes and Policies in India: Essays in Honour of Lalit K. Deshpande*, Palgrave Macmillan

**Ongoing Studies**

**56. Affirmative Action and Jobs in India**

Thiagu Ranganathan and Tirtha Chatterjee

Status: (Expected date of completion: May 2020)

**New Initiatives**

**57. Gender Diversity and Firm Performance in India**

Ritika Jain

Status: New initiative

**(h) MACROECONOMIC PERFORMANCE**

**Completed Studies**

**58. Union, Efficiency of Labour and Endogenous Growth**

Chandril Bhattacharyya and Manash Ranjan Gupta (ISI, Kolkata)

Status: Submitted to a journal

**59. Role of Governance and ICT Infrastructure in Tax Revenue Mobilisation: An Empirical Assessment for India**

Hrushikesh Mallick

Status: CDS Working Paper No. 491

**60. Do Growth-Promoting Factors Also Affect Income Inequality? An Empirical Evidence from the Indian States**

Hrushikesh Mallick and Amit Kumar Nandan (Doctoral Scholar)

Status: Aiming for a journal publication

**61. Does Gender Equality Matter for Regional Growth and Income Inequality? An Empirical Analysis for the Indian States**

Amit Nandan (Doctoral Scholar) and Hrushikesh Mallick

Status: Journal of International Development

**Ongoing Studies**

**62. Understanding the Role of Climate Change, Institutional Credits and Public Sector Investment on Agricultural Productivity in India**

Hrushikesh Mallick

Status: Ongoing

**63. An Assessment of the Effectiveness of Total Foreign Aid Inflows vs. Foreign Energy Aid Inflows for Environmental Quality and Climate Mitigation: A Long Run Analysis for India**

Hrushikesh Mallick, Mantu Kumar Mahalik (Indian Institute of Technology Kharagpur), Muhammed Ashiq V (Indian Institute of Technology Kharagpur), & Monika Gupta (Jain Institute of Management and Research, Mumbai)

Status: New Initiative

**Completed Research Projects**

**64. Migration, Remittances and Dutch Disease: Evidence from Kerala Economy**

M. Parameswaran

*Sponsor:* Earlier version was done with funding support from Kerala and World Economy project.

Status: Under revision for journal publication



### **New Initiatives**

#### **65. Quality of Governance, Federal Transfers and Economic Development**

Hrushikesh Mallick  
Status: New initiative

#### **(i) MIGRATION**

### **Completed Studies**

#### **66. Handbook on Internal Migration in India**

S. Irudaya Rajan and Sumeetha M (Christ University, Bengaluru)  
Status: Sage Publishers (Published)

#### **67. Asianization of Migrant Workers in the Gulf Countries**

S. Irudaya Rajan and Ginu Zachariah Oommen (Kerala Public Service Commission)  
Status: Springer (Published)

#### **68. Development, Environment and Migration**

S. Irudaya Rajan and Debabrata Baral (Bennett University)  
Status: Routledge (Published)

### **Ongoing Studies**

#### **69. South Asia Migration Report 2020 (Book)**

S. Irudaya Rajan  
Status: Ongoing (Expected date of completion: May 2020)

#### **70. India Migration Report 2020: Kerala Model of Migration Surveys (Book)**

S. Irudaya Rajan  
Status: Ongoing (Expected date of completion: May 2020)

### **Completed Research Projects**

#### **71. Recruitment and Migration of Indian Domestic Workers to the Middle East, Work in Freedom programme (started on March 15, 2019)**

Praveena Kodoth  
Sponsor: ILO, New Delhi  
Status: Is in the process of being brought out as a working paper

#### **72. Locating Migration in Imagined Futures**

S. Irudaya Rajan  
Sponsor: REALM  
Status: Plan for Journal Articles

### **Ongoing Research Projects**

#### **73. Should We Provide incentives for Investment Use of Remittances? A Randomized Controlled Experiment for India**

S. Irudaya Rajan and Bharati Basu (Central Michigan University)  
Sponsor: UAE Exchange Centre LLC  
Status: Ongoing (Expected date of completion: December 2020)

#### **74. Flood and Migration in Kerala**

S. Irudaya Rajan  
Sponsor: REALM  
Status: Ongoing (Expected date of completion: December 2020)

#### **75. The Prospects and Impact of Migration at the Local Level through a Village Census**

Vinoj Abraham, Praveena Kodoth, Parameswaran M, Ritika Jain  
Sponsor: Kerala in the World Economy Programme/ CDS  
Status: The research was to be completed by March 2020, but has to be extended due to the COVID pandemic

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

Praveena Kodoth and Vиноj Abraham  
Sponsor: UNICEF  
Status: Ongoing

### **New Initiatives**

#### **77. Study on Evidence Generation on Child Migration in TN and Kerala**

Vinoj Abraham and Praveena Kodoth  
Sponsor: UNICEF India  
Status: New Initiative

**(j) PLANTATION CROPS*****Ongoing Research Projects***

- 78. Collective Action among Small Tea Growers (STG)**  
 Thiagu Ranganathan, Vinoj Abraham and Tirtha Chatterjee  
*Sponsor:* National Research Programme on Plantation Development (NRPPD)  
*Status:* Ongoing - Expected date of completion: June 2020
- 79. Performance of Rubber Producer Societies in Rubber**  
 Vinoj Abraham and Mithesh Madhavan (Research Associate, NRPPD)  
*Sponsor:* NRPPD  
*Status:* Ongoing (The research was to completed by March 2020, but has to be extended due to the COVID pandemic)
- 80. An Assessment of the Impact of Self Help Groups on Small Tea Growers**  
 Vinoj Abraham, Thiagu Ranganathan and Tirtha Chatterjee  
*Sponsor:* NRPPD  
*Status:* The research was to be completed by March 2020, but has to be extended due to the COVID pandemic
- 81. 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
- 82. Feasibility of e-auction in Rubber**  
 Vinoj Abraham, Ritika Jain and Thiagu Ranganathan  
*Sponsor:* NRPPD  
*Status:* The research was to completed by March 2020, but has to be extended due to the COVID pandemic

**(k) POLITICS AND DEVELOPMENT*****Completed Studies***

- 83. Between Prohibition of Political Activity Capture of Political Space: The Predicament of Student Politics in Kerala**  
 Praveena Kodoth  
*Status:* Chapter in Suresh Babu (ed. ) *Education and the public sphere: Exploring the structures of mediation in post colonial India*, London: Routledge, 2019
- 84. Labour Market Corruption and Search Friction**  
 Rajit Biswas and Debojyoti Mazumder (Indian Institute of Management, Indore)  
*Status:* Submitted to BE Journal of Macroeconomics
- 85. Bribery and Firm Performance in India: A Political Economy Perspective**  
 Ritika Jain  
*Status:* Published in *Journal of Asian Economics*
- 86. Effect of Electricity Act on Tariff Gap within the Subsidizing Sector: The Case of India**  
 Ritika Jain and Amit Nandan (Doctoral Scholar)  
*Status:* Published in *Energy Policy*
- 87. Electricity Prices and Firms' Decisions and Outcomes: The Case of India after a Decade of the Electricity Act**  
 Ritika Jain and Amit Nandan (Doctoral Scholar)  
*Status:* Submitted at *Energy Economics*

***Ongoing Studies***

- 88. Only Half Way Through? Interrogating the Status of Forest Right Act, 2006, Implementation in Kerala**  
 Abhilash, T  
*Status:* Ongoing (Expected date of completion August 2020)
- 89. Path Dependency: A Marxist Interpretation**  
 N. Vijayamohanan Pillai  
*Status:* Ongoing



**90. Revisionism: The Game of Filling in the Marxian Blanks**

N. Vijayamohanan Pillai

Status: Ongoing (Chapter in Book)

**New Initiatives**

**91. Correcting the Historical Injustice or Adverse Inclusion?: an Ethnographic Study of Tribal Forest Watchers in Kerala.**

Abhilash, T

Status: New Initiatives

**(I) OTHER STUDIES**

**Completed Studies**

**92. From Nomadism to Precarious Living: Destitution and Exclusion of Malai Pandaram in Kerala**

Abhilash T and Prashanth Bansode (Gokhale Institute of Politics and Economics)

Status: *Social Change* (<https://journals.sagepub.com/loi/scha>) Accepted in January 2020 and Publication under progress

**93. The Role of the Federal Reserve in the U.S. Housing Crisis: A VAR Analysis with Endogenous Structural Breaks**

Srikanta Kundu and Mahua Barari (Department of Economics, Missouri State University, Springfield)

Status: Published in *Journal of Risk and Financial Management* (<https://www.mdpi.com/1911-8074/12/3/125>)

**94. Nonlinear Relationships between Inflation, Output Growth and Uncertainty in India: New Evidence from a Bivariate Threshold Model**

Kusha Banik Chowdhury (Indian Statistical Institute (North-East Centre), Tezpur, Assam) and Kaustav Kanti Sarkar (Reserve Bank of India, Mumbai) and Srikanta Kundu

Status: Accepted into *Bulletin of Economic Research*

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

Srikanta Kundu and Irfan Ahmad Shah (Doctoral Scholar)

Status: Submitted to Journal

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

Srikanta Kundu and Amartya Paul (Doctoral Scholar)

Status: Submitted to Journal and CDS working Paper

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

Srikanta Kundu, Ruma Kundu (Sikkim University, Tadong, Gangtok) and Kul Bahadur Chettri (Research Scholar, Department of Economics, Sikkim University)

Status: To be submitted in a journal

**98. Central Bank Intervention in Foreign Exchange Market under Managed Float: A Three Regime Threshold VAR Analysis of Indian Rupee-US Dollar Exchange Rate**

Srikanta Kundu and Sunandan Ghosh

Status: To be submitted in a journal

**99. Risk and Return Spillover: Does Liquidity Of Stock Market Play A Role? Evidence from US, UK and India**

Srikanta Kundu and Pratim Das (MA Student)

Status: To be submitted in journal

**100. Mean and Volatility Spillovers between REIT and Stocks Returns: A STVAR-BTGARCH-M Model**

Mahamitra Das (Xavier School of Economics, Xavier University Bhubaneswar), Srikanta Kundu, and Nityananda Sarkar (Economic Research Unit of the Indian Statistical Institute)

Status: Completed

**101. Conceptualizing Energy Efficiency: A Techno-Economic Approach**

N. Vijayamohanan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

Status: Under review for publication



**102. Measuring Energy Efficiency: A Review of the Techno-Economic Empirical Methods**

N. Vijayamohanan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

Status: Under review for publication

Status: Published as MPRA Working paper No. 97744.  
[https://mpra.ub.uni-muenchen.de/97744/1/MPRA\\_paper\\_97744.pdf](https://mpra.ub.uni-muenchen.de/97744/1/MPRA_paper_97744.pdf)

**103. Measuring Energy Efficiency in Kerala: Index Decomposition Analysis**

N. Vijayamohanan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

Status: Under review for publication

**104. Measuring Energy Efficiency in Kerala: Data Envelopment Analysis**

N. Vijayamohanan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

Status: Under review for publication

**105. Measuring Energy Efficiency: An Application of Stochastic Frontier Production Function Analysis to Power Sector in Kerala**

N. Vijayamohanan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

Status: Under review for publication

**106. Energy Efficiency in Kerala**

N. Vijayamohanan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

Status: Published as MPRA Working paper No. 97498.

[https://mpra.ub.uni-muenchen.de/97498/1/MPRA\\_paper\\_97498.pdf](https://mpra.ub.uni-muenchen.de/97498/1/MPRA_paper_97498.pdf)

**107. Economic Concept of Energy Efficiency**

N. Vijayamohanan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

Status: Published as MPRA Working paper No. 97501.

[https://mpra.ub.uni-muenchen.de/97501/1/MPRA\\_paper\\_97501.pdf](https://mpra.ub.uni-muenchen.de/97501/1/MPRA_paper_97501.pdf)

**108. Energy Efficiency Indicators: Estimation Methods**

N. Vijayamohanan Pillai and A. M. Narayanan (Energy Management Centre, Trivandrum)

**Ongoing Studies**

**109. Bank Capital Structure and Monetary Policy Transmission: Evidence from India**

Srikanta Kundu and Shelja Bhatia (Doctoral Scholar)

Status: Ongoing (Expected date of completion: September 2020)

**110. Separability in India Agricultural Households**

Thiagu Ranganathan and Tirtha Chatterjee

Status: To complete by September 2020

**Completed Research Projects**

**111. An Assessment on Non- Tax Revenue in Kerala**

P.L. Beena and Ritika Jain

*Sponsor:* Administrative Reform Committee, Government of Kerala

Status: Report

**112. Institutional Support For Management Of Agro-Biodiversity in Kerala: Access Capacity Gaps Pertaining to Agro Biodiversity and Identify Opportunities to Mitigate Impacts of Current Practices of Agriculture and Allied Sectors on Agro Biodiversity Conservation, Management and Use**

Abhilash, T, Sunil Mani, Mohan Kumar (Research Assistant) and Santhakumar V (Azim Premji University)

*Sponsor:* UNFAO

Status: Under Publication

**113. Sector Wise Electrical Energy Intensity in Kerala Factoring in Energy Efficiency and Productivity**

*Sponsor:* Energy Management Centre, Trivandrum.

N. Vijayamohanan Pillai

Status: Completed

**New Initiatives****114. Networks and Externalities with Fixed Cost of Production**

Rajit Biswas

Status: New Initiative

**115. Socio-Economic Influence on Child Immunisation in East Sikkim**

Srikanta Kundu and Ruma Kundu (Sikkim University, Tadong, Gangtok)

Status: New initiative (Expected date of completion: September 2020)

**116. Performance of  $r - (k, d)$  class estimator in terms of mean square error matrix and Mahalanobis loss function under autocorrelated error**

Srikanta Kundu and Nityananda Sarkar (Economic Research Unit of the Indian Statistical Institute)

Status: New Initiative



**CENTRE FOR DEVELOPMENT STUDIES**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH, 2020**

EXPENDITURE	Sch.	31 March 2020 (Rs.)	31 March 2019 (Rs.)	INCOME	Sch.	31 March 2020	31 March 2020	31 March 2019
FACULTY & STAFF COST	1	7,63,07,725	6,18,36,152	GRANT IN AID				
FELLOWSHIP	2	34,85,176	46,40,003	A. FROM ICSSR SALARY NON-PLAN		2,75,32,000		
ACADEMIC DEVELOPMENT	3	95,32,210	1,00,34,459	B. FROM GOVT. OF KERALA PLAN NON-PLAN		50,00,000	3,25,32,000	3,05,48,000
REPAIRS & MAINTENANCE	4	82,44,150	83,98,221			2,53,00,000		
ADMINISTRATIVE EXPENSES	5	27,21,488	27,75,377			3,08,42,600	5,61,42,600	6,44,65,000
SPONSORED RESEARCH/ FELLOWSHIP/ PROJECTS EXPENSE	6	1,21,00,760	1,31,93,458	TOTAL GRANT (A+B) LESS: UTILISED FOR CAPITAL EXPENDITURE			8,86,74,600	9,50,13,000
SURPLUS FROM & RECOVERY OF OVERHEADS TRANSFERRED TO ENDOWMENT FUND	7	1,28,47,011	88,15,589				56,77,919	1,19,09,876
ICSSR ORIENTATION PROGRAM FOR SC/ST		-	5,00,000	ICSSR ORIENTATION PROGRAM: SC/ST			8,29,96,681	8,31,03,124
NET INCOME FROM EARMARKED FUNDS TRANSFERRED TO RESPECTIVE FUNDS	B	4,41,78,753	4,05,71,283	FEES RECEIVED	8		9,17,095	5,00,000
DEPRECIATION	G	1,35,51,598	1,41,42,826	OTHER INCOME LESS : TRANSFERRED TO ENDOWMENT FUND	9	28,91,210 26,28,794		9,23,190
				SPONSORED RESEARCH/ FELLOWSHIP/ PROJECT/ INCOME TRANSFERRED	6		2,62,416	4,49,663
				SURPLUS FROM & RECOVERY OF OVERHEADS TRANSFERRED FROM PROJECT FUNDS	7		1,21,00,760	1,31,93,458
				INTEREST ON INVESTMENT OF EARMARKED FUNDS LESS : EXPENDITURE	B	5,76,58,102 1,34,79,349	1,28,47,011	88,15,589
				TRANSFER FROM GENERAL FUND (DEPRECIATION)	G		4,41,78,753	4,05,71,283
				TRANSFER FROM ENDOWMENT FUND (DEFICIT)			1,35,51,598	1,41,42,826
							1,61,14,557	32,08,235
<b>TOTAL</b>		<b>18,29,68,871</b>	<b>16,49,07,368</b>	<b>TOTAL</b>			<b>18,29,68,871</b>	<b>16,49,07,368</b>

Notes to Accounts as per Schedule L

For Centre for Development Studies

**Director**

04.07.2020  
Thiruvananthapuram

**For Krishnan Retna & Associates**  
Chartered Accountants (FRN.001536S)

**A. Retnakumaran Nair**  
Partner (M.No. 024791)

**CENTRE FOR DEVELOPMENT STUDIES**  
**BALANCE SHEET AS AT 31st MARCH, 2020**

LIABILITIES		As at 31.3.20 (Rs.)	As at 31.3.19 (Rs.)	ASSETS		As at 31.3.20 (Rs.)	As at 31.3.19 (Rs.)
GENERAL FUND	A	9,84,04,099	10,59,56,825	FIXED ASSETS	G	9,75,56,949	10,51,09,675
EARMARKED FUNDS	B	84,44,81,663	80,01,18,563	INVESTMENTS	B	83,66,86,256	79,53,75,408
DEPOSITS	C	13,54,895	13,11,495	EARMARKED FUNDS			
CURRENT LIABILITIES	D	49,98,548	7,91,089	LOANS & ADVANCES	H	58,09,497	61,87,320
				W/F LOAN/OTHER ADVANCE	I	9,39,194	9,46,799
				PREPAID EXPENSES		19,89,910	
				TDS			
UNSPENT GRANT	E	11,63,777	23,26,399	CURRENT ASSETS	J	48,501	70,689
SPONSORED PROJECTS & FELLOWSHIPS				CLOSING STOCK	K	87,44,605	1,24,64,470
UNSPENT GRANT	F	39,25,910	96,49,990	CASH & BANK BALANCES			
				SPONSORED PROJECTS & FELLOWSHIPS			
				GRANT RECEIVABLE	F	25,53,980	-
<b>TOTAL</b>		<b>95,43,28,892</b>	<b>92,01,54,361</b>	<b>TOTAL</b>		<b>95,43,28,892</b>	<b>92,01,54,361</b>

Notes to Accounts as per Schedule L

For Centre for Development Studies

**Director**

04.07.2020  
Thiruvananthapuram

**For Krishnan Retna & Associates**  
Chartered Accountants (FRN.001536S)

**A. Retnakumaran Nair**  
Partner (M.No. 024791)

## HONORARY FELLOWS

(As on 31.3.2020)

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

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\* Passed away on 7 November, 2019



## **CENTRE FOR DEVELOPMENT STUDIES**

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

Prasanth Nagar Road, Ulloor, Thiruvananthapuram - 695 011, Kerala, India

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