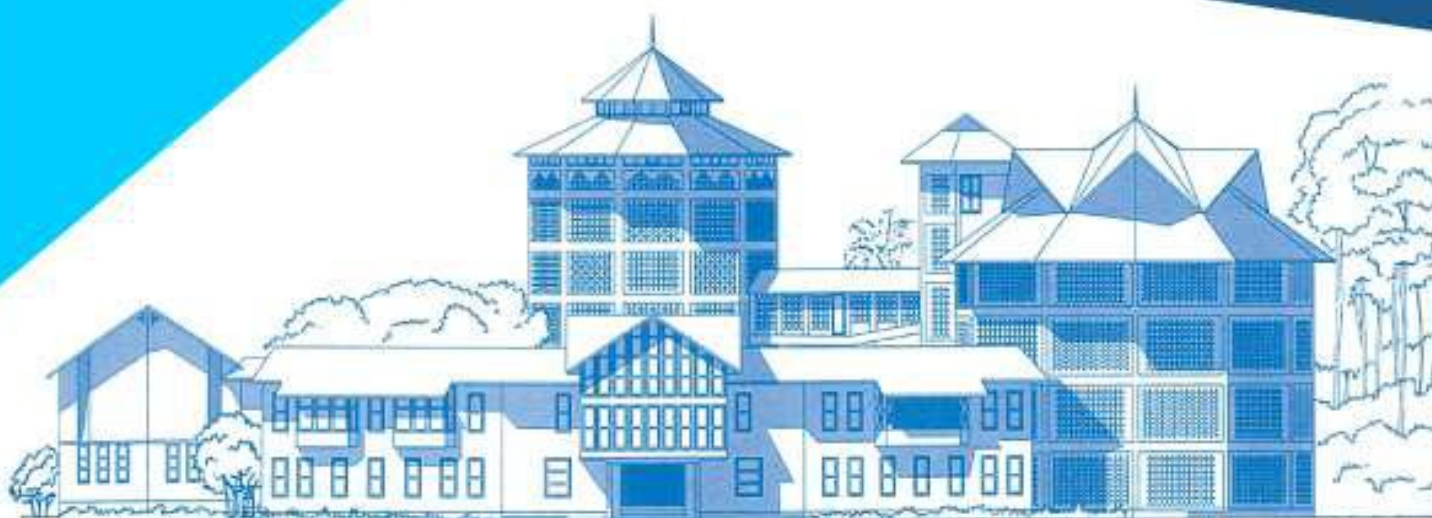


**ANNUAL  
REPORT  
2018-19**



**CENTRE FOR  
DEVELOPMENT  
STUDIES**

**THIRUVANANTHAPURAM, KERALA**

# **CENTRE FOR DEVELOPMENT STUDIES**

## **Annual Report**

**2018-19**

### **Centre for Development Studies**

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

Prasanth Nagar, Ulloor, Thiruvananthapuram- 695011

Kerala, India

Tel: 91-471- 2774200, 2448881, 2442481, Fax: 91-471-2447137

Website: [www.cds.edu](http://www.cds.edu)

**GOVERNING BODY**  
**(As on 31 March, 2019)**

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Prof. J. V. Meenakshi Department of Economics Delhi School of Economics, University of Delhi, New Delhi.	”
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Prof. K.P Kannan Honorary Fellow, CDS Trivandrum	”
Prof.P. Sivanandan Honorary Fellow, CDS Trivandrum 695 011	”

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# I

## 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 forty-nine 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 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 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 five students were selected for the programme, and they have secured internships at prominent universities like Ghent University, Belgium; University of Sussex, U.K.; Institute of Social Studies, Erasmus University, Rotterdam; School of Global Studies, University of Sussex, U.K. and University of Utrecht, Netherlands.

The admission tests for MA and Integrated MPhil/PhD programmes are now conducted at six centres across the country. In 2018, the cities in which the centre organised the entrance examination were New Delhi, Pune, Hyderabad, Kolkata, Kozhikode and Trivandrum.

In the year 2018-19 five PhD Degrees were awarded, and six PhD theses were under evaluation. In the same year, all 11 MPhil students submitted their thesis, and nine were awarded two 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, ten students from 2016-18 MPhil batch were offered admission under the Integrated MPhil/PhD programme.

The MA programme is now into the seventh batch. For the academic session 2018-19, 803 candidates applied for admission, of which 701 appeared for the entrance test, and 20 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 3 applications were received, two 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 policymaking. 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 131 publications in the year 2018-19.

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 case study on the handloom industry in the aftermath of the floods in Kerala titled ' Business Distress in Kerala: A Case study of Chendamangalam Handloom Industry' was carried out with the help of funds from the World Economy Project funded by the Government of Kerala. Another study completed was on 'IPR Regime and Development Implications: Case Study of Patent Intensive Industries' sponsored by ICAE, University of Kerala. These studies were carried out under the theme, *Industry and Trade*. Several project like the 'Kerala Migration Survey, 2018,' sponsored by Norka,

Government of Kerala and REALMigration, ‘Demography, Migration and its Impact on Kerala Economy, sponsored by the ILO, New Delhi; and ‘Kerala Migration Survey 2018 Panel Surveys,’ sponsored by REALM were successfully completed under the research under *Migration* during the year.

Ongoing research projects include a study sponsored by the Kerala and the World Economy Endowment on ‘Munnar through three turns: Crisis, Strike and the flood,’ under the research theme *Culture and Development*, was initiated in August soon after the floods that hit Kerala, along with a study on *Gender and Development* titled ‘Righting Gender Wrongs: A study of Law Enforcement Response to Online Violence against Women,’ in collaboration with IT for Change in Bangalore. A sponsorship from the IDG enabled the initiation of a project titled ‘Relative Contributions of Adult Daughter and sons to Elderly Parents’ care in India.’ A project to put forward ‘Resource Allocation in lieu of State’s Demographic Achievements in India: An Evidence-based Approach,’ sponsored by the Finance Commission, Government of India is underway. Both projects are studies initiated under the research theme *Human Development, Health and Education*.

Under *Industry and Trade*, a study on ‘Structure, Direction and Export Contribution of Cochin SEZ in Kerala,’ undertaken with funding from the Kerala World Economy Project, Government of Kerala is ongoing. A study under the research theme *Innovation and Technology* looks into ‘The State and the Maintenance of Agro Biodiversity in Kerala,’ sponsored by FAO, India. Studies under *Migration* include a project related to the impact of the flood on migration ‘Flood and Migration in Kerala’ sponsored by REALM measures the loss of livelihood assets due to the flood. A study sponsored by the UAE Exchange Centre LLC, ‘Should we provide Incentives for Investment use of Remittances? A Randomised Controlled Experiment for India,’ tries to find out if it is possible to boost remittances by providing some incentives. And finally, a study on ‘Sector-wise Electrical Energy Intensity in Kerala Factoring in Energy Efficiency and Productivity’ sponsored by the Energy Management Centre, Trivandrum examines aggregate energy intensity trends.

## **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. Five annual public lectures were also organised.

Professor Sukhadeo Thorat (Professor Emeritus, JNU) delivered the Seventh P.K. Memorial Lecture on 'Inter-Group Inequality in India: Insight from the Economic Theories of Discrimination' at the Centre on 28 February, 2018.

Professor Frances Stewart (Professor Emeritus of Development Economics, University of Oxford, UK) delivered the Ninth BG Kumar Memorial Lecture on 'Revisiting Myrdal's Approach to Development in Asian Drama,' on 5 October, 2018.

Professor Ravi Kanbur (Distinguished academician & T. H. Lee Professor of World Affairs, International Professor of Applied Economics and Management, and Professor of Economics at Cornell University) delivered the Seventh Foundation Day Lecture on 24 October, 2018.

Professor Rajmohan Gandhi (Professor, University of Illinois at Urbana Champaign, USA) delivered the Eighth PK Gopalakrishnan Memorial Lecture on 'The Challenges of Intolerance, the Future of Indian Democracy and South India's Role: Some Reflections' on 19 December, 2018.

Professor Sudipto Mundle (Formerly Emeritus Professor at the National Institute of Public Finance and Policy) delivered the KN Raj Memorial Lecture to commemorate the anniversary of Prof KN on 11 February 2019.

CDS has continued with its tradition of conducting short term training programmes. A week-long course on 'State and Civil Society in Development,' for students of the Department of International Environment and Development Studies (Noragric) of the Norwegian University of Life Sciences (NO-NMBU) was organised September.

The Centre organised a capacity building programme for doctoral candidates belonging to Scheduled Caste and Scheduled Tribe, minorities and other marginalized Groups was conducted in March 2019.

The Centre has been conducting the training programmes on methods and approaches in research on migration issues, and this year its thirteenth programme was held during September.

The second Design and Evaluation of Innovation Policy (DEIP) programme was conducted at the Centre. The programme was organised in collaboration with the United Nations University- MERIT, Maastricht in the Netherlands.

CDS faculty and students have been invited to speak at conferences/ seminars/ workshops/ roundtables etc. both in India (111) and abroad (36 ). Many of CDS faculty colleagues have served as members of committees, task forces and advisory bodies at the national and international levels.

CDS 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 month-long 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. 19 candidates were selected for the training programme and four were awarded Fellowships.

The Centre also provided research affiliations to researchers from the United States, UK, Canada and South Africa and New Zealand for a period of study at the Centre.

The new category of scholars known as “Visiting Professors/ Fellows” initiated last year 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 a number of training programmes on database of the Indian Economy, migration research and innovation studies in addition to strengthening the certificate courses and throwing them open to external candidates is underway.

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**

During the reporting year, a large number of improvement and additions to facilities on campus were carried out. In continuation of the leak proofing work started in the previous year, this year work continued on the repair of H30 along with demolishing of the old water tank and leak repairing of H22 and H27.

Repainting works on H6 quarters and the old guest house ground floor was completed along with painting of the kitchen area in the canteen. H6 was furnished with new furniture, making it usable for accommodating visiting faculty.

Renovation of the old badminton court, toilets in the Raj Block, and construction of new steps leading up to the MH Hostel was also carried out during the year. A part of the compound wall that was requiring maintenance was repaired and rebuilt. Interlocking cobbles replaced old paving with brickbats in the pathway leading up to the clubhouse, men's hostel and a corridor behind the reception area. The open floor area of the Kaldor amphitheatre was laid with anti-slip granite stones, channelling the rainwater to enable rainwater harvesting.

As part of the efforts to maintain a clean and environment-friendly campus, waste collection bins for non bio degradable waste having been placed in strategic places. Incinerators for burning sanitary napkins have been installed near to the hostels for hassle-free disposing. To monitor and to ensure good health hostels have been provided with a Blood Pressure apparatus.

### **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.644.65 lakh and the Indian Council of Social Science Research Rs. 305.48 lakh. The Centre earned a total income of Rs.68.29 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.363.05 lakh and Rs.191.33 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 the 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 CDS community had contributed an amount of Rs.12,37,792/- towards the Chief Minister's Relief Fund for the victims of the disaster caused by the mega Flood 2018 in the State.

The Centre gratefully acknowledges the 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.

## RESEARCH

This chapter provides a brief description of the studies that were done and are in progress during the year 2018-19. 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 123 studies are presented in this chapter.

### (a) CULTURE AND DEVELOPMENT

#### *Completed Studies*

##### **1. Categorical Oppression in South Indian Tea Belt**

Jayaseelan Raj

This article examines the nature and performance categories of the identity of the Tamil speaking Dalit tea workers in the South Indian state of Kerala in the context of two important events occurred in the tea belt - an economic crisis and a conflict between two states over managing a dam. It's argued here that the employment of the categories of their identity by dominant caste and class groups has serious implications for how the workers lived and experienced their life situation. Inspired by Clyde Mitchel's 'categorical relationship' and Philippe Bourgois' 'conjugated oppression', I argue that this process of stigmatising, evoking, and employing the workers' forms of identity to their disadvantage should be seen as a phenomenon of what I call as 'categorical oppression'.

Status: Completed.

## RESEARCH PROJECTS

#### *Ongoing Projects*

##### **2. Munnar Through Three Turns: Crisis, Strike and the Flood**

Jayaseelan Raj

*Sponsor:* Kerala and the World Economy Endowment, CDS.

This project proposes to examine the tea plantation labour in the Munnar tea belt in the background of three important turns or events occurred in the region in the last two decades. The last couple of decade witnessed significant transformations in the Indian tea industry in general and the Munnar tea belt in particular. Three major events occurred in the last couple of decades should be understood if one needs to understand the contemporary situation of the tea plantation labour as a whole in the tea belt and beyond, namely, a) economic crisis of 2000, b) the strike of 2015 and c) the flood of 2018. In other words, the proposed project will look into the implications of the three events for the tea plantation economy and its workforce in the Munnar tea belt.

Status: Ongoing.

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

### ***Completed Studies***

#### **3. Planning a 'slum-free' city: Housing upgrade and the Reshaping of Urban Governance in Trivandrum, Kerala**

J. Devika, Glyn O Williams (University of Sheffield), Umesh O (Consultant, Kudumbashree), N Jagajeevan (Consultant, Haritha Kerala Mission)

This paper examines how India's national urban development agenda is reshaping relationships between national, State and city-level governments. Jawaharlal Nehru National Urban Renewal Mission, the flagship programme that heralded a new era of urban investment in India, contained a range of key governance aspirations: linking the analysis of urban poverty to city-level planning, developing holistic housing solutions for the urban poor, and above all empowering Urban Local Bodies to re-balance relationships between State and city-level governments in favour of the latter. Here, we trace Jawaharlal Nehru National Urban Renewal Mission's implementation in Kerala's capital city, Trivandrum (Thiruvananthapuram), where the city's decentralised urban governance structure and use of 'pro-poor' institutions to implement housing upgrade programmes could have made it an exemplar of success. In practice, Trivandrum's 'city visioning' exercises and the housing projects it has undertaken have fallen short of Jawaharlal Nehru National Urban Renewal Mission's lofty goals. The contradictions between empowering cities and retaining centralised control embedded within this national programme, and the unintended city-level consequences of striving for Jawaharlal Nehru National Urban Renewal Mission funding success, have reshaped urban governance in ways not envisaged within policy. As a result, Jawaharlal Nehru National Urban Renewal Mission has been important in rescaling governance relationships through three interlinked dynamics of problem framing, technologies of governance and the scalar strategy of driving reform 'from above' that together have ensured the national state's continued influence over the practices of urban governance in India.

Status: Published in Environment and Planning C, June 2018,  
<https://doi.org/10.1177%2F2399654418784305>

#### **4. Enacting Participatory, Gender-Sensitive Slum Redevelopment? Urban Governance, Power and Participation in Trivandrum, Kerala**

J. Devika, Williams, G (University of Sheffield), Omanakuttan U (Consultant, Kudumbashree), Aasen, B (NIBR)

This paper looks at two city-level governance challenges that sit behind global commitments to deliver 'cities without slums': under what conditions can participatory ideals be successfully transferred to housing redevelopment programmes, and under what conditions can participatory slum redevelopment trigger wider shifts towards inclusive urban governance? It does so by examining Indian national slum redevelopment policy and its implementation in Kerala's capital city, Trivandrum. Kerala's track-record of



participatory governance and the lead role given to its women-focused poverty alleviation mission, Kudumbashree, in implementing housing projects make it an ideal test case to examine these questions, and their gender implications. Primary data focusing on two housing projects are used to contrast intended governance changes featuring female-centred community participation with their actual operation on the ground. Despite moves to foreground women's engagement, both projects suffered from shortfalls in institutional design, the inevitable administrative complexity of housing delivery, and resistance from local power brokers. Given Kerala's favourable starting conditions, these outcomes highlight the need for slum redevelopment to be based around a deeper analysis of power dynamics and the explicit articulation of an agenda for inclusion at a city-level if participation is to realise its transformative potential.

Status: *Geoforum* 96 105-159: <https://authors.elsevier.com/a/1XZer3pILM3Oi>

## **5. The Local as Industrial Heterotopia: Making Sense of the Denial of Environmental Destruction at Eloor**

J. Devika and N C Narayanan (IIT, Bombay)

Primarily, this essay reflects on two key questions about the significance of the 'local' in environmental conflict and struggle, which emerged from fieldwork at Eloor – evident in the preceding account of the past and present of Eloor. It takes up, first, the puzzle of a certain indifference, if not forgetfulness, that many people interviewed in Eloor, especially those in charge of local governance, seem to display about the vital issue of longstanding pollution and destruction of the environment there by big industry. The essay takes on board the common explanations of ignorance and the corrupt complicity of local-level leaders with the industry, and finds these necessary but not sufficient. What, then, makes it so difficult for many local people and their leaders to fully acknowledge the reality of environmental destruction even as its effects continue to devastate the community in ways too close for comfort? Secondly, despite seeing the rise of a powerful anti-pollution movement that quickly grew to reach global fora during the 1990s and after, we observed very scanty support for it on the ground at Eloor. Activists reported considerable resistance from the community, and a deep sense of not just being victimized, but even ostracized. How can we account for this, and what does it mean for environmental struggles in general? Finally, how do we understand the inability of the local government at Eloor to intervene effectively to rein in the polluters?

This essay is based on qualitative fieldwork at Eloor during 2017-18. We explored the 'local' in a broader sense, to include the local in people's movements and politics, to obtain a better sense of the Municipality as local governance institution. This meant that besides open-ended semi-structured interviews of roughly an hour's duration each on an average, conducted in Malayalam, and further interactions with the elected members and other functionaries of the Eloor Municipality (such as the Secretary), we also interviewed many local activists, former Ward Members, trade union members and leaders, and residents of the most polluted area in Eloor, the banks of the Kuzhikandam creek. The interviewees in each group were selected through the snowballing method, and this was necessary because of the highly contested, even violent, nature of the conflict over the

environment. We wound up interviews in each group when arguments began to reach saturation. Through the interviews, we attempted not only to understand the present of Eloor but also to get a sense of how the situation here had evolved through the mid-twentieth century and after. In all, we conducted 21 interviews with elected members and environmental activists and very many long conversations with a diverse set of residents of Eloor. Besides the interviews, we utilized the rich secondary research sources available on the pollution issue at Eloor, and newspaper reports, books, reports by activist groups, the reports of Kerala State Pollution Control Board and others, legal proceedings, and key Municipality documents including the Panchayat Development Report of Eloor (1996) were consulted and/or analyzed.

This essay has four sections and a conclusion. In the following section, we examine somewhat closer the nature of the denial of environmental pollution and its destructive effects by local governance leaders of Eloor by outlining their strategies and reflecting on the implications of these. In the next, we argue that while insights about denial do offer much insight into its non-local aspects, it is necessary to consider local history of spatial transformation -- of Eloor-as-Udyogamandal, which was indeed a heterotopia of national industry in the immediate post-independence decades. While there has been a severe decline of both Nehruvian industrial nationalism and Eloor as an industrial hotspot since the early 1990s, our fieldwork seems to reveal that the persistence of industrial modernity as a kind of cultural bedrock among the people of Eloor and their leaders can scarcely be overlooked. The third section takes up the question of the weak local roots of the people's movement against pollution at Eloor, about why it failed to attract and mobilize local people sufficiently even as it reached global forums. Here we attempt a preliminary comparison with other anti-river-pollution struggles in Kerala, especially the Chaliyar protection struggle against the Gwalior Rayons factory at Mavoor. The fourth section reflects on the failure of the local government at Eloor to lead local people in the struggle for a safe environment. The conclusion draws together the insights of the preceding sections and returns to questions about the significance of the local in struggles around the environment under globalization. We conclude with reflections on local ecological sustainability, and the challenge of making visible the 'ecological local' at Eloor, without which ecologically-sensitive local governance may be impossible.

Status: Completed.

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

Ritika Jain and Amit Nandan (Doctoral Scholar, CDS)

The Indian power sector had a vertically integrated system of operation until late twentieth century which failed to render fruitful results due to two reasons- (i) prevalence of high price discrimination and (ii) inadequate and weak revenue collection measures and provision. In India, for the four specific consumer groups- agriculture, domestic, industry and commercial, it is observed that prices faced by agriculture and domestic groups are much lower than the average cost of supply. Further, with agricultural group demanding approximately thirty percent of the electricity supplied this exacerbates the financial burden

on state utilities ( various issues of Power Finance Commission Reports). Most of this shortfall in revenue is compensated with government assistance in the form of subsidy and discriminatory pricing strategies for the industrial and commercial categories. With sweeping power sector reforms around the globe being adopted in the last few decades to infuse competitiveness (Joskow, 1997), India was also prompt in initiating reforms in its power sector. In fact, as part of the broader economic reform measures in 1991, the government of India opened doors to private investors (including foreigners) to participate in the generation of electricity. Since then, as Bhattacharyya (2005), puts it “India has been flirting with the idea of reforms”.

While some states had started reforming their power sectors by early 2000s, the Electricity Act of 2003 was one of the landmark initiatives taken by the central government of India. The main aim of this act was to infuse competition in the sector, accountability, transparency and commercial viability in the state government-owned power sector utilities, rationalisation of electricity tariff and to increase the accessibility and affordability of electricity. To introduce competition, unbundling of the vertically integrated state electricity board (SEB) into generation, distribution and transmission, de-licensing of generation and open access of transmission and distribution segments for producers and consumers was introduced. To promote transparency, accountability and commercial viability in this sector, the establishment of an independent regulator in the form of State Electricity Regulatory Commission (SERC) at the state level was envisaged. The SERCs are idealised to be independent of the state governments interferences. Alongside these, the Electricity Act proposed many other reform actions. Despite numerous policies and sweeping reforms, the Indian power sector performance and operation has a rather grim and distressing situation. Driven by cross-subsidies glut, inefficient pricing policies, political meddling, widespread corruption and pervasive theft, transmission and distribution losses stand at 19% as of 2014 (World Bank data). One of the most important provisions of the Electricity Act of 2003 was to reduce cross-subsidies in the manner specified by the appropriate commission such that tariff rates reflect the cost of supply.

Against this background, the current study aims to examine the effect of the Electricity Act, 2003 on pricing within the “subsidizing” sector- industrial and commercial consumer groups. The rationale for using only industrial and commercial groups is to contrast the price levels between comparable slabs in the two groups and test if the Electricity Act led to price convergence. The basic idea is that there are consumer groups within commercial and industrial sectors who have the same sanctioned load and monthly consumption but are paying very different tariff rates (Table 1). With Electricity Act emphasizing on tariff rates reflecting the cost of supply, two groups having the same sanctioned load and monthly consumption demand should not pay differential prices. The study modifies Worcester (1948) argument to establish efficiency losses due to differential pricing between the two groups and suggests that with both industrial and commercial consumers having the ability to pay for the service under uniform pricing rule, price discrimination leads to welfare distortions. To substantiate, the study also uses excerpts from tariff orders where across several states, various stakeholders have raised objection to commercial category consumers being charged a higher tariff as compared to the industrial counterpart. The study renders this tariff structure distortion to the fuzziness associated with the composition of the

commercial category which is far from being resolved. These posit an empirical investigation on pricing within the industrial and commercial groups in India and how the Electricity Act has affected it. The main issue addressed is if the Electricity Act, 2003 has led to a decline in tariffs for the “subsidising” groups and a convergence of tariffs within the “subsidising” groups.

The study compiles data on electricity tariffs for seventeen non special category states in India between 2004 and 2014. The study uses a set of six measures to capture the various dimensions of the Electricity Act. Given the -non-uniform implementation of the Act across different states and over time, the study uses a set of six dummy variables to capture adoption and a set of six relevant measures to capture effective implementation in each state in a given year. The study also uses data relevant to the power sector, state-specific economic and political variables as control variables. The study employs panel data estimation technique, which accounts for the presence of cross-sectional dependence, group heteroskedasticity and autocorrelation. Pricing decisions, the dependent variables in our econometric model are captured by real tariff levels in the industrial and commercial groups and the absolute tariff gap between the two groups.

The regression results suggest that mere adoption may not be functional in getting the desired result. However, effective implementation of the reform provides some evidence for the hypotheses. Overall, efficiency injected into the power sector by distribution companies allotted to smaller areas of coverage within a state, and better experienced SERC are the two policies that have contributed to narrowing tariff gap between the two sectors. It also sheds light on the inadequacy and scantiness of privatization as a policy implementation failure as the Act of 2003 has propounded the idea of “distribution franchises (Pargal et al. 2014). This analysis pushes for careful scrutiny of the implementation of policies rather than just adoption and its effects on various outcomes.

Status: Revised and resubmitted to *Energy Policy*.

### ***Ongoing Studies***

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

Amit Nandan (Doctoral Scholar, CDS) and Hrushikesh Mallick

In the process of the central government authority advocating for the adoption of market-oriented reforms for the states’ public sector loss-making undertakings in general and power sector utilities in particular for controlling the overall size of the public sector in the economy to an optimum size, the state governments have gone for unbundling of their vertically integrated electricity boards, established independent regulators to regulate the power sector, and allowed active participation of the private sector. In this context, the study attempts to evaluate the effects of these reforms during the regulatory regime in terms of their efficiency gains in electricity distribution. Using the Cobb Douglas stochastic cost functional specification, it finds that the establishment of the independent regulator, i.e. SERCs to regulate the power sector has made a significant difference to the

reduction in the cost and thereby helping to achieve cost efficiency in electricity distribution across the states of India.

Status: Ongoing.

### **(c) GENDER AND DEVELOPMENT**

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

#### **8. Kudumbashree and its Rivals: Reflections on Women's Citizenship, Social Connections and SHGs in Kerala**

J. Devika and Jyothi S. Nair (KNM Govt. College)

In this paper we offer some tentative reflections on the nature of social connections that self-help groups (SHGs) attached to different organisational bases rest upon, sustain, or build, and their implications for women as citizens – essentially, the kind of public life it allows them to access to – in Kerala. These include the Kudumbashree – the government-sponsored network, and two other networks built by a caste-community organisation and a religious community organisation respectively. It is based on two sets of data, quantitative and qualitative, which complement each other to offer interesting insights on this theme. We use the idea of social capital as a lens to explore it partly as an opportunity to correct existing research on local governance and the Kudumbashree in Kerala that assumes that all dense social networks are unambiguously beneficial to women. We conclude that three networks display mostly an inward, individual, increasingly habit/responsibility-driven personal orientation, and at-best domestic-centred public activism; the social connections generated by these networks are shaped largely by the larger social institutions that they are embedded in. The Kudumbashree network, despite the fact that it is not embedded in a dense social institution compared with the others, does not seem to have the compensatory mechanism of stronger external control and strict hierarchies, rather the contrary. It is also more open to extension compared with other networks, and focused on individual interests – and definitely not driven by political ideologies. It also appears that gendered social expectations interfere in the chances of upward mobility that Kudumbashree leaders may gain through their networks.

Status: Published as No. 3 - *Lateral Studies on the Kudumbashree*, RULSG.

#### **9. Locality Specific Norms and Wage Bargaining by Part-time Domestic Workers in the National Capital Region**

Praveena Kodoth and Shraddha Jain (Doctoral Scholar)

Locality specific norms for wage for part-time domestic work, observed in the National Capital Region (NCR), may have moved into a regulatory vacuum caused by persistent state apathy. Depressed wages and wide variations are symptomatic of the position of domestic work within the unorganised sector as an occupation that is feminised in the dual sense of the overwhelming presence of women workers and the precarious terms of work. It has been observed that wages for domestic work do not respond uniformly to standard criteria based on 'time' or 'task' and may be affected, sometimes significantly,

by non-market factors, such as relations of effect and notions of loyalty and trust. Scholars have underlined the limited reach of collectivisation owing to a host of constraints that seriously hamper the ability of domestic workers to claim better terms and conditions. In this context, it is notable that locality specific norms which though varied have been shaped through the efforts of workers. However, they have not been subject to inquiry so far. In this paper, we argue that locality specific norms are not definitive, but they serve to organise negotiations and bargaining in the NCR and because they coalesce through a process of circulation of information among workers they enable space for expression of workers' interests. But we also draw attention to initiatives by Residents Welfare Associations (RWA) in apartment complexes and building societies to formalise rates and to introduce surveillance measures that threaten to stifle space for bargaining by workers. Domestic work includes an expanding range of activities, but locality specific norms pertain largely to the major activities that part-time workers normally engaged in, i.e., cooking, washing utensils, cleaning (sweeping, mopping, dusting) and washing clothes. Usually, rates were expressed in terms of tasks and barring exceptions, time was at best implicit in norms. But because rates could vary between task and for the same task between adjacent localities, a multiplicity of rates could come together to determine specific workers aggregate daily or monthly wage. An expanding market for paid domestic work in the National Capital Region has attracted women workers from across the country over the past several decades. A major draw is that unlike casual labour, paid domestic work provides a source of regular wages. The demand for and supply of domestic workers is considerably differentiated as domestic workers of increasingly varied regional origins, and social and demographic profile cater to employers differentiated by type of residential locality, household composition and social class. Because domestic work involves working in people's homes, there are strong demand-side rigidities, and information gaps assume great significance. Social networks and recruiting agencies have emerged as the major ways of bridging information gaps. In the case of part-time workers, networks not only mediate access to jobs but could also determine the ability of workers to move from one locality to another. In a context of an expanding market, significant information gaps and demand-side rigidities, analysis of locality specific norms could further our understanding of wage dynamics with respect especially to two critical dimensions of paid domestic work, a) a shift towards contractual arrangements in the representation of work relations and b) the expression of power relations in wage bargaining by workers and employers. Drawing on a sample survey of domestic workers in the National Capital Region and interviews with workers and employers, the paper attempts a qualitative inquiry into wage bargaining. Quantitative data is used to support and guide the analysis. The paper is organized in seven sections. A brief description of the fieldwork and data the material in section two is followed in section three by a description of our sample of part-time domestic workers in relation to those in existing studies undertaken in Delhi and discussion of aspects of the evolution of part-time jobs. In section four, we analyze the wages for part-time domestic work for the sample in terms of the number of jobs, the nature of tasks and time. A sample catalogue of rates is presented separately for cooking and cleaning activities in section five to illustrate the varying idioms in which norms are expressed and to illustrate locality specificities in wages. Drawing on this discussion, in section six we explore how workers use rates to negotiate and bargain even as we

underline the limits of such bargaining in the context of market uncertainties and power asymmetries between employers and workers. The conclusion underlines the urgent need for regulation by the state in the context of initiatives by collectives of employers to formalize rates and reassert their authority.

Status: Chapter in N Neetha (ed.) *Working in other's Homes: The Specifics and Challenges of Paid Domestic Work*, New Delhi: Tulika.

## **10. The Lure of Informality: Regulation and the Market for Domestic Work in the Middle East for Women from Kerala**

Praveena Kodoth

An informal or 'open' market for paid domestic work where employers and workers may negotiate diverse, and multiple work arrangements is entrenched in the Middle East though it is outside the framework of formal regulation defined by the *Kafala* system of sponsorship, which regulates all immigrant workers binding them to their sponsor-employers in a relationship of legal and economic dependence. Domestic workers go on a separate category of visas and are expected to work in the employer's household but may go on 'private' visas obtained through manipulation of the sponsorship system or maybe undocumented hence more explicitly illegal. Workers turn to informal work because of widespread infringement of rights by sponsor-employers, the severe lack of bargaining power in legal work arrangements but also because they expect higher remuneration. But survival and success on the informal market are subject to the access that workers have to information about regulations, the richness and diversity of their personal contacts and informal networks, which minimise the risk of detection and deportation. I probe the complicity of the regulatory framework in the Middle East in shaping the exploitation of workers in legal employment relationships and in rendering informality attractive to emigrant domestic workers. I also ask, given the specificities of the regulatory system in the Middle East whether Indian regulation is appropriate to secure the protection of emigrant women domestic workers.

Status: Chapter in N Neetha (ed.) *Working in other's Homes: The Specifics and Challenges of Paid Domestic Work*, New Delhi: Tulika.

## **11. Converging Gender Gap in Human Development? Valuing Progress in International Comparisons and Rankings**

Udaya Shankar Mishra, William Joe (IEC Delhi) and Mala Ramanathan (SCTIMS)

The Gender Development Index (GDI), calculated as the ratio of male and female Human Development Index values, provide an overview of country-level gender inequalities in human development. GDI's ratio-based approach, however, undermines the fact that a similar gap and a similar ratio can exist at both higher and lower levels of human development. Given the intricacies, it is critical that the GDI exhibits level-sensitivity and values convergent progress in human development while ranking country performances. This paper presents a level-sensitive gender development index, GDI\*, to overcome the constraints of simple difference-based or ratio-based ranking. The approach integrates the

notion of convergence in gender gaps, along with the human development level of the countries. We also present evidence to confirm the slow pace of progress in human development accompanied with high persistence in gender differentials. Also, convergence analysis based on log-t regression finds no evidence of global convergence in HDI gender gap even as certain convergent clubs are identified (5 clubs and 1 divergent group). In concluding, the GDI\* rankings draw attention toward bridging gender gap across both lower and higher human development contexts.

Status: Completed.

## **12. Towards Conceptualization of a Household Educational Indicator**

Udaya Shankar Mishra and Upasak Das (University of Pennsylvania)

Though education is essentially an individual attribute, its positive externality goes beyond the individual to household conditioned by its proximity and gendered features. Hence, education of the head or highest educational level within the household may not adequately represent the household educational levels. In this context, we construct a household educational index which combines three aspects: distribution of education among household members, highest education level among the male and female members and difference in highest education level attained between generations. The empirical results obtained using a representative survey in India, indicate considerable difference between the proposed indicator and the commonly used indicators. We also observe a strong association between our proposed indicator and welfare indicators like learning outcomes among children and having a toilet in the household. These findings imply the significance of conceptualizing a household educational indicator that accommodates the complexities of welfare externalities of individual educational levels.

Status: Completed.

## **13. Women's Participation in Domestic Activities. Leisure, Care Services, and Status Production**

Vinoj Abraham

This study aimed to analyse the rising share of women in unpaid domestic activities, as against the declining female labour participation rates. This issue has received only scant attention in the literature despite its phenomenal size and growth in the last three decades, as analytically this category is considered a residual, and most studies have tried to explain the changes in domestic activities as a fallout of the declining female labour participation rates. This study tried to instate that domestic activity among women is not a residual activity; rather it is central to women's work-life in a patriarchal society. Analytically, though individual labour supply models and household production models do provide insights into decision making with regard to paid work and unpaid work of women, these models do not take gender relations into consideration. Alternative theoretical constructs of capitalist development and culture are helpful in explaining the domesticisation of females with the rise of capitalism in patriarchal societies. The disempowered woman through the process of marginalization within the society engages



in status production for the household, who values status as a desirable good. Rudimentary empirical evidence are provided to support the above argument, though not conclusive. Empirical evidence show that Female LFPR had been declining and there exists a negative relation between income levels and female labour participation rates. In contrast, engaging in domestic activity seems to have increased over the years, and they have a positive relation with income levels. However, not all women are equally affected by a rise in income. In fact, the income effect seems to be affecting only the married women. Relationship within households seems to have a strong effect on the activity status women assume. Being a female spouse tended to enhance their possibility of being engaged in domestic activities while unmarried women did not seem to be affected. Marital status was an important marker that defined one's role. Yet, there was little evidence to show that it was the demand for care services that increased domestic activities among married women, as shown by the similarity in participation of married women in nuclear families and extended families. However, their place of stay, in their marital home, seems to accentuate domestic participation while women in general, even married women living in their natal home had a lower domestic participation rate. These indicators do suggest that women who are probably subjected to greater control by males through marriages, living in their marital home with rising income levels have a greater possibility of engaging in domestic activities. These domestic activities are not necessarily restricted to childcare, and may, to a large extent represent the women's status labour for status production. However, it may be cautioned that the evidence provided are only preliminary in nature. To authenticate the arguments made above on status production, a deeper analysis of the processes of status production is required.

Status: Completed.

## **RESEARCH PROJECTS**

### ***Ongoing Projects***

#### **14. Righting Gender Wrongs: A Study of Law Enforcement Responses to Online Violence against Women.**

(Title of sub-project on Kerala: *Walking on Eggshells in Cyberspace: A Report on Gender justice, Law Enforcement, and Women's Struggles and Negotiations in Malayali Cyberspace.*)

J. Devika with Darshana S. Mini (University of South California), Chithira Vijayakumar (Independent Journalist and Researcher), Elizabeth Alexander (TISS), and Resmi PS (Project Assistant)

*Sponsor:* In collaboration with IT for Change, Bangalore.

This project seeks to undertake an in-depth, multi-site research study that analyzes the enforcement leg in the life cycle of technology-mediated violence against women and girls (TMVAW) from a rights-based perspective, across 6 cities in three states in India (Kerala, Karnataka and Tamil Nadu). The project intends to make recommendations for

improvements in access to justice for victims, based on robust evidence on the gaps in law enforcement. In specific, it seeks to focus on the following areas:

- (a) Responses of the police when First Information Reports are registered (what sections of the law are applied)
- (b) Gaps in the conceptual understanding of the phenomenon and assumptions/biases among police officials at different levels
- (c) Lacunae in existing laws /legal frameworks that result in sub-optimal response of police agencies (inability to appropriately book/charge perpetrators for their crimes)
- (d) Challenges faced by police agencies in investigating cyber violence, including lack of digital infrastructure and technical capacity for evidence gathering
- (e) Difficulties faced by police in interfacing with Internet intermediaries
- (f) Typologies of violence experienced by young women, against the backdrop of rapidly changing use patterns / increased uptake of connectivity (particularly, mobile) by this demographic to get an idea of emerging trends. The idea is to map these findings against the understanding that law enforcement agencies currently have about this phenomenon to trace gaps/shortcomings in their current responses.

The Kerala research was based on mixed-method research in five prominent colleges in two major cities and a town. It comprised of:

- A self-administered survey covering over three hundred female students in six prominent colleges in two cities. The names of colleges, respondents, and interviewees are not mentioned to assure the anonymity we promised them.
- Six in-depth semi-structured interviews with police officials of different ranks, from that of the AGDP to ASI with considerable experience in cyber cells investigating cyber-crimes and setting up institutional frameworks, five lawyers supporting survivors of gender-based cyber violence against women, and four survivors.
- Five conversations with women activists online, including a very useful conversation with InjiPennu, a long-standing cyberfeminist activist from the Malayalam cyber world.
- Long conversations with five trans people who are active online, and five focus group discussions with groups of male and female students (who were not part of the survey) in the two cities.
- Experience-sharing sessions were woven into the administration of the survey and the short accounts shared by individual students (around a hundred) also form part of the qualitative material.

Besides these, we also collected media reportage of well-known cases of GBCVAW in Kerala, examined the awareness-creation material produced by the Kerala Police online, and also popular books that introduce online safety to general readers. Through this research, we hope to offer some insight into the nature of cyberspace which Malayali women, especially young women, inhabit, their experience of negotiating it, the kinds of violence they encounter online and the impact of these, the ways in which they deal with violence and assert their presence. We also reflect on the challenges faced by the police and the supporters of survivors in their fight for justice in the legal system, the patriarchal

ideologies that infect the narratives of law enforcement authorities, the limitations of the law, the possibilities and pitfalls of technology, and also on overcoming pitfalls and remedying gaps.

Status: Ongoing.

#### **(d) HUMAN DEVELOPMENT HEALTH AND EDUCATION**

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

##### **15. Understanding the Influence of Socio-economic Attributes on Varying Levels of Trust on Institutions Among the Indian Households: A Temporal Assessment**

Hrushikesh Mallick, Udaya Shankar Mishra and Balakrushna Padhi (JNU)

Using two rounds of survey of households by India Human Development Survey (IHDS) reporting on general levels of trust on institutions, the study attempts to make an assessment of variation in the levels of trust across various socio-cultural and economic groups in the Indian states. Prior to undertaking an empirical analysis on the determinants of overall trust score, the levels across its subcomponents indicate an improvement over time with the governance component having a greater trust deficit. By exploring the socio-economic determinants of trust of households in two periods of the survey separately, the regional factors and economic condition of the households shape the levels of trust more than others. While there is a characteristic convergence in trust score overtime, caste and religion-based difference seems to narrow down over time. The sensitivity of influence in shaping the trust is high at both extremes of trust levels. This exploration undoubtedly exposes a reality that reiterates the role of institutions in the realization of economic growth.

Status: Completed

##### **16. Shared Prosperity through Education? Chinese Turnaround in Regional Inequality and The Role of Education**

K.J. Joseph, Liyan Zhang (Tianjin University) and Kiran Kumar Kakarlapudi (Post Doctoral Fellow, NRPPD)

China's growth performance during the last three decades has been unparalleled in the history of large developing countries. Evidence suggests the high economic growth phase corresponds to two distinct phases of regional inequality: an increasing phase (1990-2003) followed by a declining phase (2004-15). Given the role of education and human capital in the process of growth, this article analyses the role of education in regional economic performance under two distinct phase of regional inequality. In line with the trends observed in regional inequality in per-capita income, our results indicate an inverted U shape in regional inequality of human capital.

Our econometric evidence, controlling for the possible endogeneity issue using the system-GMM method, substantiate the significant role that education played in bringing

about reduction in inter-regional inequality in the during the recent past, especially since 2003. To the extent that both periods were characterised by liberal approach towards trade and FDI, the analysis enabled us to conclude that the liberalised policies towards trade and FDI during the first phase were contributing towards accentuating inequality, presumably because of limited supply of higher educated manpower which was confined select regions. Whereas during the second phase, the targeted state policies and programs towards building human capital across regions regional balance in human capital stock leading to a reduction in inequalities in economic development.

Status: Completed

### **17. Abuse and Neglect of the Elderly in India**

Mala Kapoor Shankardass (University of Delhi) and S. Irudaya Rajan (Eds.)

This edited book included twelve chapters, which highlights problems and prospects of elder abuse in India. The first chapter envisages the current demographic situation and future trend of the elderly population in India, their living arrangements, marital status, working status and disabilities by different ages for both male and female and place of residence based on various Censuses and the projected figures. Also, the chapter describes the major diseases, disabilities and geriatric depression that affect the elderly at their dusk of life.

Elder abuse and neglect as a social, legal and public health problem is now recognized all over the world. The second chapter reviews the responses in the country to understand the concept in its various dimensions and suggests that there is still much more which needs to be done to prevent, detect and manage the problem, which is increasing as the population of older persons grows in the country.

Chapter three concluded that there is a scarcity of family caregivers, resource crunch, and tremendous deterioration in the 'Cultural Ethos of Elderly Care'. Adverse form of elderly care is reflected as Elderly Abuse, which can be dealt only when several social, political and developmental interventions are initiated along with legal and Human right interventions.

Chapter four describes the family violence and its reflections on elder abuse in India. The older persons were of the view that abuse could be prevented or controlled by strengthening intergeneration ties and sensitization of young adult children and or by increasing the economic independence of the older persons. But, the victims of abuse mentioned the need to develop effective legal reporting and redress mechanisms to deal with cases of elder abuse.

Chapter five explored the phenomenon of elder abuse, its forms and extent, role of perpetrators and policy and programmatic implications to minimise abuse among elderly on the basis of analysis of Maharashtra survey data.

Chapter six focused on types of elder abuse, epidemiology of elder abuse, how to recognize the signs and symptoms of elder abuse and its impact on the physical,

psychosocial, and mental status of the victim. Typical Case studies of older male and female older adults are illustrated to explain the epidemiology of elder abuse. Strategies for assessment, evaluation and early intervention are discussed.

Chapter seven aims to explain how these varying degrees of elderly abuse and neglect have affected the living arrangements and everyday care of the older men and women.

Chapter eight describes the vulnerability of elderly widows to abuse and violence. In the absence of social security, family as a fundamental unit of the society needs to be strengthened as a support system for the provision of care, emotional support and protection to older persons, particularly for elderly widows.

Chapter nine aims to understand the extent and nature of abuse and neglect faced by the elderly in families and in society by using the data from the Building Knowledgebase on Population Ageing in India (BKPAI).

Chapter ten explains the abuse among the elderly living with HIV/AIDS. There are and will be more dependents in the population as compared to the past as we move towards better health care. Numerous such cases remain unspoken and unnoticed; they may also have the tendency to refrain from complaining or resisting any such treatment due to the dependence.

The eleventh chapter gives the perception of Police and health care professionals about elder abuse. The chapter concludes with certain recommendations and suggests strategies to build mechanisms for creating conducive spaces for the elderly within the existing system.

The twelfth and last chapter discussed the different strategies followed in the different countries for prevention and management. It is the need of the hour that a multi thronged approach to the problem is adopted for active and healthy ageing of our population.

Status: Book published by Springer Nature Singapore, Pte Ltd. 2018.

## **18. What is Economic Development? A Comparative Performance of Indian States**

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

This book conducts a comparative assessment of development of Indian states. The book uses the conceptual framework proposed by Sen, Stiglitz and Fitoussi, (2009) to approach the problem. In this literature, development is a multidimensional concept. It identifies eight dimensions, apart from material prosperity, as an integral part of development. These dimensions are (1) Health, (2) education (3) Personal activities, (4) Political voice and governance, (5) Social connections, (6) Environmental conditions, (7) Physical security and (8) Economic security. The present study used these dimensions, except the dimension Personal Activities, in addition to material prosperity to assess the development performance of Indian states. The study used a number of variables to capture the achievement in each dimension of development. Performance across

variables under each dimension was aggregated to arrive at the relative performance of a state in a dimension. Performance across variables was aggregated using Kemeny's median ranking procedure. This procedure has the property of zero sustainability across variables. Similarly, to arrive at aggregate performance ranking, dimensions were aggregated using the same median ranking procedure. In addition to the ranking of states by aggregating across eight dimensions, the study also ranked states on the basis of three sub-components.

*Human Development:* Along the lines of the well-known concept of human development, this component includes dimensions of material prosperity, health, and education.

*Voice and Confidence:* Going beyond material comfort and basic human development indicators, this component includes dimensions of political voice and governance and social connections.

*Security:* This component considers the different aspects of human security and includes dimensions, personal security, economic security, and environmental security.

States were ranked on the basis of performance in all the eight dimensions taken together as well as on the basis of their performance each of the above three-sub-components.

Status: Book Published with Social Science Press, New Delhi, 2019.

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

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

Rising trends of caesarean section (CS) deliveries have 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 (Online)

## **20. Does Quality Qualify the Kerala Model? Decentralized Governance, Human Development and Quality**

N. Vijayamohanan Pillai

The present paper argues that the expansion of the vector of human capabilities in Kerala has tended to belie the Pythagorean dictum as well as the Marxian dialectics on a one-to-one correspondence between quantity and quality: the quantity increase has by no means led quality improvement, leaving her just with some *apparent* achievements in capability. We introduce in the paper an integrated theory of governance, public action and development in the framework of Sennian capability approach and human rights perspective and discuss the experience of Kerala in decentralization ventures, and evaluate the programme in the context of the implications for human development. We also attempt to develop a theory of quality and freedom on the premise that development as freedom from deprivation consists in realizing both availability (including accessibility) and utilizability (or simply, utility) of those, the public provision of which constitutes freedom from deprivation. In other words, realization of development implies that in its truest sense of this duality. Then the right to development, being a human right, *is* a right to *both*; even with availability, development is denied, and unfreedoms exist if utility is denied. In this light, we argue that such *apparent* capability enhancement in quantitative terms sans utilizability which we call '*a-capability enhancement*', however, is of neither intrinsic nor instrumental value.

Status: Completed.

## **21. Development as a 'Norms-Rights Transition Process' Through Public Action**

N. Vijayamohanan Pillai

The present paper has constituted the background source for a number of studies; it sets out to build up an interpretation of the conception of poverty in its multidimensional existence within the framework of human rights, human development and decentralization. Here we discuss the various implications of the links and linkages among human rights, freedom and development to develop a theoretical framework. Within this, we start from the original conception of poverty in terms of *minimum rights* to resources, by which people are seen as entitled, as citizens, to a minimum income. This is then extended to the comprehensive conception of development as freedom, *a la* AK Sen, approaching poverty in terms of the right to freedom. We argue that political freedom has substantial linkages towards social and economic freedom, all together constituting development, seen as 'removal of major sources of unfreedom' of both income and non-income dimensions. In the hardcore constitution of development/poverty, seen in terms of the most basic human right to life, the former (income dimension) specifies the right to resources, and thus to employment guarantee, while the latter signifies the right to building up human capital by means especially of health and education. Here we delineate the dynamic sequence of development as entitlement→ access→ freedom. This highlights the significance of the role of the state in opening up opportunities, that is, creating capabilities. Here individual freedom is taken up as a social commitment. We argue that community participation in the development

process through decentralisation of state power and functionings constitutes an autonomous and hence ideal means of targeting and tackling development issues through co-operatives. This, in turn, implies that the degree of decentralisation of power of a state is an indicator of its concern for and commitment to human development. This all the more becomes pertinent in the context of liberalisation drives by a state in its teleological transformation of role reduction. And the liberalisation drives by the concerned state thus imply a human rights violation.

Status: Completed.

## **22. The Dialectics of Motivation and Action: A Look into the ‘Why’ of the “Kerala Model”**

N. Vijayamohanan Pillai

The so-called “Kerala Model” had generated a lot of energy in both academic and political circles in diverse degrees of appreciation and apprehension. Given the absence of an analytical interpretation of this dynamic process, the present author sought to explore the ‘how’ of this development in 2003 in terms of a human rights perspective of ‘norms-rights transition process’ through public action: norms are progressively realised on a time-bound priority basis to form an ever-expanding set of rights through public action. This highlights the significance of the role of a willing state in opening up opportunities, that is, creating capabilities, in response to a pressuring public demand. Here individual freedom is taken up as a social commitment. Following this interpretation, the present paper attempts to look into the ‘why’ of the dynamics of “Kerala Model”. As explained in the earlier paper, it was the political will that prevailed over the constraints of economic capability in bringing about wonders in Kerala. This political will sums up the spirit of public action, involving both the demand and supply forces: organized public demand and willing state provision. And this, in turn, is made possible by a historical conjunction of complementary interaction between an objective enabling environment and a subjective receptivity, the motivations of the agents, here the state and the public, to act.

The initial objective reality in Kerala, to be precise, in the then princely States of Travancore and Cochin, corresponded to a state of flux in which the old order was fast falling under the pressure of the social-economic changes brought about by monetisation and commercialisation, nascent industrialisation and proletarianization of the working mass. The freedom struggle imparted the inevitable political dimension to this flux. Interacting in/with this objectivity condition in a complementary coupling is the motivational receptivity of the agents to development. The factors that determine such motivation are generally considered on two sets of assumptions of self-interested *homo oeconomicus* and what we call self-sacrificing *homo civicus*. It is the dialectics of these objective and subjective forces that have synthesized the development phenomenon in Kerala. Our point, however, is that this synthesis came out almost as an unintended consequence of formally unstructured and uncoordinated events and actions of many separate self-interested individuals/groups (including the state). It appears that an



‘invisible hand’ that is the historical dialectics was at work here – in line with the Smithian translation of self-interests into a social interest in their cumulative collectivity.

Status: Completed.

### *Ongoing Studies*

#### **23. 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)

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: Ongoing

### **RESEARCH PROJECTS**

#### *Ongoing Projects*

#### **24. 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

The 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 is 600 elderly. Survey was conducted in rural areas of three districts in Kerala. The sample district was selected on the basis of the 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 an equal number of male and female elderly. Also, it should cover all castes, religions. Finally, only those elderly are 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. 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: Ongoing.

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

*Sponsor:* Finance Commission, Govt. of India

S. Irudaya Rajan and U.S. Mishra

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 the differential experience of demographic transition. This project has relevance since the recent contention regarding the use of population share in federal transfer not based on 1971 census, but the most recent 2011 census has raised unfounded fears regarding states being successful in population control to lose against those who failed in population control.

Till now the population share served as the yardstick for resource allocation that renders states with success in population control loose and those lagging in this effort gain. This anomaly has led to a rethinking on consideration of characteristics and composition of population to guide the principles of allocation beyond the 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 an attempt at suggesting an alternative scientific method for the weight estimation for the resource allocation.

Specifically, the objectives of the project are, 1) To examine the interstate variation in trends in population growth during 1971-2011. 2) To decompose the population growth in terms of the natural components of growth and migration. 3) To reckon with quality dimensions namely education, distance of migration and social group identity in categorising the losing and gaining status of states, 4) to differentiate the states into dividend states and dependent states based on the population composition. 5) To design weight structure for devolution of resources in recognition of the demographic diversity of Indian states. The data for the purpose has been obtained from Census of India and National Sample Survey. The two main datasets used for the empirical exploration are the Census of India and National Sample Surveys (NSS).

Status: Ongoing.

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

### ***Completed Studies***

#### **26. Structure and Direction of International Trade through Kerala Ports**

P.L. Beena and George Paily (Doctoral Scholar)

The pattern of economic development is associated with structural changes in exports and expansion of export diversification worldwide. According to traditional trade theories, the removal of trade barriers can have an impact on the industrial dynamics of a country depending on the factor intensities of these industries. As a country engages more and more in international trade, its factors of production will enter increasingly into export sectors, where their return is higher, compared to import-competing sectors (Heckscher – Ohlin model). However, Grossman and Helpman (1991) argue that whether or not a country grows more from openness to trade depends on a number of factors, including its comparative advantage vis-a-vis the rest of the world. Buffie (1992) argues that whether an export boom acts as an engine of growth depends on the structural characteristics of the economy. Free trade could also be the primary source of economic downturn as trade liberalisation and openness might make imports more attractive than domestic production (Batra and Slottje, 1993; Leamer, 1998). In a globally competitive scenario, countries completely relying on the export of primary and low technology products will face constraints in the development process in a period of time, due to the negative trends in secular terms of trade, uncertainty arising from price variability and the fluctuating export earnings (Prebisch, 1964; Singer, 1975). 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; Isaac & Reddy, 1992; NRPPD, CDS; Joseph 2009; 2010), no attempt has been made to understand the overall pattern of exports through Kerala state during post- 1990s. As of our knowledge, there are limited attempts to characterise the trade performance of the Kerala state and its impact on industrial growth dynamics. 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). The focus of this paper is to analyse i) the nature and composition of exports of principal commodities through Kerala Ports and ii) the shift in the structure and direction of exports through Kerala Ports. The paper is divided into five sections. The growth pattern of exports through Kerala state and its significance is analysed in the first section. The second 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 seaport and SEZs is analysed in the third section. The export performance of the manufacturing sector of Kerala has been analysed in the fourth section. The last section sums up the major findings of the study and highlights the scope for further research while suggesting some policy changes.

The pattern of trade through Kerala is analysed by using port-specific data as state-level trade data are not available from Directorate General of Commercial Intelligence and Statistics (DGCIS). Though some of the products are exported through the ports of

neighbouring states, the port-specific trade data from Kerala is expected to reflect the direction of its trade and production structure.

Thus it is observed that the share of exports of Kerala to GSDP grew significantly during post- WTO regime. Although the exports of Kerala performed well during the post-WTO period, the rate of growth was low post-2010 as compared to the previous decade (i.e., 2001 to 2010). This trend is almost similar to the pattern experienced by India. Further, the study argues that there is a trade diversification among exports that took place through Kerala seaports. The share of the top ten export destinations of Cochin Sea Port has significantly declined from 2001 to 2017. The USA continued to be one of the largest export partners of Cochin Sea Port. UAE has emerged as the second most export partners of Kerala Seaport. But Russia disappeared from the top ten destination list while Korea and Singapore have emerged as Kerala's export partners.

UAE was found to be the major destination of Kerala exports through Cochin SEZs. Top leading ten countries accounted for 99 per cent of total exports that took place during 2017 through Cochin SEZs, which indicates that there is a trade concentration. Pearls, precious or semi-precious stones (HS 71) accounted for almost 98 per cent of such exports to UAE while the USA attracts products such as Fruits and Nuts; Coffee (HS 8), Tea and Spices (HS 9), Fish and other products (HS 3) etc. through Cochin Sea Port. Carpets and Other Textile Floor Coverings (HS 57) and Articles of Apparel & Clothing Accessories, Knitted or CR (HS 61) emerged as major exporting products especially to the leading destinations such as US and UAE from Cochin seaports. Further, it is observed that imports of Oil and Mineral products are a major component that determines Kerala's balance of trade. If the import component of Oil and Mineral products is included, the trade balance would turn out to be negative since 2006.

However, 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. These commodities are Primary agro-based, which accounted for 44 per cent while resource-based products accounted for another 24 per cent. High-technology exporting products accounted for only 4 per cent while Low technology and Medium technology products accounted for 18 per cent and 10 per cent respectively. While Pearls, precious or semi-precious stones/metals and article are the leading resource-based items exported through Kerala ports, the two major high tech products are Aircraft, spacecraft & parts thereof and Optical, measuring, medical & similar instruments & parts. Further, the study argues that the majority of the products exported through Kerala ports have intra-industry trade linkages. According to the ASI database, a large chunk of manufactured exported products from Kerala during 2014 are nothing but manufacturing of Food Products and Beverages. Manufactures of Textiles, Pharmaceuticals and Botanical Products, Manufacturing of Wearing Apparels, Fabricated Metal Products and Manufacturing of Furniture are the other leading manufactured exports from Kerala. Most importantly, the manufactured exported items which have shown negative trade balance are Computer, Electronic and Optical Instruments, Plastic and Rubber, Basic Metals and Manufacturing of Wood Products except furniture & straw & plating materials. These observations 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.

This study could not analyse the growth performance of exports of service sectors such as IT, Business services etc. as such data is not readily available. Further, it was observed that Kerala had a diversified export basket and therefore any form of trade fluctuations that affected local, national and global factors can influence the growth of the region. The strength and weakness of trade facilitation institutions such as export processing zones, software parks and specially designed commodity boards could not be analysed here. Export performance is also largely determined by the global demand, movements of world prices, productivity and institutional environment of the State. Export competitiveness of Kerala can also be analysed by comparing the export performance of their major competitors. Further studies can be taken up to review the functioning and efficiency of the Cochin port as compared to its competing counterparts as well as the technical and customs regulations faced by the trading firms. For this, the study would require intensive fieldwork in order to gather qualitative and quantitative information related to the functioning of the trade facilitating institutions.

Status: Submitted for CDS Working Paper.

## **27. Growth Strategies, Profitability and Developmental Implications of Indian Industries through the Lens of IPR Institutions**

P.L. Beena and Siddik Rabiyyath (Assistant Professor, Economics Department, Kerala University)

In the neoclassical framework, growth of business is akin to the growth of output and profit, which depends on the quality of the output and that perhaps, determined by the forces of the market. However, Ronald Coase asked a basic question that if market forces can facilitate the growth process, then why is there a firm existing in the market economy and can we rationalise the function and performance of the firm *vis a vis* the market (Coase 1937). The question is very relevant because, unlike having a firm as an equivalent unit of an individual who operates in the market, a real firm is an entity which fails the functioning of the market *per se*. That is, within a firm, the institutional understanding of contracting, property rights and asymmetry of information plays a crucial role and rationalises the existence of firm as a unit of production, which indeed different from the market functioning as the neoclassical theory suggests. In a nutshell, as the existence of the firm in the modern industrial structure, the production and marketing functions of the firms and hence, its growth is determined through different institutional frameworks. Generally, such institutional safeguards are often missed from the economic analysis of the industry. Therefore the study of developmental implications of the firms and industries are inextricably linked to the existence of different non-market institutions, which often marked outside the neoclassical framework. The surge in IP Assets in India is an indication of such a type of institutional change. Although the ultimate objective of competition and intellectual property policy should be to raise social welfare by promoting the supply of new and existing products and services at low prices (see Audretsch et.al, 2001; Encaoua and Hollander 2002), many would argue that IPR regime

raises rather than reduces barriers (Amann and Cantwell 2012, p.6). Ray and Saha (2011) argued that IPR law might not act as a magic formula to meet the targeted objectives set for rejuvenating India's public-funded research and encourage greater industry applications. Choudhuri (2014) found that only 12.6 percent of the patented products were commercially exploited in the country. Working rate of the patents granted was only 5.28 per cent per annum during pre-TRIPS regime, which has increased to 16.91 per cent per annum during the post TRIPS regime (Mani Sunil 2018)<sup>1</sup>. Given this context, the current paper tried to analyse the growth, profitability and developmental implications of Indian industries with a special reference to selected IP asset-intensive industries through the Intellectual Property Rights institutions.

The paper is divided into five sections, including introduction and conclusion. The first section would make an attempt to develop an analytical framework by surveying existing theoretical and empirical literature. Further, the study would make an effort to analyse the growth pattern of Intellectual Property (IP) assets (i.e., patents, trademarks and designs) in the second section. A detailed analysis on the association of IP asset surge and technological activities of sample industries such as Drugs and Pharma, Electronics & Computer, Communications and Software would be carried out in the third section with a comparative perspective. The fourth section would analyse the impact of such asset creation on the market structure, profitability, trade performance and growth pattern of developmental indicators such as output, value-added and employment of sample of four industries. The fifth section would sum up the summary of the paper. The study has made use of the data that originates from various sources such as PROWESS database published by CMIE, Indian statistics on trademark and patent activities and the United States Patent and Trademark Office (USPTO).

Status: Abstract accepted for International conference organized by IndiaLICS, August, 29-31, Ahmedabad, 2019.

## **28. Does on the Job Training Increase Labour Productivity and Wages? Firm-level Evidence from India's Manufacturing Sector**

K.J. Joseph

Human capital is important for economic growth and firms' competitiveness. One of the major issues in the labour markets in developing countries is the relative scarcity of skilled manpower to undertake production in the context of changing technology. Studies also highlight that skill mismatch is a crucial factor in constraining labour productivity. Therefore, economists have paid much attention to the study of human capital investment (including school education and on-the-job training). Many studies in the Indian context have attempted to analyse the underlying factors to explain labour productivity in the manufacturing sector. The available literature mostly focuses on the role of FDI, trade, and technology. To the best of our knowledge, there is hardly any study in India that dealt with the bearing of firm-provided on-the-job training on labour productivity. The main difficulties in exploring the issue at hand elates to the limited availability of detailed firm-

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<sup>1</sup> An interesting finding was that the leading Indian IT firms have started filing for patents at the USPTO, where the software patenting is allowed.

level data, and the potential bias in econometric estimation due to the unobserved firm heterogeneity and the endogeneity problems. This paper, for the first time, analyses the role of on the job training in labour productivity in the Indian context. Further, it advances the research on the effect of training in two dimensions. We exploit the details of on the job training using World Bank Enterprise Survey (2014), and a large dataset containing all large- and medium-scale Indian manufacturing firms with detailed operation and training information. Secondly, we address the issue of endogeneity using the self-section models and the propensity score matching (PSM) method. The study highlights the positive effect of on the job training on labour productivity - a finding with much relevance for policy.

Status: Completed.

### **29. Efficiency of Indirect Taxes in Oligopoly in the Presence of Fixed Costs of Production**

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 a 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: Completed.

### **30. Taxes and Unemployment**

Rajit Biswas and Vandana, T.R. (Research Intern at National Accounts Analysis Division, Department of Economic and Policy Research, Reserve Bank of India)

The present model revisits the issue of unit and ad valorem taxes in a model of monopolistic competition. It is shown that if the assumption of full employment is relaxed, then taxation can increase employment conditionally when the elasticity of substitution among the varieties is low. Moreover, with the same level of initial unemployment, the imposition of ad valorem taxes are better than unit taxes, when the targeted tax revenue is relatively high, and scale economies are strong.

Status: Completed.

### **31. Price Dispersion in Indian Online Market: Seller vs product Effects**

Ritika Jain and Anupama K John (Centre for Social & Economic Studies)

Price dispersion, defined as, “the distribution of prices of an item with the same measured characteristics across providers of the item at a given point in time” (Pan, Ratchford, and Shankar 2004), is an important issue from the perspective of customers, sellers and the

market. It affects the search and purchase behaviour of consumers, while for sellers, it influences their pricing strategy and interaction with other competitors.

Price dispersion can be an equilibrium or a disequilibrium phenomenon. It is thought of as an equilibrium phenomenon when there are positive sales at all prices in the equilibrium range of dispersed prices. On the other hand, it is considered to be a disequilibrium phenomenon if price dispersion decreases as the market matures culminating in one unique price. The empirical evidence suggests that price dispersion is more of an equilibrium phenomenon rather than a disequilibrium phenomenon (Baye, Morgan, and Scholten 2004a, 2004b; Pan, Ratchford, & Shankar 2001). A theoretical exposition for price dispersion, therefore, would depend on whether it is an equilibrium or a disequilibrium phenomenon. It arises as an equilibrium phenomenon when there is imperfect information about the distribution of prices among consumers (Salop and Stiglitz 1977; Varian 1980) or when some customers are loyal to a particular seller that they choose not to purchase at the lowest quoted price (Narasimhan 1988; Shilony 1977). In these models, the sellers randomise their prices hoping to attract informed customers/ 'shoppers', who look for the lowest quoted price, while ensuring at the same time that the loss of profits from uninformed/ 'loyal' consumers by charging a lower price is minimised. Apart from this oligopolistic mixed strategy, the equilibrium price dispersion could be a result of heterogeneity in the characteristics of producers. The characteristics that differentiate the sellers could be observed or unobserved characteristics (Brynjolfsson and Smith 2000; Pan, Ratchford, and Shankar 2001; Varian 2002).

There exist a large number of studies on price dispersion and its potential drivers. However, the current study investigates price dispersion in the context of e-commerce industry. One of the most unique features of the e-commerce industry is the ease of transaction for both consumers and producers. According to the World Bank, e-commerce has expanded exponentially across countries. The surfacing of various price comparison websites is anticipated to facilitate the free flow of information and thereby lower the consumer search cost. This diminution of search cost may translate into a decline in price dispersion. Empirical evidence, however, reveals the opposite implying that the online markets are far from frictionless as expected (Baylis and Perloff 2002; Brynjolfsson and Smith 2000; Clay, Krishnan, and Wolff 2001).

This study is an attempt to determine some aspects of price dispersion in the Indian online market. According to the 2017 CIGI-Ipsos Global Survey on Internet Security and Trust conducted by Ipsos (on behalf of Centre for International Governance Innovation, United Nations Conference on Trade and Development and the Internet Society), India was among the fastest-growing e-commerce markets. The fast pace of online retail business in India makes it interesting to study against the stark contrast of low internet penetration. The study focuses on a subsection of the online market in India to examine the existence of price dispersion. As a next step, we also attempt to investigate the reason behind this price dispersion. Data on prices of twenty books were collected from the four largest e-commerce retailers for a period of sixty days (January 11, 2017 to March 15, 2017). This information was acquired from an online price comparison website for books, [www.IndiaBookStore.net](http://www.IndiaBookStore.net). It is a meta-search engine for comparing book prices and availability across all popular



stores. It earns revenue from online stores for each sale that happens through IndiaBookStore.net. To ensure the accuracy of the data, we double-checked the price for each book on each available online seller on a daily basis. Further, to avoid unusual spikes in consumer traffic, leading to price discrepancies, we collected data for all books in a given time slot during the day. The dataset contains information on listed prices, final prices (inclusive of delivery charges) and customer ratings of e-retailers.

Using existing absolute and relative measures of price dispersion, the study confirms the presence of price dispersion in the market. The reason for price dispersion in the current context was analysed by examining existing price dispersion theories such as the clearing house models and the seller heterogeneity models. It was found that the empirical experience of the Indian online books market has different implications if price dispersion is calculated at the aggregate level (all books) or disaggregated level (individual book). The study finds clearing house and seller level heterogeneity models not being able to explain the Indian experience. Instead, it is seen that business strategies adopted by sellers (which might not be directly observable to consumers) to be closely associated with price dispersion. The study also examines the role of product-level characteristics in price dispersion. Specifically, the study divides books according to the popularity and base effects and finds they were closely associated with price dispersion. To summarize, price dispersion in the current context is far from being random. It is partly explained by differences in business strategies and book level characteristics.

Status: Submitted to *Festschrift* by Springer International.

## **32. Effects of Product Patenting on Market Structure and Prices: Evidence from Post-TRIPS Pharmaceutical Industry in India**

Sudip Chaudhuri

Considerable speculation and controversy have surrounded the potential impacts of patent protection under WTO's TRIPs Agreement on developing countries. The pharmaceutical industry has been central to this debate, especially the case of India. During the AIDS pandemic, when patented products were exorbitantly priced, supply of these drugs from India dramatically made medicines affordable and accessible. Now that India has re-introduced product patent protection in pharmaceuticals in line with TRIPS, what has been the impact on the pharmaceutical market and prices? This paper examines a comprehensive database covering all the products in the market. In contrast to claims that there has been little negative impact of TRIPs, this paper demonstrates that the pharmaceutical market in India is becoming increasingly monopolized. Firms have started charging very high prices at levels unheard of in the pre-TRIPs period, especially in critical diseases such as cancer. India has not been able to use the TRIPS flexibilities effectively. India's experience suggests that the basic TRIPS objective of striking a balance between the developers and users of technology may not be working the way envisaged. This is a very serious issue and justifies a fundamental re-look into the entire matter of patent protection and developing countries.

Status: Revised, completed and submitted for publication.

### **33. Graduation from LDC Status and the Pharmaceutical Industry in Bangladesh**

Sudip Chaudhuri

Bangladesh has one of the most advanced pharmaceutical industries not only among the Least Developed Countries (LDCs) but also among the developing countries. As an LDC, Bangladesh is entitled to delay till 2033 the implementation of the provisions of the TRIPS agreement related to pharmaceutical products. Hence Bangladesh is not required to recognise product patent protection in pharmaceuticals till then. But going by the criteria used to classify a developing country as an LDC, Bangladesh may lose the LDC status by 2024. In that case, Bangladesh will no longer be able to benefit from the transition period and hence will have to introduce product patent protection in pharmaceuticals and abide by the other requirements under TRIPS. The study analyses the impact of the graduation from LDC status on the growth of the country's pharmaceutical industry. The paper concludes that in the light of the significant progress and a number of initiatives taken by Bangladesh to further develop the industry, the country deserves to be given some more time and be exempted from introducing product patents till 2033 even if it were to lose the LDC status earlier.

Status: Completed and submitted to the sponsor, the South Centre, Geneva. The study involved a field trip to Bangladesh.

### **34. India-China Trade: Asymmetrical Developments and Future Prospects.**

Sunandan Ghosh, Manmohan Agarwal, Adrita Banerjee (Research Scholar)

This paper seeks to provide an overview of the evolution and analyse the changing composition of trade between India and China over the period 1983-2017. We find that Chinese exports are almost completely concentrated in manufactures, especially finished equipment goods, whereas Indian exports consist of both agriculture and manufactures and over time have shifted predominantly to intermediate goods. Further, both the countries are exporting those commodities to each other, in which they have a revealed comparative advantage, with China's exports being more diversified. We employ vector error correction estimation and show that China's exports to India are dependent on India's household consumption expenditure while India's exports to China are correlated to Chinese manufacturing value-added. Finally, we calculate the share of each country's commodity-wise export to the partner in their respective total exports with a view to studying prospects for India-China trade. We conclude that for further trade expansion, diversification is extremely necessary and Indian exports of inputs to Chinese industries need to change substantially to accommodate the changing nature of China's industrial structure.

Status: *South Asia Economic Journal*, Vol. 20(1), 70-93.

### **35. Parallel Imports, Product Quality and Endogenous Trading Bloc Formation**

Sunandan Ghosh

This paper analyzes the role of parallel imports (PIs) in determining both optimal product quality and optimal trade policy. We consider a three-country world economy, where poor

(P) and middle-income (M) countries import a vertically differentiated good produced and exported by a patent holder monopolist in the rich country (R) when PIs are allowed. In the presence of both inter and intra-country taste diversity, PIs lower the level of innovation irrespective of tariff regimes vis-à-vis when PIs are not allowed. The optimal tariff levels imposed by the importing countries are lower under PIs irrespective of the tariff regimes. Formation of a Free Trade Area (FTA) by R is feasible with side-payments to its FTA partner given intra-country taste diversity. A customs union (CU) among the importing countries turns out to be globally Pareto superior given both inter and intra-country taste diversity. The level of innovation is highest under such CU as compared to all other tariff regimes.

Status: *Economics Bulletin*, Vol. 38(3), 1415-1427.

### **36. Enlargement Decisions of Regional Trading Blocs with Asymmetric Member Formation**

Sunandan Ghosh

This paper analyses the conditions under which an existing bilateral free trade area (FTA) prefers to expand in size and when it prefers consolidation through customs union (CU) formation when the existing members of the FTA are asymmetric, both with respect to production technology and domestic market sizes. The analytical framework employs a standard oligopolistic strategic trade model in a three-country world. In the presence of technology asymmetry, there will exist a clash of interest between the FTA members while the non-member will always prefer to join the bloc. Global free trade can be sustained as a subgame perfect equilibrium only for lower degrees of production inefficiency while for higher degrees of production inefficiency a CU between the initial members can be sustained in the presence of some side payments. Given market size asymmetry, both the initial FTA members will offer accession to the non-member country. However, the non-member country will accept the offer of accession only if the market size of the smaller initial member is larger than a critical value.

Status: *CDS Working Paper Series*, No. 480.

### **37. Delegation in Customs Union under Taste Diversity**

Sunandan Ghosh

This paper investigates how diversity in consumer tastes among potential customs union (CU) members influences delegation decisions between them in the context of CU formation. The model used involves a monopolist, situated in a non-member country, which chooses the quality of a vertically differentiated good to supply to two potential CU members. Formation of a CU can be sustained only if the monopolist chooses to serve consumers with both low and high maximum willingness-to-pay in the potential CU members. Delegation decision in setting common external tariff depends on the degree of taste diversity and size of population in each member.

Status: Revise and resubmit stage of reviewing.

### **38. Protectionism: US Tariff Policy and India's Response (Part II)**

Sunandan Ghosh

The US government imposed significant tariffs on its imports from China in 2018. This was retaliated by China slapping tariffs on its imports from the US, leading to a trade war. This commentary looks into the various aspects of the US-China trade war. We first try to analyse the trade war itself and its causes followed by some immediate reactions and opinions. We also discuss the possible impacts of the US-China trade war on India. Finally, we analyse aggregate bilateral trade data between China, USA and India separately to analyse the immediate outcomes of the trade war on the USA, China and India.

Status: CDS Commentary on India's Economy and Society Series – 4.

#### ***Ongoing Studies***

### **39. IPR Institutions, Growth strategies and Developmental implications of Indian Industries**

P.L. Beena

As part of WTO agreements, India has implemented a new IPR regime upon which firms have to follow product patent instead of a process patent. This new institutional mechanism is designed to encourage invention by protecting their monopoly rights. Although the linkages between IPR regime and economic development are difficult to measure (see Maskus, 2008, p.50), the defenders of TRIPs argue that stronger protection of intellectual property rights is essential for innovation, knowledge generation and therefore economic development. Apart from this, strong IPR would bring FDI and advanced technology created by developed countries. It is argued in the literature that Inward FDI can lead to technological spillovers and vocational skills which are useful for R&D whereas imports of advanced products such as capital goods produced by developed countries can help host economy to exploit natural resources and surplus labour (Hassan et.al, 2009; Clark et al. 2011). However, it is argued in the literature that this could be possible only for those countries with strong technical absorptive capabilities<sup>2</sup>. Although the overall number of patents have increased in India but most of these patents are secured by foreign firms located in the country. It is further argued in the literature that only 12.6 per cent of the patented products were commercially exploited in the country (Chaudhuri, 2014 as cited in Mani 2018). Working rate of the patents granted was only 5.28 per cent per annum during the pre-TRIPS regime, and that

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<sup>2</sup> It is argued that the most successful firms are trying to invest abroad through CBM&As for various reasons such as access to technology, markets, brands, patents, design, copyrights and trademarks (Beena 2018). Such strategies also aims at increasing corporate global competitiveness by pursuing related diversification and by integrating affiliates into global production networks and technology, to move up in their production value chain and secure international brand names.

rate has increased significantly to the level of 16.91 per cent per annum during post-TRIPs regime (Mani 2018)<sup>3</sup>. It is also evident that the share of trade-mark registration in India is much higher than patent registration, although its impact on brand differentiation across industries is not known (<http://www.tradingeconomics.com/india/trademark-applications-total-wb-data.html>)<sup>4</sup>.

Trademarks are largely related to product innovations, whereas patents are related to a mixture of product and process innovations (Greenhalgh and Longland 2001). It is also argued in the literature that the existence of trademarks play a part in allowing greater flexibility in the way production is organised. Upstream firms specialize in marketing and innovation, while downstream firms specialize in supplying (Greenhalgh and Rogers, 2010, p. 310). However, the significance of knowledge flows from advanced country firms to support technological upgrading of developing country suppliers seems to be contributing little to firms' progression from Original Equipment Manufacturer (OEM) to Original Design Manufacturer (ODM) and Original Brand Manufacturer (OBM) positions in global chains (Schmitz, 2004; Giuliani, et.al; 2005). It is further argued that local investment in creating and cumulatively deepening knowledge resources provide the necessary basis for participating in global value chains and networks (Ernst and Kim, 2002). A formal registration system for trademarks would discourage deliberate imitation of products or services by competitors, and therefore trademarks are also important for innovation. Anti-competitive distortions associated with perception, advertising and the legal monopoly on the use of trademark can create potential distortions (Economides, 1997). Trademark activity by rivals in any industry can reduce the firm's value of output, by putting downward pressure on prices and profit margins through the business-stealing effects rather than knowledge spillovers (Greenhalg and Rogers, 2007). According to Edquist et al., (2001), product innovations are employment creating while the process innovations are employment destroying. The net increase or decrease in employment outcomes of industrial development would largely be determined by the relative strength of the effects of product versus process innovations.

Though there are many empirical studies on Innovation and Intellectual property, most of those studies either looked at the association of R&D and patents within manufacturing sector (Griliches, 1981; Arora, 2000; Arora, 2001; Kanwar and Evenson 2003; Kanwar 2012), or on the technological transfer through FDI inflows and its impact on productivity (Kathuria, 2010; Kachoo, Ruchi and Madan 2018); or the impact of IPR on market structure and pricing (Choudhuri, 2018; 2019).<sup>5</sup> While many studies (Marzel and Tortajada-Ezparza, 2007) brought out the advantages of using patents as an innovation

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<sup>3</sup> An interesting finding was that the leading Indian IT firms have started filing for patents at the USPTO, where the software patenting is allowed.

<sup>4</sup> As on 2009, China ranked the top in terms of trademark applications and India ranked number four following US, Japan and Republic of Korea.( Manual Mira Godinho and Vitor Ferreira ,201, p.12)

<sup>5</sup> The existing literature reveals that 75.5 per cent of the EU export share is accounted for by trademark-intensive industries. These trademark-intensive industries contributed almost 34 per cent of European Union GDP and 21 per cent of all employment (<http://www.europeantrademark.it/category/blog/> Posted on [18/10/2013](#) by [Stefano Merico](#)).

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 Manual (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. Firms, therefore, need to invest further to keep and improve the quality of their trademark-protected products as the brands associated with existing trademarks gain wider recognition. Given this context, an attempt has been made here to understand the growth pattern of IP assets<sup>6</sup> creation across Indian industries, technological activities of selected industries such as Drugs and Pharma, Computer & Electronics, Telecommunications, and Software industries and check whether such strategies have led to any change in their market structure or created condition for appropriating monopoly profit. The paper further tries to analyse the performance of these industries in terms of output, value-added, employment and trade performance. 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 analyses the technological activities of selected Technology intensive Industries. The association between IP asset creations on the market structure, monopoly profit and on other development indicators such as the growth of output, value-added, employment and trade performance is being analysed in the fourth section of the paper. The major findings of the paper are summarised in the fifth section.

Based on the analysis, we could argue that there is a surge in IP asset creation during post-IPR regime, although the share of patents secured by MNCs is higher than domestic firms. The similar pattern is observed across industries. However, the study noted that Drugs & Pharma and Food industry is more trademark intensive than patent-intensive. The paper further observed that the technology-intensive industries are spending more on technological, skill formation and marketing activities which are measured in terms of various indicators. The major share of the market of these industries is controlled by a few firms in the respective industries. However, these industries are not able to gain monopoly profit during post-IPR regime due to the low growth in sales and value-added. However, the available studies on the market structure and pricing behaviour in the Drugs and Pharmaceutical industry in India during the post-IPR regime indicate a discouraging trend (Choudhuri 2018; 2019). The improvement in the wage component in the Drugs & Pharmaceutical industry and Software industry indicate that these industries are spending more on skill formation. However, the declining trend in the growth rate of employment across all these industries does not support the argument that product innovation

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<sup>6</sup> IP asset in this paper defined as the total number of assets which comprises of patents, trademarks and designs.

generates employment while process innovations are employment destroying (Edquist et al., 2001).

Status: Ongoing.

#### **40. Mergers & Acquisitions and Antitrust Implications in Industrial Sector**

P.L. Beena

The new policy packages initiated by Government of India including ‘Make in India’, removal of entry barriers of foreign investment in order to tap more foreign savings and better technology is expected to transform Indian economy as a manufacturing hub. However, the most successful firms are trying to invest abroad through CBM&As for various reasons such as access to technology, markets, brands, patents and design, copyrights and trademarks. An attempt has been made in this paper to analyse the trends, pattern and motives of Mergers and acquisitions during post-2000 and its antitrust implications.

Status: Ongoing.

#### **41. OFDI and CBM&As in Indian Industries: Trends, Determinants and Implications**

P.L. Beena

Although India has been successful in attracting foreign investment since the 1990s, the scenario of growth in investment is quite gloomy and the major sources of finance to the industry have been corporate bonds and commercial paper which has led to the accumulation of external borrowings (Beena 2011; *Economic Survey*, 2017-18). Major share of FDI has come in the form of portfolio investments (Rao and Dhar, 2011; 2018) and brownfield investments (Saraswathy, 2010; 2018) which are nothing but the replacement of the existing assets and that do not create any additional employment (Kumar 2001; Beena, 2001;2008;2014). It is further argued in the literature that financial liberalisation led to the accumulation of a large share of financial assets as compared to physical assets. And such an investment decision made by the non-financial corporate sector failed to contribute aggregate assets and profitability in the economy (Sen & Dasgupta, 2018).

While policymakers have initiated various packages including ‘Make in India’, removal of entry barriers of foreign investment in order to tap more foreign savings and better technology, the most successful firms are trying to invest abroad through CBM&As for various reasons (Beena 2018). Though there are many studies available on trends and implications of OFDIs, Sauviant and Pradhan et.al, 2010; Athreye and Godley, 2009; Athukorala,2009; Beena, 2014, Lall,1983; Lall, RB,1986; Morris,1991; Nagaraj 2006; Kumar & Chadha,2008; Khan, 2012; Mani,2013; Kavitha, 2012; Kallummal *et al*,2016; and Outward Foreign Direct Investment (OFDI) through CBM&As (Nayyar, 2008; Beena, 2007; 2011; Beena, 2014;2018), none of those studies had looked at the industry-wise analysis on the determinants and consequences of such investments through

CBM&As. This paper makes an attempt to fill this research gap. Further, this paper tries to understand the overall investment and financing pattern of such OFDI firms across Indian industries.

Status: Ongoing.

#### **42. Tariff Protection, Home Market Effects and Non-Traded Goods**

Rajit Biswas

In models of monopolistic competition with a single factor of production, imposition of tariff can lead (paradoxically) to a drop in the aggregate price index of the import competing sector. The present model first introduces an internationally mobile capital in such a setup. It is found that tariff attracts a capital inflow into the protected sector, which results in a reduction the price index. Interestingly, the tariff protected importing sector may not expand, although the domestic price index falls. However, if there is a homogeneous non-traded good, along with the mobile capital, effect on the price index of the import-competing sector becomes ambiguous. Further, the number of varieties produced by the import competing sector can actually fall, and the import competing sector may actually contract.

Status: Ongoing.

#### **43. The Case of the Missing Middle in Indian Manufacturing Sector: A Firm-Level Analysis**

Vinoj Abraham and Sunandan Ghosh

This study revisits the ‘missing middle’ phenomenon of the Indian manufacturing sector. Though missing middle has been described and analysed by many studies, a key gap in the literature that we note is that the phenomenon of ‘missing middle’ has been taken as an accepted artifact of the Indian manufacturing sector. We look into the size-structure relation based on the frame that ‘class interval-based’ and ‘aggregate level’ analyses of the industrial sector may be misleading. We use the firm-level data available for ASI to check for the “missing middle”. Further, we look for the trend both at the aggregate and disaggregate levels. We are unable to find a missing middle, either at the aggregate or disaggregate level, once we drop the classification of data based on a priori class intervals. We find that most firms in India are small firms, and there is no evidence of a clustering of firms at higher size categories. However, it may be possible to argue that there is a “missing middle” provided we accept that there is a possible ideal distribution of firms across size classes operating under specific conditions.

Status: Ongoing.



## RESEARCH PROJECTS

### *Completed Projects*

#### **44. Business Distress in Kerala: A Case Study of Chendamangalam Handloom Industry**

Sunil Mani, P.L. Beena and Kavitha P (Doctoral Scholar)

*Sponsor:* World Economy Project funded by Govt. of Kerala, 2018-19.

Chendamangalam is a village of Paravur Taluk in the Ernakulam district of Kerala which is located about 30km 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 are now trying very hard to resurrect it. The purpose of this paper is to understand the functioning of the units run by the handloom industry located in this cluster, which was badly hit by the flood. This is extremely important as these units were providing a livelihood to many households. The specific research questions of the study are the following: What are the socio-economic background 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 labour? How is this industry mobilizing capital, labour and raw materials to run the units and who were their customers? What is the financial implication of flood on the production and livelihood of stakeholders/workers of this industry and state response? What is the future of this industry and check whether this industry can be rejuvenated through any modern innovative strategies? An attempt is being made in this paper to answer some of these questions based on primary and secondary sources. The paper is divided into five sections including introduction and conclusion. The first section tries to understand the historical root of this industry at Chendemangalam cluster while analysing the nature, production and organisation structure. An effort is being made in the second section to highlight the significance of Chendamangalam society as compared to other handloom units in Kerala. The role of the state and the growth of the handloom industry before the flood are being discussed in section 3. The scenario of Chendamangalam society after the flood, its financial loss and role of the state for the revival is discussed in detail in section 4. The last section sums up the major findings and policy suggestions. Primary data is collected by visiting Chendamangalam weaving units based on a structured questionnaire.

Although the total number of looms in handloom industry has declined from 31141 in 2012-13 to 17070 looms in 2017-18, the total production of handloom sector in the co-operative sector has shown a marginal increase from 28.37 million meters in 2012-13 to 34.19 million meters in 2018-19. The improvement of the production is also experienced by the corporate/private/unorganised sector of the handloom industry. Similarly, the total number of weavers employed in the handloom sector shows a declining trend from 52171 weavers in 2012-13 to 14171 weavers in 2017-18. Among this, the co-operative sector

occupies the largest number of weavers. The number of women employed in the handloom sector decreased from 21434 in 2012-13 to 11553 in 2017-18. The number of women employed in the co-operative sector of handloom industry has also shown a declining trend from 20854 in 2012-13 to 10630 in 2017-18.

Seven primary handloom co-operative societies in Chendamangalam of Paravur falls under the common brand “Chandamangalam handlooms”. Their main product “Dhothi” has acquired a Geographical Indication tag. A yarn bank registered under the co-operative fold assists them in the procurement of quality raw materials. The traditional products such as Sarees and Dothis are manufactured by cottage units and procured by the Society and sell it through their showrooms, exhibition centres and textile showrooms. Apart from the traditional handloom products, the weavers of these societies are also engaged in the Handloom School Uniform Programme, a prestigious programme of Government. Through this programme, the Government ensures continuous employment to the handloom weavers with better wages and at the same time provides handloom uniform to school children at free of cost. Under the project, workers who were earlier getting only Rs 150 started getting Rs 600 as daily wage. As pay and orders increased, the handloom units too took an interest in the project, and the government supported them by providing raw material and procuring their final products. This programme turned out to be a boon to the handloom weavers/allied workers. Many weavers/allied workers who had left this field for better opportunities slowly returned to weaving and joined the school uniform project. This programme also attracted new people to this sector.

In the flood, the entire looms, infrastructure facilities, fabric and raw materials of all these seven societies and yarn bank were severely damaged. The pre loom weaving equipment/facilities of all the societies were damaged beyond repair. Further, the earlier facilities viz. Prin/bobbin winding machines, boiler, kier, hydroextractor, drying, dyeing, warping, sizing facilities/equipment were time-consuming and of obsolete technology. In this context, it is necessary that new state of the art, high speed and cost-effective facilities could be provided to the weavers in this area. The common facility centre with all the above-said facilities is expected to be installed by the government of Kerala in the premises of any of the societies. Apart from such packages, the state has also taken the initiative to ensure the accountability of CSR fund allotted for the revival of looms by some firms as well as NGOs and this responsibility was given to the district collector.

As the flood devastated Chendamangalam unit (specifically H-191), the only option for the weavers were to burn their severely damaged and soiled stock which could not be fixed even by dry cleaning. In this particular time, two social entrepreneurs Lekshmi Menon and Gopinath Parayil has given a new life to the weavers in the form of Chekutty<sup>7</sup> (a small handmade cloth doll made from flood stained fabric of Chendamangalam Handloom) and helped them to raise funds greater than the original stock and also helped these units to revive their unique art. Initially, waste cloths were collected only from H-191 and later on started collecting from H-3476 too, which was managed by women.

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<sup>7</sup> Chekutty, the term means ‘Girl who survived the flood’.

Chekutty was conceived as a three-pronged strategy in the post-flood scenario. The handloom society did not have any online sales until the flood occurred during August 2018.

Based on the interactions with different stakeholders such as president and secretary of Handloom Cooperative Societies, Government officials, NGOs, Weavers and other individuals, it was observed that this sector could be preserved only with the support of the state by procuring the finished handloom products. Growth dynamics can be brought in to the sector only through product diversification and online marketing. However, the viability of the implementation of such initiatives is under question with the present organisation set up as 90 per cent of the handloom weavers are above sixty years old, and they are not ready to accept any change. And therefore, the government needs to take a special effort to attract more young employees to this sector, including professionals. The success story of Chendamangalam school uniform project suggests that many more such projects could be initiated by targeting the other government hospitals to supply their requirements. Such packages can only help for generating livelihood for the marginalised section.

Status: Completed Report.

### ***Ongoing Projects***

#### **45. Structure, Direction and Export Contribution of Cochin SEZ in Kerala**

P.L. Beena

*Sponsor:* Kerala World Economy Project, Govt. of Kerala.

Trade liberalisation policies followed by the Government of India during the post-WTO regime are expected to influence the export performance and industrialisation process of each state. An earlier study by Beena (2018) observed that the major export through Kerala ports in value terms is Gems and Jewellery & Metals, and it accounted for 25 per cent of the total exports through Kerala ports. A significant amount of this export took place through Cochin SEZ. The study has further observed a low level of net export ratio with a positive trade balance for this item while the same ratio for Electrical machinery is quite high with a negative trade balance. Electrical machinery and equipment and parts thereof (HS 85) is found to be the second-largest exported item through Cochin SEZ. Further, the study noted that one-third of high tech products such as Optical, measuring, medical and similar instruments and parts (HS 90); Nuclear reactors, boilers, machinery and mechanical appliance etc. (HS 84); Aircrafts, spacecraft and Parts thereof (H 88) are exported through SEZ. The structure of export through SEZ and the direction of exports could be different if the analysis is done at a more disaggregated level. For instance, our earlier study noted that UAE was the leading export partners of Cochin SEZ, which accounted for 99% of total exports. However, if we take out the major item from the exporting basket, US found to be the major exporting partner of SEZ accounting for 55% of total exports. Another 45% was exported to many other countries such as the UK, Sri Lanka, Bangladesh, UAE, Vietnam and other European and Asian countries. Given this

context, this study is aimed at understanding the structure and direction of exports through SEZ and its contribution as far as domestic economic development is concerned. The study would also make an effort to locate the participation of leading firms in the global value chains and the nature of the production process. It is argued that global value chains having end markets in the more advanced countries place more emphasis on standards and tend to have higher requirements in terms of quality and product sophistication. Structural factors such as financial markets, infrastructure, human capital, local industry networks should also be conducive for participation in value chains (UNCTAD, 2013). Therefore it is important to understand whether legal & institutional framework and other structural factors are conducive for participation in GVCs. 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. The specific objectives of the study are the following:

- Analyse the structure and direction of leading exporting products through SEZ at a more disaggregated level.
- Estimate the contribution of leading exports in terms of value addition and employment.
- Analyse the participation of firms in GVCs and nature of domestic production process.
- Analyse whether economic and structural factors are conducive for participation in value chains.

The study would consider the volume of exports through Cochin SEZ as a proxy variable to measure the international trade dimension of the state. The study would make use of the data from WITS and customized data available from DGCIS website. The field survey of the exporters located at SEZ could be carried out for estimating the contribution of exports in terms of value addition and employment. The questionnaire could be finalized after a pilot survey with the exporters through SEZ and manufacturing units. The questionnaire could also consider questions related to the general information of the firm, export performance of the firm, value addition and employment, issues related to infrastructure, identification of transaction cost, trade facilitation, export promotion, state's provisioning of infrastructure, state's involvement in the lowering of transactions costs and trade facilitation. Such analysis would help in the redesigning of the trade promoting policies of the state.

Status: Ongoing.

## **(f) INNOVATION AND TECHNOLOGY**

### ***Completed Studies***

#### **46. Innovation -Productivity Paradox in India's Manufacturing Sector- An Analysis Using Innovation System Perspective**

K.J. Joseph and Kiran Kumar Kakarlapudi (Post Doctoral fellow, NRPPD)

This article is motivated by an apparent innovation productivity paradox in India wherein there has been a remarkable increase in the contribution of Total Factor Productivity Growth (TFPG) to output growth without a concomitant change in the factors that are commonly considered as instrumental in technological change. We approach this problem using the lens of learning economy, which is at the core of innovation system perspective. Drawing insights from the innovation system perspective, this paper analyses the relative role of science-based learning and experience-based learning in determining Total Factor Productivity (TFP) in India's manufacturing sector. Making use of the firm-level panel data from India's manufacturing sector for the period 2001–02 to 2016–17, TFP is estimated using semi-parametric method of Levinsohn–Petrin that accounts for the endogeneity bias in productivity estimation. Our results indicate that the science-based learning facilitated by interactions among actors within the country as represented by R&D, technology purchases and staff training have a significant role in determining productivity. The study also observed that experience-based learning mostly on account of interactions with actors outside the country indicated by participation in global value chains, outward and inward foreign direct investment do influence firms' productivity performance. Using the innovation system perspective, this study offers a few additional insights. We found that domestic technology purchases, staff training and participation in GVC along with overall institutional architecture (measured in terms of trade orientation, labour market regulations and product market regulations) play a significant role in productivity.

Status: Completed.

#### **47. Effect of R&D on Corporate Social Responsibility: Does Ownership Matter? Evidence from Indian Manufacturing Firms**

Ritika Jain

With the pressing emphasis on sustainability of production processes, green technology can be viewed as a tool for survival rather than a mere choice adopted voluntarily by firms. Green technology deals with two important strategies for a firm- corporate social responsibility (CSR) and research and development (R&D) activities. Resources spent on both these activities are strong drivers for gaining a competitive edge and hence enhancing financial and social performance (Hall, 1999; McWilliam and Siegel, 2001 and Padgett and Galan, 2010). The current study also contributes to the literature exploring the relationship between CSR and R&D expenses.

A firm making high investments in R&D may face high variations in profits due to the risky nature of R&D. This leads to an information asymmetry between various stakeholders and

the firm's managers with respect to the financial health and performance of the firm. In such situations, if firms actively practice CSR, they can limit capital constraints, reduce information asymmetries and hence satisfy various stakeholders such as suppliers, employees and customers. Thus, R&D intensive firms may have an incentive to invest in CSR. Similarly, a firm practising sustainable practices and moving towards a socially responsible behaviour may need to modify existing methods, devise new designs, products and processes to do so. These activities may demand extensive technology upgrading, advanced R&D and innovation. Thus, R&D investment spurs CSR efforts and the current study attempts to examine this.

While doing so, the study focuses on the role of state ownership in influencing this relationship. The rationale for state ownership stems from two main reasons. First of all, there is a difference in the objective functions of state-owned and private firms. While private firms are more focused and profit-oriented, state-owned firms mirror the objective of the government which shifts from the narrow paradigm of profit maximization and moves into the wider ambit of various social objectives such as avoiding price rises, providing employment to the masses, local area development and generating welfare. Thus, state-owned enterprises that coexist and operate as economic units alongside other private firms are easy tools available to the government to achieve these objectives. The second rationale for contrasting state ownership in the current context emerges from the nature of CSR and R&D activities. CSR, as a practice, mirrors the objective function of the government and R&D has been interpreted by Stiglitz (1999) as a public good. This implies that CSR as an added tool for meeting social objectives and provisioning of R&D will be better targeted if the enterprise is owned by the state itself. This would also have favourable implications for the relationship between CSR and R&D spending as compared to private ownership.

Against this background, the current study has two main objectives: (i) to examine if R&D spending positively affects CSR spending and (ii) to explore if this relationship is affected by state ownership. The study draws data for firms in selected industry categories of the Indian manufacturing sector. The rationale for selecting India is based upon the mixed economy framework of India. The manufacturing sector is characterized by co-existence of state-owned and private firms. Secondly, the Ministry of Corporate Affairs has introduced a huge policy action- the Companies Act, 2013. One major component of this Act was about a shift from voluntary CSR practice to mandated CSR practice based on certain financial criteria. The study spans from 2011 to 2016. The six-year period allows examining the impact of the Companies Act by considering three years before the Act (called as voluntary regime) and three years after the Act (called as mandatory regime). This policy action that affects CSR directly provides an interesting set up to examine the bidirectional relationship between state-owned and private firms. The study focuses on two specific industry groups- (1) chemicals and fertilizers and (2) rubber and plastic products. There are two main reasons for selecting these categories. First, these industry groups are two of the most polluting sectors, according to the government of India. Secondly, of the fifty-eight central government-owned enterprises that are listed on the stock market, thirty-three falls under these two industry groups.

The study tests both of the hypotheses by employing “double robustness” models, which combines propensity score matching methods with regression models to explore these relationships. Recognizing the endogeneity problem in the research design due to omitted variables as a result of some unobservable factors affecting CSR and R&D decisions as these are jointly determined and reverse causality between CSR and R&D decisions, the paper also uses an instrument variable approach. The dependent variable are CSR related decisions and lagged value of R&D spending is the main independent variable. The broad results confirm that high R&D spending spurs CSR spending. Further, the Companies Act has led to increased CSR spending in the mandated period as compared to the voluntary period but has no effect on R&D spending. Finally, state ownership is associated with high CSR spending and low R&D spending. To examine the differential impact of ownership on CSR and R&D relationship, the study considers interaction of state ownership with R&D spending. The results suggest that the effect of R&D on CSR spending is stronger for state-owned firms. This is in line with the government using state-owned enterprises as effective tools for meeting social objectives and providing public goods. Further, it is observed that the effect of the Act is stronger for private firms than state-owned firms. This is mainly because of the low CSR activities by private firms before the Act. Specifically, state-owned firms had already been spending high amounts on CSR even before the Act.

These results confirm the positive effect of R&D spending on CSR and the influence of state ownership on it. The study makes a contribution to two strands of literature. First of all, this is one of the first attempts to explore the effect of state ownership on the relation between CSR and R&D spending. Secondly, the relationship between CSR and R&D has received attention in the international literature but remains unexplored in the Indian context. Finally, the study makes an attempt in contributing to the literature on the impact of Companies Act on CSR spending in Indian firms.

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

#### **48. Ownership Effects on R&D Spending in India: Does External Borrowing Matter?**

Ritika Jain

State-owned enterprises (SOEs) act as economic units when they operate in industries alongside private firms. These enterprises have social objectives since they are owned by the government and economic objectives since they operate in industries. Research and development (R&D) are one of the strategies available to SOEs, which is a public good. Thus, against the multidimensional redistributive objective function of the government, R&D acts as a bridge between social and economic objectives of SOEs. The current study focuses on this particular feature for Indian public and private firms. Specifically, R&D expenditure by public sector enterprises and private sector enterprises listed on the National Stock Exchange is compared for 2015. The study employs propensity score matching and regression methods and finds that listed public sector enterprises spend more than the listed private sector enterprises in India. The study also suggests that external borrowing acts as a stronger tool to increase R&D spending for private firms more than the state-owned ones.

Status: *International Journal of Technological Learning, Innovation and Development*, 10(2), 159-175 (2018).

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

Ritika Jain

The role of state-owned enterprises (SOEs) is multidimensional and important in many countries (Götz and Jankowska, 2016). According to the OECD report (2012), SOEs in the OECD area are valued at near two trillion USD, employing 2.5% of the national population on average. In principle, these enterprises deviate from the narrow focus of profit maximization and cater to a host of social objectives that span across providing employment to the masses, reducing regional inequalities, investing in projects with long gestation periods and so on (Boycko et al., 1999). This makes performance of these enterprises to be driven by a hazy multidimensional objective function, which may imply performance complacency (Boycko et al., 1999). While there is large attention being given to the effect of state ownership on standard accountancy measures of firm performance such as profits, productivity and so on (Megginson, 2005; Gupta, 2005), there is a paucity of studies on examining innovation of state-owned enterprises.

Innovation, defined as the activities undertaken by a firm in introducing new products, marketing strategies, organizational practices and/or reducing costs in existing processes, has been identified as a conducive driver for profits. While private enterprises are driven by supernormal profits as the main motivation for investing in innovation, public sector enterprises have different reasons for engaging in innovation activities. First of all, as Stiglitz (1999) describes, innovation has a public good property making state ownership better than private ownership for avoiding underprovisioning. Secondly, limited focus on profits and profit variation makes SOEs better suited for a costly and risky activity as innovation. Finally, the widespread presence and network of public sector across various industry groups allows for a better coordinated and structured approach to innovation.

Against this background, the current study aims to study specific issues related to innovation in public sector enterprises. The aim of the study is not to contrast innovation activities by ownership, but to focus on innovation patterns in public sector enterprises. This study focuses on enterprises owned by the Central government of India for this context, better known as central public sector enterprises (CPSEs). The specific questions addressed are built on the premise that performance of an enterprise is not driven by firm-specific factors in isolation. In fact, it is a combination of internal and external factors that influence performance. These external factors that comprise of institutions, policies, political and economic environment shape the business conditions in which the enterprise operates. Indian CPSEs provide an excellent premise for the question in hand due to the federal nature of the Indian government. Despite being owned by the Central government, these CPSEs come under the jurisdiction of the state governments as it is the electricity tariffs, infrastructural quality and local factors (which are controlled by the state government) that shape performance.



The study uses two particular external factors that may affect innovation activities in CPSEs in India. First, as part of major reforms initiated in 1991, the Indian government adopted disinvestment, which is defined as the transfer of ownership in CPSEs from the government to the private sector. This policy, in the Indian context implied dilution of state ownership, which makes it a relevant policy to affect decisions and efforts related to provisioning of a public good such as innovation. Secondly, innovation as a strategy requires enterprises to have frequent and lengthy dealings and engagements with public officials for getting several licenses, permits and other bureaucratic complexities. This makes the local political environment particularly important for firms choosing to innovate. The current study focuses on crime related to corruption among public officials (such as bribes) in the state where the enterprise is located to capture local political corruption. Based on these, the specific objectives of the study are: (i) to examine the effect of disinvestment on innovation efforts in Indian CPSEs and (ii) to examine the effect of local political corruption on innovation efforts in Indian CPSEs.

The study develops two sets of hypotheses relating disinvestment and local political corruption to innovation efforts. The study draws data from multiple sources and covers all manufacturing CPSEs from 2007 to 2016. The study limits capturing innovation activities by focusing only on innovation efforts within a firm which is captured by R&D spending due to unavailability of data on innovation type and quality. Taking explicit account of the possible endogeneity between disinvestment and R&D spending due to unobservables and reverse causality, the study employs an instrument variable estimation methodology. The study uses two sets of dependent variables to capture different dimensions of innovation – the decision of investing in R&D activities as measured by a dummy variable and a transformed variable on the amount of R&D investment. Given the slow implementation of disinvestment policy in India (with only five firms being privatized), most of the transactions involve minuscule ownership transfer. To capture this feature of Indian disinvestment experience, the study uses two variables- share of private ownership in a CPSE and the time since the enterprise was selected for disinvestment for the first time. For capturing local political corruption, the study uses the number of people arrested for corruption-related cases involving public officials in a state (where the enterprise is located) per thousand population. The study also uses an interaction of this measure with incumbency of the state government in the most recent elections. Besides this, the study employs a host of firm-specific financial and profiling variables that may influence innovation investment decisions. Finally, the study uses dummy variables for year, industry and state-level unobserved effects.

The main findings of the study are as follows. Private share of ownership has a non-uniform impact on R&D possibility and amount. While it hampers the possibility of a firm to invest in R&D, it has no effect on the amount of R&D investment. Time since first-time disinvestment has a positive and significant impact on both R&D decision. The reverse sign of private share and time since disinvestment, given the minuscule dilution of ownership in Indian CPSEs, reflects that disinvestment does not have a permanent hampering effect on R&D decisions within CPSEs. The effect of local political corruption on R&D investment decisions is similar to the effect of disinvestment. High local political corruption in states

leads to lower R&D possibilities for CPSEs operating in that state, but it has no effect on R&D amount

Further, the negative effect of local political corruption is stronger in states that have the same party coming into power in the most recent state-level elections as compared to enterprises located in states that had a different party elected. This suggests that the effect of local corruption is strengthened when the party has longer years in office. Broadly, the results reflect an interesting pattern between decision to invest in R&D or not and the amount spent on R&D activities. While policy shocks such as disinvestment and external political environment has a strong bearing on the decision of the CPSE to engage in R&D or not, it has no effect on the amount spent. On the contrary, the amount of R&D is driven by firm-specific internal factors that capture the quality of labour- managerial influence, ratio of skilled workforce and non-unionisation of labor. Finally, the study also finds that the effect of both disinvestment and local political corruption on R&D investment is strongly conditioned by factors such as firm size, ratna status and ideologies of the state government where the enterprise is located.

The study makes an important contribution to the literature on R&D spending in public sector enterprises. The effect of partial privatization on R&D decisions has been explored in the context of developed countries, but studies on firms in developing countries remain scanty. Further, while there are abundant studies on the effect of corruption on profitability, productivity and export performance of firms, there is very sparse literature on how corruption affects innovation activities. The current study is one of the first efforts to examine the effect of corruption on R&D spending in public sector companies.

Status: Submitted to *Journal of Policy Modelling*.

## **50. Dimensions of India's Intellectual Property Right System, How Many Patents are Commercially Exploited in India?**

Sunil Mani

Recent discussions and events have shown that everything is not alright with the patent system not just in India but across the world including the USA which incidentally originated the patent system as an incentive for innovation and where the patent system is enshrined in her constitution (Economist, 2015). But is also generally held that most patents are never commercially exploited even by the patentee herself. Precise estimates of the percentage of patents that have actually been commercially exploited have not been compiled anywhere in the world as most patent laws across the world and the TRIPS Agreement which harmonised it does not have anything specific to state on the non-working of patents in the world. The U.S. Supreme Court, for instance, has consistently and adamantly held that patents do not require patentees to use or commercialise their inventions. Rather, patents simply grant inventors the right to exclude others from using or producing their inventions. That exclusive right, once granted, cannot be taken away because of a right holder's failure to work the patent (Tyler, Neil S, 2014).

However, in the West, there is now a movement in which patent holders are increasingly making voluntary public commitments to limit the enforcement and other exploitation of their patents. The movement is known as patent pledges, the best example of it is the FRAND (Fair, Reasonable and Non-Discriminatory) commitment, in which a patent holder commits to license patents to manufacturers of standardized products (Contreras and Jacob, 2017). Apart from technical standard-setting patent pledges have also been appearing in fields such as open-source software, green technology and the biosciences.

The literature that deals with this issue is the one on patent non-use and is almost entirely dominated by references to the non-use of patents in developed countries. Non-use of patents exacerbates litigation when patentees build “thickets” of strategic patents that cover little innovative progress and instead serve as a legal weapon to deter entry by new firms and thereby earn excessive monopoly profits (Shapiro 2001; Hall and Ziedonis 2001).

India is one of the few developing countries which have taken maximum advantage of the flexibilities provided in the TRIPS Agreement and has designed a patent law that is very conducive for incentivising innovations in the country. These flexibilities range from fully utilising the transition period of ten years to make its own patent regime TRIPS compliant to inserting a specific provision (namely Section 3(d)) for raising the bar on the inventiveness criteria for granting a patent in the case of pharmaceutical patents. In fact in the recent celebrated “Glivec case”, the supreme court of the country had invoked this specific section not to grant a patent for an anti-cancer drug developed by one of the largest pharmaceutical companies in the world.

Motivation for the paper is from three sources. First, we have been pointing out in our research (Mani and Nelson, 2013) that India’s patent regime is characterised by many dimensions like the pre and post-grant opposition to granting of patents, a higher bar on the criteria of inventiveness and on working of granted patents in India. However, we had not gone into the implementation aspects of these laudable characteristics. Beginning with the present study, we are analysing in detail these dimensions one at a time. Second, very recently a writ petition was filed by one of India’s leading activists in the realm of IPR laws, Shamnad Basheer before the Delhi High Court highlighting glaring non-compliance of the Patent Act 1970 by the Indian Patent Office. The writ petition and the court order has prompted the Indian Patent Office to elicit responses from all stakeholders with respect to framing rules for implementing the provisions of the Patent Act with respect to working of patents. Third, there has been a small but growing literature on the issue of non-use of patents. Most of this literature is in the context of the USA where non-working of patents is legally sanctioned. But there are two recent papers in the Indian case that are spot on the no-use of patents. The first one by Chaudhuri (2014) found that only 12.6 per cent of the patented products by MNCs, for which the requisite data were available, were commercially exploited in the country. Further, only less than percent of these were actually manufactured in India, while these MNC patentees imported the rest to the country. Chaudhuri also noted that Form 27 was inadequately filled in reported with practically no required information. The second and more recent study deals with the issues on non-use of patents in the Indian case by

analysing in detail working of patents granted by the Indian patent office in the case of mobile devices (Contreras, Lakshane and Lewis, 2017). The present paper adds to this literature and will serve as a survey of issues on the topic.

The paper is organised as follows. Section 2 maps out the provisions of India's Patent Act 1970 dealing with the non-use of patents, including the penalties that are imposed on erring patentees who choose not to comply with these stringent provisions. Section 3 works out the extent of non-compliance of this important provision. Section 4 discusses the legal intervention in this non-compliance, which took place recently, summarises government's response to the legal verdict and also marshals the comments received from various stakeholders. Section 5 concludes the paper and speculates on the way forward.

India has a unique law with respect to the granting of patents. It is one of the few developing countries, which have taken advantage of several flexibilities built into the TRIPS agreement. It is also perhaps the only country in the world having an explicit requirement for patents to be worked within its territory within a reasonable period of it being granted. This policy on working of a patent makes it a real indicator of innovation and the economy and society benefiting as a result of the new invention. If there is no requirement for working of a patent, it becomes a mere entry deterring strategy by incumbent firms and in some cases the existence of patent thickets can actually reduce the number of new innovations. So it is only prudent that the government continues with the policy on working of patents. In fact the introduction of a patent box in the Finance Bill of 2016-17, a new tax regime has been created whereby income earned by a qualifying taxpayer from the exploitation of a patent would be taxed at a preferential rate of 10%. No deduction of any expenditure or allowance would be allowed in computing the income under this regime, and the income qualifying for the preferential rate should be by way of royalty in respect of a patent developed in India. This should encourage not only domestic companies but also foreign companies to commercially exploit patents that are developed in the country. However, based on the submissions by a large number of stakeholders, the IPO may consider simplifying the reporting under Form 27 so that it becomes a credible policy. Companies securing a compulsory license must also report the working of the license. On this crucial issue, the country must not buckle under the pressure from any quarter, domestic or foreign<sup>8</sup>, in diluting the unique provisions of India's patent laws.

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<sup>8</sup> Various agencies, both government and private, from the United States has been lobbying hard to get many of the unique provisions of India's IPR laws repealed or watered down. The civil society organization, *Medecins Sans Frontiers* have compiled a timeline of US Attacks on India's Patent Laws and Generic Competition between 2012- 2014. During this time, the US agencies tried more than 40 times to influence a change or amendment to India's Patent Laws and Rules so that it is rid of provisions like "working of patents" and "Section 3(d)". See *Medecins Sans Frontiers* (2015). See also Mani (2014) and Mani (2016).

## RESEARCH PROJECTS

### *Completed Projects*

#### **51. IPR Regime and IP Asset Intensive Industries**

P.L. Beena and Siddiq Rabiyyath (Assistant Professor, Economics Department, Kerala University)

*Sponsor:* ICAE, Kerala University

A different strand of literature put a different view on IPR on innovation and profitability or growth and competitiveness of the firm vis a vis innovation by firms under IPR. For instance, Grossman and Helpman (1991) showed that stronger protection or production subsidies would lead to a fall in global technical innovation rate. Similar to this, the work of Boldrin and Levine (2013) review that innovation historically (19<sup>th</sup> and 20<sup>th</sup> Century) been curtailed by patent and copyright. However, the evidence-based on the cross-country panel data on R&D investment, patent protection and other country-specific characteristics covering the period 1981-95, indicated that strong IPR has a positive effect on R&D investment and it encourages innovation (Kanwar and Evenson, 2003; Colson, 2001 and Mani and Nelson 2013). Bessen and Maskin (2000) showed that stronger protection would limit imitation and thereby inhibit technological change if innovation is sequential and complementary as in certain industries like software, semiconductors and computers. Falvey et al. (2006) argued that middle-income countries do not benefit from stronger IPR regimes like high and low-income countries as the positive effects from FDI and trade get offset by the negative effects due to inability by middle-income countries to imitate and use knowledge. TRIPS can also impose a lot of additional costs on developing countries in the forms of increased royalty payments, even the theft of traditional knowledge and abuse of dominance (Chang, 2003; Fabre, 2015). In the flip side, analysis on the impact of patent regime on innovation based on successful patent applications in US covering 33 years in a study by Qiu and Yu (2010) argued that US market is sufficiently grown and profitable too, so that it could provide innovation incentives and strengthening of IPR would only increase the US innovators' rent but not innovation per se. In the context of developing countries, it was argued that trademarks and similar protection are important for traditional artists and communities that create products which can also reflect their culture and social identities (Cohan 2014). It is further argued that design rights, industrial design rights, copyrights, patents and trademarks could be useful for small firms operating in industries such as textile, toy, publishing, biotechnology and retail industries (Chaudhuri, Goldberg, and Jia 2003; WIPO 2006 as cited in Singh 2015, p.147).

The inferences are in fact fascinating with other findings of an earlier review that despite its direct ill effect on innovation, the profitability and competency of the firms had improved drastically due to IPR which naturally increase the urge of getting IPR by firms and individuals. The observation makes us hypothesize that firms which are filing for IPR expect a higher profitability than their urge for improving future innovation. The observation guides us to make our theoretical proposition that institution driven

monopoly or protection based expected income lead a firm to go for IPR. The result is an edge in the industry. Such an edge by an industry is antithetical to the view that patent improves the innovation which attributes to higher competitiveness and resultant profitability. The principle which leads us to make such a proposition is the new institutional framework, which often offers us to understand economic interaction through the lens of institutions, where the market is one of the institutions, which guide or facilitate the economic activity<sup>9</sup>. In a nutshell, the performance of firms under real-world economic situation mostly driven by institution rather than market mechanism per se.

The report is divided into five chapters, including introduction and conclusion. Our analysis reveals that the number of patents, trademarks and Designs received by Indian industries are proportionately increasing especially during post-IPR regime. Interestingly, though Drugs and Food industries ranked top in terms of a number of trademark applications, trademark intensity of these industries are lower than Patent intensity as compared to the rest of the industries. Although the overall number of patent applications and granted has increased in India especially during the post-IPR regime, most of these patents are secured by foreign firms located in India. The pattern is different in the case of Design and trademark application since the major share of such assets are controlled by Indian firms. The study further observed that relatively large number of private players in the Drug and Pharma industry managed to secure more number of patents during post-IPR regime as compared to 1976-2007 although CSIR still controls a major share of patents granted in India. The study further argues that patent or trademark intensive industries are spending more on technological, skill formation and marketing activities which are measured in terms of various indicators. The study further observed that major share of market is controlled by few firms across all sample industries. For instance, out of 182 listed Drugs and pharmaceutical firms that listed in PROWESS data base, top ten firms control almost 50 per cent of total sales. Lupin, Aurobinda, Dr. Reddy, Cipla, Glenmark, Sun Pharma and Intas are the leading firms in the Drug formulation industry. Out of 221 sample firms listed in the Computer and Electronics industry (26), top five firms control almost two-third of total sales in this industry. Samsung India Electronics Pvt. Ltd controls 32 per cent of market share as on 2018. Videocon is the second leader in this industry which controls 12 per cent of total production of Computer and Electronics industry. Bharat Electronics, which is a Central public sector unit, controls another 7.5 per cent of total production in this industry. While Samsung found to be the leader of Mobile phones/Cellular phone, Videocon controls the market of Television receivers. Intex Technology (India) Ltd ranked the second position in the Mobile phones/Cellular phone which controls only 6 per cent of total market of Computer and Electronics industry. Out of total twenty-five firms listed in the Software industry, the top five firms control 70 per cent of total production. While Batronics India Ltd controls 15 per cent of total software industry, Virtual Galaxy Infotech controls another 13 per cent. KPIT Ltd (13%) and MSC Software Corporation (10%) ranked third and fourth in the list. Out of fifteen firms listed in the Telecommunication industry, two top firms such as Indus Towers and Bharti Infratel which belong to Bharati group control

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<sup>9</sup> Empirical and theoretical works of Douglas C North (1981, 1990), Elhanan Helpman (2008), Daron Acemoglu, Simon Johnson, and James Robinson (2005) Kenneth Dam (2005) et al are a few in this line.

97 per cent of total sales in this industry. These firms mainly control wireless infrastructure industry.

Firm-level analysis on R&D expenditure, Marketing expenditure and number of patents clearly reveals that the leading firms in the respective industry are active in securing more IP assets such as patents, trademarks or designs. Those firms do spend relatively more on R&D and marketing activities as compared to their industry average. For instance, R&D institute of Samsung has registered maximum number of patent applications in the IT sector in 2015-16. While IBM inventors from India receive 800 patents, KPIT filed 58 patents, Out of this, 25 patents are for automotive engineering solutions which is specialized by this firm<sup>10</sup>. MSC software is also a world leader in helping product manufacturers to advance their engineering methods with simulation software and services. US patent was granted to the products of MSC software. Batronics India receives three patents on new Ribbon copies for RFID. This firm specializes on IT services and Business solution. This is also a leading Automatic Identification and Data Collection (AIDC) provider in India. Most of the top 25 patent assignees such as Cipla, Cadila Healthcare, Mylan Laboratories etc. did not have a single patent to their credit up to 2007.

The study further argues that the IP asset-intensive industries and the leading firms in those respective industries are gaining better monopoly profit during post-IPR regime. These industries were also doing well in terms of export intensity. The improvement in the wage component in the Drugs & Pharmaceutical industry and Software industry indicate that these industries are spending more on skill formation. It is further evident that two of the sample industries such as Drugs & Pharma and Electronics & Computer performed much better during the post-IPR regime (i.e., 2006-2016) in terms of growth of employment, output, value-added and profitability. We could not carry out such exercise for Telecommunications and Software since ASI does not provide representative data on service sectors. Better growth pattern in employment during post-IPR regime does indicate that product patent regime can generate more employment as compared to the process patent regime as suggested by Edquist et al. (2001). However, the impact of such asset creation on the market structure, pricing and abuse of dominance in the case of Drugs and Pharmaceutical industry in India indicates a discouraging trend (Choudhuri 2018; 2019). Finally, the paper argues that the legal and extralegal institutions are a precursor of having economic production and exchange. For instance, the role of intellectual property Right in terms of patent, trademark, designs, copyrights, trade secrets etc. to make a firm or industry competitive in the market environment is by and large an institutionally guarded process.

Status: Project Report submitted to the Inter-University Centre for Alternative Economics, Kerala University. Plan to publish in the International journal.

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<sup>10</sup> <https://www.fundsindia.com/blog/wp-content/uploads/2016/05/Research-Report-KPIT-Technologie>

## *Ongoing Projects*

### **52. The State and the Maintenance of Agro Biodiversity in Kerala**

Sunil Mani, V. Santhakumar (Azim Premji University) and T. Abhilash

*Sponsor:* FAO India

Kerala is one of the most biodiverse states in the country. It is home to several kinds of flora and fauna and is also home to one of the 18-biodiverse hotspots in the world, namely the Western Ghats. Kerala has started creating an institutional form for implementing the biodiversity rules by establishing Biodiversity Management Committees in all the LSGs beginning with the year 2008. By 2015, it has managed to form BMCs in all its LSGs. The megafloods of August 2018 seemed to have seriously affected the biodiversity of the state. The KSBB has drawn up a three-pronged strategy to address the impact of the floods on the ecology and biodiversity of the State. The rapid assessment is to be followed by a chain study to understand how the disaster has affected various ecosystems. The third part of the strategy will focus on developing a long-term action plan for ecological restoration. Overall in both India and Kerala, the share of agriculture in the nation and state's economy has been declining.

One of the most important components of the Biodiversity strategy is the preparation of People's Biodiversity Register (PBR). PBRs document folk knowledge of status, uses, history, ongoing changes and forces driving changes in biodiversity resources, gainers and losers in these processes and people's perceptions of how these resources should be managed. A number of PBRs have been prepared in different parts of India beginning 1995 through initiatives of NGOs and educational institutions working with local communities and village councils. These attempts have been motivated by a desire to promote decentralised systems of management of natural resources and to create the basis for equitable sharing of benefits of commercial utilisation of folk knowledge of uses of biodiversity. Kerala has one of the best records with respect to preparation of PBRs as about 85 per cent of the BMCs have prepared PBRs.

First is the formation of BMCs. The Status of BMCs, As on January 4, 2019 BMCs are constituted in **941** Grama panchayats, 87 Municipalities and **6** Corporations – a total of 1043 BMCs constituted. The BMCs prepare PBRs. According to the Biodiversity Board (as on January 4, 2019), 64 local self-governments are yet to prepare PBRs. The maximum numbers of panchayats not having prepared PBRs so far are in the districts of Palghat and Malappuram. On the other end, the districts of Kollam, Pathanamthitta and Wayanad have 100 per cent success. Biodiversity Act stipulates that “the main function of the BMC is to prepare People's Biodiversity Register in consultation with local people.

The Register shall contain comprehensive information on availability and knowledge of local biological resources, their medicinal or any other use or any other traditional knowledge associated with them.” Although Kerala's LSGs have a good record in forming BMCs and preparing PBRs, it remains to be seen if the PBR's are properly



framed and the data contained in PBRs are subjected to an annual review to see if the bio diversity that exists in an LSG is maintained.

In this study, we are primarily concerned with evaluating the policies favouring agrobiodiversity in Kerala and then making an objective assessment of the degree to which Kerala is biodiverse. .

### *Policies Favouring Agro Biodiversity in Kerala*

- a. Those dealing directly with agro biodiversity:
  - Kerala State Biodiversity Rules, 2008
  - Kerala Environmental Policy, 2009
  - *Jaivam 2017*
- b. Those dealing with agro biodiversity in an indirect manner
  - Kerala State Organic Farming Policy, Strategy and Action Plan, 2007
  - Agricultural Development Policy 2015
- B. Knowledge related issues which has a bearing on agrobiodiversity:
  - Intellectual Property Rights Policy for Kerala, 2008
  - Protection of Plant Varieties and Farmers Right of (PV&FR ) Act, 2001 & registration of Farmers' Varieties
  - State experience with GI Act, 1999
  - Traditional Knowledge Protection Bill, 2016
  - *State position on national laws, such as Seed Bill*
- C. Towards a Biodiversity Index for Kerala

The need to have an organic policy within Kerala is visualized in Biodiversity Strategy and Action Plan of the state. The stated purpose of the policy is 'to protect its rich biodiversity and thus sustain various livelihoods dependent on this precious resource'. In that sense, the connection between the protection of agro-biodiversity and organic farming is envisaged before the formulation of this policy. The policy notes the reality that the intensity of inorganic agriculture in Kerala is not that high and hence have the potential to move towards organic farming.

Further, the policy notes 'the positive side of agriculture in Kerala in terms of the already low levels of consumption of hazardous chemicals and, therefore, chances of redeeming farmers to organic agriculture are quite high' (p.5). This is an interesting connection that should have been analyzed deeply, and it would have given insights on the disincentives to use chemicals in Kerala. Such an understanding may help to design the incentives to move towards organic farming within the state.

In the policy, a farmer is defined as 'Organic Farmer' 'provided he/she adheres to and practices the following *three essentialities* of organic farming: (1) a farmer who practices mixed farming including food crops; (2) a farmer who ensures the conservation of soil and water; (3) a farmer who conserves the biodiversity of the farmland'. The

conventional idea of avoiding chemical fertilizers and pesticides as the core-focus of organic farming is given less importance here. The definition of organic farming itself is connected to the preservation of agro-biodiversity.

However, the organic farming policy has not analyzed the economic incentives of the farmers to move towards organic farming policy. It has not outlined the ways by which the state has to encourage farmers to move towards organic farming overriding the economic incentives, if any, to continue with non-organic farming. It has not assessed the costs that the government has to bear in facilitating the shift towards an organic policy. It has not outlined the administrative mechanisms beyond outlining the nature of a state-level committee for the purpose.

The organic farming policy has not analyzed the existing state and central policies in agriculture that may work against the shift towards organic farming. These may include the subsidies for fertilizers. Some of these policies cannot be changed by the state government. Certain policies that prevail at the national level (say subsidy for fertilizers) may benefit Kerala too since it has to import food grains from other states which practice chemical agriculture. These ambiguities may reduce the effectiveness of an organic farming policy within Kerala and hence may work against the shift towards an agro-biodiversity enhancing agriculture within the state

The shift towards an organic farming policy also depends on the consumers or buyers of agricultural products. The analysis of this aspect and the strategies required in this domain are weak in the policy. It sees farming mostly from the perspective of supply. This is problematic when we see that a major part of the consumption of agricultural products within Kerala is imported from other states. There may be a possibility of developing an interest among Kerala consumers in organic products, but that may not be adequate. It may be that a part of the organic production in Kerala should be able to meet the needs of national/international markets. (In fact, the integration of Kerala's agriculture with the national and global markets is much higher compared to that of other states, and this has been the situation historically, and not due to the current phase of globalization.) There may be a need to use national and global markets to facilitate the shift towards organic farming within Kerala.

This may be not be facilitated by the rhetorical arguments for self-sufficiency and against trade given in the beginning of this policy. These too may add to the ambiguities of the policy and reduce its effectiveness in enhancing/protecting agro-biodiversity.

*Jaivam*, Mahatma Gandhi University's (MGU's) organic farm drive, is for transforming one of the 14 districts, namely Kottayam district into a 100 percent literate district in organic farming in cooperation with National Service Scheme, *Kerala Jaiva Karshaka Samiti*, academic departments of the university and *Kudumbashree* units. The main aim of the project is to make each family member of the district literate about organic farming. As part of this, the trained volunteers would visit 4, 87,296 households in 71 panchayats and 6 municipalities in the district. The volunteers would interact with the 1.97 million people in the district to adopt ethical organic practices to enrich the soil and

preserve the environment for a healthy generation. It was inaugurated on August 29 2017. The project is implemented through the National Service Scheme (NSS) units in its affiliated colleges.

The next policy having a bearing on agro biodiversity is the agricultural development policy 2015 of the state. The policy has 46 sub-policies. Although none of these are specific about biodiversity despite the fact that one of the much asserted objectives of the policy is to make “Kerala a *biodiversity paradise*”. However, we have identified ten sub-policies that have the potential to either support agro biodiversity or have a negative impact on it. Of the 19, 9 have a positive impact, and one may have a negative impact

A still another policy having a bearing on biodiversity is the Intellectual Property Right Policy of the state. This policy is formulated within the provisions of Indian Patents Act and Biological Diversity Act, 2002. However, the focus is on what it calls ‘traditional knowledge’. The main purpose of the policy is to create legal property rights on such knowledge to avoid ‘misappropriation’ by corporate and capitalist enterprises. We need to think theoretically about the potential of such a ‘legal right’ on traditional knowledge on the conservation of agro-biodiversity. It may be better to compare a ‘with’ and ‘without’ situation here. We may consider a legal right useful for the protection of agro-biodiversity, if there is an actual or probable under-use of traditional knowledge, and a decline in the use of the diverse variety of genetic, plants and animal varieties, and hence there is a decline in the effort to conserve/protect these varieties, in the absence of the legal right, and if the newly instituted right can reverse the trend. We need to evaluate the ‘Intellectual Property Rights Policy of Kerala’ with such a perspective.

Based on this perspective, we see only one clause (No.6) directly contributing to the conservation of agro-biodiversity. This is the one which entrusts with KTKA (Kerala Traditional Knowledge Authority) the responsibility to carry out promotional activities such as the formation of ‘traditional knowledge cooperatives in order to enable such users to access larger markets for their practices and products’. Such an access to larger markets may enhance the incentives to use traditional knowledge and hence preserve agro-biodiversity (as long as it is required for the use of such knowledge).

#### *Extent of Agro Biodiversity in Kerala*

It is essential that we have a summary measure to quantify the extent of agro biodiversity and its changes over time. Ideally speaking, it should be constructed at the level of the BMC. But detailed data for such quantification at the BMC level is hard to come by, but the KSBB may develop it. As a first step, we compute the area of those agricultural crops that allow intercropping with other crops. The share of the area under such biodiverse crops in the total cropped area is computed. It shows that about 70 per cent of the cropped area in the states is under biodiverse crops, and it has not shown many changes over time. This is despite the fact that – Natural Rubber- one of the main mono-crops in the state has increased its share of the cropped area.

Status: Ongoing, expected date of completion: August 31, 2019.

## *New Initiatives*

### **53. The Growth and Emergence of Trade and Investment in Intangibles in India**

Sunil Mani

Recently one of India's private airliners was on the verge of bankruptcy and was put on the market for sale. The firm had very little capital assets as most of the aircraft that it was using was leased in. But the firm's valuation was largely based on its brand image and its frequent flier programme, Jet Privilege. Jet Airways (India) Ltd said it would monetize its 49 per cent stake in Jet Privilege Pvt. Ltd, the frequent-flyer loyalty programme subsidiary. News reports suggest the associate company will be valued at ₹ 3,000-4,000 crore. While Jet Airways' market capitalisation is about ₹ 3,000 crore. This shows that the intangible asset possessed by the firm is as valuable as the main firm itself. Worldwide there has been a great interest in the growth of intangible investment and trade. Even in India, the National Accounts Statistics, while reporting the Gross Fixed Capital Formation of private corporate sector by type of assets have started presenting investments in terms of intangible assets. Further, recent trends in India's current account also showed that a number of intangible items such as telecommunications services, computer software services, information services, R&D services, professional and management consultancy services, technical trade-related and other business services and charges for the use of intellectual property etc. has been increasing. So the purpose of the study is to quantify the growth in investment and trade in intangibles as far as India is concerned.

Status: New Initiative.

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

Sunil Mani

India has the second-largest subscriber base for telephones and the second-highest number of Internet users in the world. Over 98 per cent of the telecom subscribers use mobile phones for not just voice calls but for data transmission as well. However, given the fact that India has no major domestic mobile phone manufacturers, this growth in demand has been serviced through imports of mobile phones from abroad. Increased imports of mobile phones have contributed to a widening of India's trade deficit. In order to reverse this, the government has put in place a number of policy instruments to incentivize the domestic manufacturing of mobile phones. The paper undertakes a critical analysis of the empirical evidence available to see how far this policy has succeeded in creating and growing a domestic mobile phone manufacturing industry. The ensuing analysis shows that there has been indeed a spike in domestic manufacturing of mobile phones leading to significant reductions in its imports. However, it is also shown that the domestically manufactured phones are dependent, crucially, on imports of parts making the industry highly import-dependent. This high import dependence itself is actually a logical outcome of the weak innovation capability in the domestic industry. The analysis once again shows that history does matter in developing technological capability in high technology industries. A mere increase in domestic manufacturing need not necessarily

be construed as an increase in technological capability. And technological capability is not a trait that can be built overnight but will have to be assiduously built over a period of time through systematic investments in domestic R&D so that the firms and institutions have the ability to keep pace with changes in the particular technological domain in which they are operating.

Status: New Initiative.

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

### ***Completed Studies***

#### **55. Job Reservations, Disinvestment and Firm Performance among Indian Public Sector Enterprises**

Ritika Jain and Vinoj Abraham

Job reservations, aimed at social empowerment of the marginalized communities, have been in place in India since pre-independence period. In the post-independence period, the first amendment to the Indian Constitution in 1951 empowered the state to make advancement of socially and economically backward classes based on which job reservations were introduced to populations belonging to Scheduled Castes and Scheduled Tribes in all central and state public services and enterprises. Following the Mandal commission report in 1979 reservations were extended to the Other Backward Classes as well in 1991.

Though job reservations had been in place since 1951, a recurrent question that has taken centre stage had been that reservations discredit ‘merit’ and acts as a disincentive against the unreserved category of the population. The argument is mainly focused on the issue of ‘efficiency’, wherein establishments that implemented reservation policies would function at sub-optimal levels as the establishment’s choice of inputs from the market is limited. Further, to the extent that the ‘meritorious’ are excluded from such jobs, it would lead to excess supply of the ‘meritorious’ in the labour market, leading to inefficient labour markets as well. This argument is reflected in a number of articles, court cases against reservations, popular movements, and so on.

For instance, Guha (1990) identified at least four arenas through which reservations impair efficiency. “Firstly, the replacement of the more meritorious by, the lesser. Secondly, Caste rivalries develop within every institution making smooth team-work and harmonious functioning impossible. Thirdly, the loss in efficiency of the public sector impairs the working of the private. Finally, the assertion that reservation in jobs would ensure that the educationally backward would achieve efficiency is flawed as there is no incentive for them to improve their efficiency”.

While the debate on reservations and its effect had been mounting for some time in India, since the 1990s, the economic role of the government itself had seen a marked shift. The government from being an active producer of goods and services in the country had been gradually reshaping itself, through various structural reforms, to that of a regulator and facilitator of productive activities, by and large leaving the market space to the private

sector. This shift in policy had, in turn, led to a relative shrinkage in the role of government. This shrinking space of the government is most glaringly visible in the case of public sector enterprises.

At the throes of liberalization in 1991, a large number of Public sector enterprises were loss-making enterprises, arguably owing to inefficient management of the sector. Owing to the fact that a large number of PSEs were loss-making and inefficient, the government embarked on a privatization policy. The privatization attempted was through a gradual disinvestment policy rather than outright sale to the private sector. The privatization of PSEs, on the assumption that firms would turn to become efficient, is based on the premise that firms would now be able to rationalize factor use to become profitable.

A key form of rationalization, apart from altering the production function to suit greater capital intensity, would be to change the composition of labour use. Majorly disinvested firms may now be able to alter the composition of workers, though hiring and firing of workers are still regulated through the existing labour market regulations. The newer employees of the firm may now be hired on the basis of perceived 'merit', and hitherto reserved jobs may now be open to all. Moreover, the basis of mobility of employees within the firms may also be associated to the performance of the employees. Given this view, the firms would now be able to alter the employee composition in the firms as well, in so far that the firm perceives that there exists caste-based factors that affect firm performance. Jodhka and Newman (2010) had argued that appointments in modern Indian firms were seemingly fixated on the 'merit' argument, who posed that firms in the competitive global environment cannot survive on conventional modes of social network-based recruitments. However, they do show that behind the veneer of the argument of merit is a search for family ties, social position and other indicators that pointed to caste-based recruitment practices.

We analyse the validity of the arguments that stands against reservations, namely, do reservations lead to inefficient firm performance? In the context of disinvestment of PSEs in India, this question can be further divided into the following: Do firms, in reality, alter the caste composition of employment during disinvestment? And do such rationalization strategies produce the desired outcome in terms of firm efficiency? Since job reservations in India are implemented only in the public sector, we analyse the effect of job reservations on performance of one of the largest public sector employer, the public sector enterprises (PSEs) in India.

The study employs data on manufacturing central government-owned, state-owned enterprises in India, known as central public sector enterprises (CPSEs) between 2013 and 2016. Three performance indicators are used to capture the multidimensional objective function of CPSEs. An important observation is the distinction between diversity of workforce and blind reservation ratios. The study uses a measure of diversity that is defined at the various levels and grades within the organization. Using instrument variable estimation technique, the study focuses on the effect of disinvestment and reservation measures on firm performance. The study finds that reserved employees are piled at the bottom grades of employment. Due to this, the reservation ratios may be high in these

enterprises but with no diversity. As a result, reservation ratios have a negative effect on firm performance. In contrast, firms which take care of the diversity of social categories across all grades of employment are better performing due to smooth functioning, better coordination and healthy workforce environment. To delve deeper into the issue, the study also uses various parliamentary committee reports on various CPSEs to examine the reasons for the skewness in reserved category employees at the lower level. It is found that absence of diversity at the board levels, under-broadcasting of national communication platforms such as All India Radio, pending court cases and discrimination in within-firm training programs are some of the reasons which hinder reserved category employees from climbing up the ladder through promotion. The study also finds that disinvestment has a positive effect on firm performance with a great emphasis on the distinction between ownership transfer and control transfer.

Status: Completed.

## **56. Effect of Education-Occupation Mismatch on Wages in India**

Udaya Shankar Mishra and Banantika Dutta (IIM, Bangalore)

This paper investigates the effect of educational levels on wages across different occupational groups. The existing literature relating to this topic concludes that returns to surplus-schooling are less than that of ideal level of schooling required for a job. This observation is not in accordance with the theory of human capital. Many authors observe that workers who are over-educated for a job are paid less than their counterparts (with ideal education level) who are in a job for which they are adequately educated. However, such observations are limited to developed countries and have not been empirically validated in the case of developing countries. Thus, this is an attempt towards analysing the effect of education, especially over-education as regards its bearing on wages in the Indian labour market. This study delves deeper into unfolding the education-wage nexus within each of the seven occupational groups defined for this study. Realised Matches (RM) method is used for calculating the over and under-educated for each occupational group. It is found that there is an agreement with human capital theory among all occupational categories in India.

Status: Completed.

## **57. Jobless Growth or Structural Transformation in India?**

Vinoj Abraham

Literature on jobless growth in India had, by and large, argued that increasing capital and technology intensity as the main causes for such a growth pattern. However, there is hardly any literature which views fall in employment as the inherent process of an economy undergoing structural transformation. The purpose of this paper is to examine the role of structural change in explaining the decline in employment growth. This paper uses decomposition techniques to isolate the employment effect, productivity effect and demographic effect on output growth per capita. The tool captures the effects of inter-sectoral mobility of workers and productivity changes, which are essential features of structural change. This paper shows that the decline in employment growth in India is mainly due to the withdrawal of women from the labour market owing to the structural

transformation in the economy. The paper provides evidence for structural transformation in the classical manner, which consists of inter-sectoral movement of labour and intra-sectoral productivity growth. However, the process is slow, and the construction sector acts as the employer of the surplus-labour in the economy. This paper brings in a new perspective on the debate on jobless growth focusing on structural transformation and women's withdrawal from labour market.

Status: Completed.

### **58. 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 have undergone a transformation whereby the share of agricultural employment has gradually declined. This paper argues that jobless growth in India could perhaps be understood better within broad contours of structural transformation. Jobless growth in the 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 for the period 1993-94 to 2011-12 evidence is provided towards, intersectoral 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: Completed.

### **59. Towards Enhancing The Effectiveness Of Minimum Wage Systems: The Wage Protection System In Kerala**

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

Effective minimum wage systems are considered as pivotal to counter the prevailing and persisting tendencies such as wage inequality, gender wage gaps and informality. It is also widely acknowledged that a well-functioning minimum wage system can enhance the purchasing power of the economy and thereby stimulate domestic sources of growth. Accordingly, new and innovative policies are being formulated and existing policies are being realigned in many countries to enhance the efficacy of the minimum wage systems. This paper focuses on a recent policy initiative, launched by the state of Kerala in India, which is aimed at ensuring wage protection to workers, including those engaged in informal sector activities. The wage protection system of Kerala, apart from bringing about the requisite institutional changes to the legislations governing the minimum wages also uses the potential of the information technology to ensure transparency in wage transactions, and inspection systems governing minimum wage laws.

Status: Published in *Labour and Development*, Vol. 25, No. 2, December, 2018.



## **60. Labour Market Institutions and New Technology: The Case of Employment Service in India, Indian Journal of Labour Economics**

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

This paper traces the evolutionary history of labour market intermediation in India, culminating in the introduction of the National Career Services, an Information Technology-based career service ecosystem. Further, it analyses the performance of the NCS and the challenges therein. Traditional labour markets functioning under asymmetric information had worked under institutional norms and practices that reduced the search-and-match costs in the labour market. While these norms solved the problems of search, these were neither efficient nor just outcomes. Formal institutional interventions in the colonial period were aimed at the need for war exigencies. Post-independence, an elaborate and decentralised system of labour market intermediation, was established through employment exchanges across the country. However, employment exchanges, after their initial successes, gradually weakened. Structural infirmities associated with employment exchanges, alternative agencies, both public and private for meeting the intermediation needs, the declining role of government as a key employer and changing nature of labour market were key factors that affected the performance of employment exchanges. A major restructuring of the employment service, through the NCS ecosystem, promises a revival of the public-funded labour market intermediation services. However, the challenge lies in the NCS, becoming an efficient intermediary that is both inclusive and accountable.

Status: Published in *Indian Journal of Labour Economics*., 61: 453.  
[https://doi.org/10.1007/s41027-018-0144-1\(2018\)](https://doi.org/10.1007/s41027-018-0144-1(2018)).

## **61. MGNREGS: Political Economy, Local Governance and Asset Creation in South Indian States**

Vinoj Abraham

MGNREGS, the premier centrally-sponsored national rural livelihood scheme, is one of the most elaborately designed and implemented public workfare programmes in India. While a large number of studies have analysed the progress of employment creation under the scheme, very few have looked into the equally important issue of rural asset creation under the scheme.

The scheme is centrally sponsored, and the broad guidelines are centrally designed, yet the interpretation and implementation of the scheme is subject to local-level governance capacity, governance structure and regional political economy. Evidence based on a primary survey across the four southern states, viz., Andhra Pradesh (erstwhile), Tamil Nadu, Karnataka and Kerala show that the design of the scheme for asset creation is subject to considerably varied interpretations at the regional and sub-regional levels anchored on the above factors. Further, the type of projects selected and created, extent and nature of expenditure incurred, quality of assets created and maintenance of assets were considerably affected by the structures of local governance, the interaction between

the political class and the local governments; and the local manifestations of class-caste dynamics.

Status: Chapter in an edited volume by Madhusudan Bhattarai, P.K. Viswanathan, Rudra N. Mishra, Cynthia Bantilan titled *MGNREGS in India*.

### ***Ongoing Studies***

#### **62. Skilled-unskilled Wage-gap in Indian Manufacturing: Some Explorations**

Sunandan Ghosh, Simontini Das (Rabindra Bharati University) and Saikat Sinharoy (Jadavpur University, Kolkata)

This study investigates into analyzing the pattern and determinants of skilled-unskilled wage gap in Indian manufacturing during 2008-09 – 2012-13. Skilled-unskilled wage gap has not only increased in Indian manufacturing during post reforms; it has been a global phenomenon during globalization. Economic theory, coupled with empirical evidence, has identified international trade, skill-biased technological progress, among other factors, are the main sources of skilled-unskilled wage gap. Using Annual Survey Industry (ASI) unit level records, and controlling for various other factors including export share and imported input use, the quantile regression estimates show that export orientation and imported input use have a positive and statistically significant impact on the wage gap, with imported inputs having a stronger effect. However, there is evidence of a decline in the wage gap over time for the lower quantiles. The results have important implications for policy

Status: Ongoing.

#### **63. Transformation of Rural Households in Economic Activities and Employment**

Vinoj Abraham

The rural economy in India has been witnessing a transformation. The transformation has two important dimensions; one is economic and other social. The economic transformation is in terms of a shift in the economic activities undertaken, and the social is a shift in the social roles played by members of the rural society. The shift to non-agriculture sector employment is mainly in case of males while for females though the agricultural employment declined and the corresponding rise was in two activities, one education and domestic activities. This paper looks into this transformation that rural households have undergone during the period 1993-94 to 2011-12. We use the NSS unit-level data of Employment-Unemployment rounds for the analysis. The choice of period broadly fits into the period that saw a rise in non-farm employment in the rural areas. The choice of the later year is constrained by the availability of data. In order to look at transformation within households we take households as the unit of analysis and analyse the changes that occur within households. We keep relation status as a key variable in understanding economic activity diversification. The results show that the near stagnancy of employment in manufacturing, transport, storage and communication and financial and other services, both for males and females, point to the lack of diversification of output growth in the rural areas, which in turn signals the lack of

interlinkage with the urban sector. Given the high rate of output growth of the economy during the period, especially in the services sector, the poor penetration of growth to the rural areas point to the fault lines that are developing between the rural economy and the urban. The emerging long term picture from the rural households is that head of households are moving away from agriculture to non-agriculture employment, while sons are increasingly going to schools, and women, be it spouses of HoH or sons, are withdrawing from the labour market. It can be seen that the rural households, from agricultural households with rudimentary division of labour and specialization within the households, there is increasing division of labour both within the household and in the production site. Within the household, the functions of caregiving and social reproduction, is increasingly becoming a specialized activity of the women in the household, while male members engage in economic activity.

Status: Ongoing.

## **(h) MACROECONOMIC PERFORMANCE**

### ***Completed Studies***

#### **64. Outward FDI and Cross-Border M&As by Indian Firms: A Host Country-Level Analysis**

P.L. Beena

The new policy packages initiated by Government of India including ‘Make in India’, removal of entry barriers of foreign investment in order to tap more foreign savings and better technology is expected to transform Indian economy as a manufacturing hub. However, the most successful firms are trying to invest abroad through CBM&As for various reasons such as access to technology, markets, brands, patents and design, copyrights and trademarks. This paper tries to understand the trends and the pattern of Outward Foreign Direct Investment (OFDI) by Indian firms and the factors that determine OFDI from India through Cross Border Mergers and Acquisitions (CBM&As). As economic activities of those firms in the respective host countries are not accessible, the present study is restricted to analyse the push and pull factors, based on the macroeconomic indicators of the leading nineteen countries that hosted such investments between 2004 and 2015. The study employs Negative binomial and Ordinary Least Square (OLS) panel data regression. It is based on a theoretical framework, i) by drawing insights mainly from the Ownership Location Internationalisation (OLI) theory on determinants of FDI, namely, market-seeking, resource seeking and strategic asset seeking, and ii) by controlling other variables such as India’s Real Effective Exchange Rate and Institutional factors.

The study finds empirical evidence to validate the hypothesis developed by the theories on MNEs related to market seeking, strategic assets seeking and resource seeking motivations of OFDI. The study argues that Indian firms have invested abroad through CBM&As to support their export activities, with such exports doing a complementary role rather than as a substitute for exports. Increasing transaction cost due to rupee depreciation also has motivated Indian firms to engage in overseas acquisitions.

Institutional set-up of India has played a significant role in facilitating such deals. OFDI from India largely took place in the form of CBM&As, particularly in the US and UK, and especially in the manufacturing and service sectors. The foreign exchange spending of the sample of 450 firms shows that they spend much more than their foreign exchange earnings, resulting in an adverse effect on India's balance of payment. Firms doing overseas-acquisitions prefer to spend more on in-house R&D and personnel to strengthen technological capability and skill formation.

Status: *CDS Working Paper No.479.*

## **65. Economic Integration in South Asian Region: India's Role**

P.L. Beena and Meena Chacko (Researcher)

Regional economic integration has been adopted as a strategy for balanced regional development in different regions over the world, especially after the 1990s. Every region in the world and almost every country in the world, is pursuing some kind of integration arrangement with its own economic, geopolitical and strategic interest in mind. South Asia (S Asia) can be propelled faster to find its rightful place in the world if its member states develop as an integrated economy. South Asia is at a turning point and powered by dynamic growth of the Indian economy; it is the fastest-growing region in the world. This would make S Asia the second largest economy in the world after the People's Republic of China, leaving behind even the US. Economic convergences do take place depending upon the extent of cooperation and supplementary measures adopted to assist the lagging regions. The S Asia region has been rather slow in responding to the global trend of regionalism and in exploiting the potential of regional economic integration. For historical and geopolitical reasons S Asia has been better connected to the Western world than with itself. There are studies on the regional integration in S Asia region (Das 2009, Chand, 2011, World Bank, 2018) which highlights the progress and the 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 present paper examines the role of India in enabling economic cooperation and economic integration in the S Asia region during the post-2000. This has been done by analysing the role of aid, and investments made by India with 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 economic integration and trade development of this region. The paper begins with the analysis of the flow of aid to the various countries and recipient sectors across countries over the period of 2004 to 2016. The sectors of the economy that benefited from such Aid flows and its implications for the development of the country are examined by mapping the year to year allocations of nature of aid projects from India across SAARC countries. The nature of funded projects has been identified by compiling information from the Annual Reports of the Ministry of External Affairs, Govt. of India. We have used the OECD classification of sectors to classify the aid projects. It further examines the trade patterns between India and other countries in the SAARC region and how much it has progressed over time. The trade of SAARC countries with India is also examined to understand the role of India in facilitating the economic integration and development

effort in the region. This has been done by analyzing the growth pattern of exports and imports of India with SAARC countries during the period of 2006 to 2016. The trend in OFDI from India to SAARC countries across sectors is examined in section 4 by compiling the outward FDI flows from India to S Asian countries. The last section sums up the observations.

Thus the study observed that Bhutan receives a major share (75%) of aid from India, Afghanistan emerged as a second most aid recipient country. Nepal, Sri Lanka and Bangladesh were other significant aid recipients. From the analysis on growth of intra-regional trade in S Asia (1996-2016), it reveals that exports from countries such as Bangladesh and India were relatively larger to S Asian region than to the world while growth of imports from South Asian region to individual countries was larger than from the world. Though India is found to be the leading import and export partners of landlocked countries such as Bhutan and Nepal, Sri Lanka attracts a major share of FDI from India. From our exploratory analysis, it reveals that India has invested a major share of its FDI in the sectors where India's aid has flowed. From the analysis on the trade pattern of exports from Bangladesh to India and imports from India to Bangladesh, it is evident that there is an intra-industry trade within textile and clothing sector and this sector attracts a major share of India's OFDI. From this analysis, one could argue that India's aid has played a complementary role between its investment and trade relations with Bangladesh. A similar trend was observed in the case of Bhutan as well. Although the study could not find any direct effect on the complementarity between India's FDI with Sri Lanka's trade, the growth of trade between these two countries have been encouraging. A similar observation can be made in the case of Nepal, Maldives and Afghanistan. Therefore it could be very well argued 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 integration but there is still room for corrections in terms of removing of barriers and so on as argued by World Bank (2018).

Status: Completed.

## **66. Unionised Labour Market, Environment and Endogenous Growth**

Chandril Bhattacharyya and Manash Ranjan Gupta (Economic Research Unit, Indian Statistical Institute, Kolkata)

This paper develops an endogenous growth model where the labour union is concerned about wages, employment as well as workers' health, safety and environment protection. As a result, the firm has to forgo a share of its output for choosing a more environment-friendly but less productive technology. The government also finances public abatement expenditure for the improvement of the environmental quality; and to finance this expenditure, it uses income tax. Production of goods and services is the sole source of pollution which degrades the environment. Environmental quality enters into the utility function of the households as pollution negatively affects the health of the people. The environmental quality is productive and enters in the production function as a positive externality. An average economy-wide stock of private capital also has a positive externality in the production. We use the 'Efficient Bargaining' framework to model the

negotiation process between the labour union and the firms' association. Our model is an extension of Chang et al. (2007) paper with the incorporation of productive environmental quality and labour union's preference for workers' health, safety and environment protection. So we have an AK type model, and therefore, the model does not show any transitional dynamics. The model is always in a steady-state balanced growth equilibrium. We show that unionisation, which is defined as an exogenous increase in the relative bargaining power of the labour union, always raises wage rate as well as the firm's share of forgone output to protect the environment. This is because, the union gets utility from both of these arguments, and as it becomes more powerful, it will go for a higher value of them. However, unionisation raises employment if and only if the union is highly employment oriented; and it lowers employment even when the union is neutral. This is because, due to the incorporation of labour union's preference for environment protection, opting for higher employment is now more costly; and the union will opt for it only if the union gets very high utility from increase in employment level. The growth maximising rate of income tax used to finance public abatement expenditure varies inversely with the relative bargaining power of the labour union. This is because, unionisation raises the firms' share of forgone output for a better environment. As a result, the marginal positive effect of public abatement expenditure decreases, which leads to a decrease in the growth maximising rate of income tax used to finance public abatement expenditure. The welfare maximising tax rate is greater than the growth rate maximising tax rate, and it is affected by unionisation. The intuition behind this result is that the positive effect of environmental quality on households' utility is not incorporated in the growth equation and thereby not in the growth maximising tax rate, which is used to finance for improvement of the environment. The growth effect of unionisation consists of an ambiguous employment effect and a positive environment protection effect. A high employment orientation of labour union is a sufficient condition to have a positive effect of unionisation on economic growth rate and the level of welfare. Moreover, due to the positive environment protection effect, unions' growth effect may be positive even if its employment effect is negative, and, unions' effect on welfare level may be positive even if its growth effect is negative. A point to note is that the rise in the bargaining power of a neutral labour union is harmful to growth. To the best of our knowledge, these results are new in the theoretical literature. Some of our results are a generalisation of some of those in Chang et al. (2007) paper, and some results of Chang et al. (2007) are basically special cases of our corresponding results.

Status: Completed.

## **67. Informality, Governance and Growth**

Chandril Bhattacharyya and Dibyendu Maiti (Delhi School of Economics)

This paper develops a two-sector growth model with formal and informal sectors. Both sectors produce a single final good with different production technologies. Technology in the formal sector is better than that used in the informal sector. Labours prefer to find a job in the formal sector for a higher wage. For simplicity, we assume homogeneous labour. So getting a job in the formal sector is a matter of luck. The formal sector uses capital and labour as private inputs, whereas the informal sector uses only labour as

private input. The non-rival and non-excludable productive public goods and services positively affect the output of both sectors. However, the government can also affect output of both sectors by choosing the level of enforcement. We only consider enforcement level (that corresponds to a variety of discrete components from security of property rights, integrity of contracts to control corruption), which affects the formal sector positively but the informal sector negatively. There exists a labour union in the formal sector, but the informal sector is competitive. We consider the ‘Right to manage’ framework to model the negotiation process between the firm and the union. The government taxes wage, rental and profit incomes generated in the formal sector. This tax revenue is spent to procure public goods and services and subsidize informal sector workers. The government maintains a balanced budget in each period and spends a fixed fraction of formal income to finance public goods and services. Enforcement is costly, and the government can choose its level

A relatively weaker level of enforcement allows the informal activities a bit, and therefore releases tax burden from the formal sector needed for redistribution, and this can accelerate the growth. However, sufficiently weak enforcement dampens the formal sector and the growth as well. We have an AK type model, and therefore, the model does not show any transitional dynamics. The model is always in a steady state balanced growth equilibrium. The growth registers an inverted U-shaped relationship against the enforcement level. So, there exists a growth rate maximising level of enforcement. This optimum enforcement level can, however, be higher without labour union and subsidization. This is because they put a burden on the formal sector. Moreover, if a state raises subsidy rate and does not want to sacrifice growth, then the state with a higher level of enforcement than the optimum should decrease the level and with a lower level of enforcement than the optimum should raise the level, and otherwise accepts lower growth. If the state endogenously determines subsidy rate to keep informal income at constant over time, then the subsidy rate gradually falls with the expansion of formal sector, growth rate, and optimum level of enforcement. The welfare maximising level of enforcement is higher than the one that maximises growth, specifically when the consumer cares about the quality of enforcement. We also perform simulation which confirms our theoretical findings.

Status: Completed.

**68. Role of Globalization, Infrastructure, Human Capital Formation in Income Inequality: Contrasting Insights from Two Emerging Economies, China and India**  
 Hrushikesh Mallick, Mantu Kumar Mahalik (IIT Kharagpur) & Hemachandra Padhan (IIT Madras)

By using the annual data from 1980-2013, this study explores the effect of infrastructural development, human capital formation, and economic globalization on income inequality in a sample of two emerging economies, China and India. After confirming the presence of cointegration in the inequality model, the long-run results based on ARDL model surprisingly revealed that while the infrastructural development is leading to rise in income inequality, the human capital formation as expected reduces the income inequality in both the countries. Contrastingly, it also reveals that economic globalization

while accelerates the income inequality in India, but the same factor diminishes the income inequality in China. In addition, while examining the effects of structural changes in these economies from the changing sectoral contributions of output in total output (Industry and Service sectors), it exposes the fact that the changing sectoral growth contributions leads to rising income inequality for China but reduces the income inequality for India. Therefore, the study suggests that the policymakers should curb the rising income inequality through effective redistributive measures such as tax transfers (cash transfers) and other expenditure programmes for the poor. In addition, the Indian government should put more emphasize on sectoral-led- development policy framework for achieving a reduction in income inequality and sustainable development.

Status: Completed.

### **69. Globalisation, Government Capital Spending and Private Investment in India**

Hrushikesh Mallick

Considering the annual data from 1980-81 to 2017-18, the study explores what determines the capital expenditure of India, which can play an important role in economic growth rate of India and then it tries to investigate the effects of broad components of government expenditures on private investment, as a major potential factor of economic performance of the economy. At first, it observed that as per Wagner's law, the per capita income had a significant influence on capital expenditure of the government along with the positive and significant effect of FDI, population growth on government capital expenditure. All of these indicate the demand-side factors might be playing a crucial role in explaining government capital expenditure in India along with Fiscal discipline having its effect on the composition on quality of government expenditures. Exploring on the second issue on how government capital spending influences the private sector fixed investment in the economy, it observed that government capital expenditure is having a negative influence on the private sector domestic fixed investment in India, while FDI has a positive influence on the total domestic private fixed investment in India. Revenue expenditure, including the FRBM Act, has positive influences on domestic private fixed investment. Finding of a negative relationship between government capital expenditure and private fixed investment, could rather indicate that the capital expenditure in India might be majorly carried out for the benefit of the poor and rural sectors of the economy, where lesser is the positive spillovers (benefits) of this government expenditure on the investing class and therefore discouraging the private sector investment in India.

Status: Completed.

### **70. FDI Inflows and Regional Variations in Per Capita Incomes among a Group of Developing Asian Economies**

Hrushikesh Mallick

The study examines what explains the variance of regional per capita incomes across the 11 Asian economies and in that the major stress is given on FDI inflows whether that has any role in causing such variances in the per capita income of the countries along with



other key economic indicators. We found that interest rates and educational achievements negatively explain the variances of per capita incomes, which may imply that these factors contribute less to the variances of per capita incomes. However, the variances of FDI and infrastructure index, a composite of physical and information related technology indices, have contributed positively and significantly in explaining the variances of per capita incomes across the middle and poor Asian economies. This has also been verified and confirmed by employing different time series techniques.

Status: Completed.

### **71. Do International Crude Oil Price and Public Investment Affect Private Investment? An Empirical Analysis for a Large Emerging Economy**

Hrushikesh Mallick, Mantu Kumar Mahalik (IIT Kharagpur) & Manoranjan Sahoo (IIT Madras)

Using annual data for the period 1980-2014, this study attempts to examine the impact of the international price of crude oil on private investment in India in a private investment model. This considered framework also serves to verify whether public sector investment crowds out or crowds in private investment in India and whether real interest rate as a monetary policy channel variable is effective in influencing the private investment. It observed that crude oil price, public investment, and real interest rate have detrimental effects on the growth of domestic private investment, whereas financial sector development, economic growth, and globalization help to boost up private investment.

Status: Published in *Energy Economics* 69 (2018) 307–324.

### **72. Is Skewed Income Distribution Good for Environmental Quality? A Comparative Analysis among Selected BRICS Countries**

Hrushikesh Mallick, Mantu Kumar Mahalik (IIT Kharagpur), Hemachandra Padhan (IIT, Madras) & Bhagaban Sahoo (Anandapur College)

A large number of studies have examined the linkage between income inequality and environmental quality at the individual country levels. This study attempts to examine the linkage between the two factors for the individual BRICS economies from a comparative perspective, which is scarce in the literature. It examines the selected countries (Brazil, India, China and South Africa) by endogenising the patterns of primary energy consumption (coal use and petroleum use), total primary energy consumption, economic growth, and urbanisation as key determining factors in CO<sub>2</sub> emission function. The long-run results based on ARDL bounds testing revealed that income inequality leads to an increase in CO<sub>2</sub> emissions for Brazil, India and China, while the same factor leads to a reduction in CO<sub>2</sub> emissions for South Africa. However, it observes that while coal use increases CO<sub>2</sub> emissions for India, China and South Africa, it has no effect for Brazil. In contrast, the use of petroleum products contributes to CO<sub>2</sub> emissions in Brazil, while the use of the same surprisingly results in reduction of carbon emissions in South Africa, India and China. The findings suggest that given the significance of income inequality in environmental pollution, the policymakers in these emerging economies have to take into

consideration the role of income inequality while designing the energy policy to achieve environmental sustainability.

Status: Published in *Environmental Science and Pollution Research*, 25(23): 23170–23194, June 2018.

### **73. Does Skewed Pattern of Income Distribution Matter for the Environmental Quality? Evidence From Selected BRICS Economies With An Application of Quantile-On-Quantile Regression (QQR) Approach**

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

Using annual data from 1980 to 2014, the study explores the relationship between carbon emissions and skewed pattern of income distribution among 4 selected BRICS economies (e.g. Brazil, India, China and South Africa). Using Quantile-on-Quantile regression (QQR) technique of Sim and Zhou (2015), it tries to contribute towards an empirical understanding on the quantile structure of both the variables for the selected BRICS countries. It finds for India and Brazil that as income rises, although both lower and upper-income people degrade the environmental quality by releasing more CO<sub>2</sub> emissions but interestingly, it is the poor who intensively degrade the environmental quality than the rich. In sharp contrast, for China and South Africa, it finds that it is the poor who relatively contribute less to the environmental degradation by reducing CO<sub>2</sub> emissions than the rich. These findings have greater policy significances, which are discussed at the concluding section in greater detail.

Status: Published in *Energy Policy*, Vol.129, 2019, Pages 120-131.

### **74. Don Quixote in Utopia: Some Reflections on “Demonetized” Economy**

N. Vijayamohanan Pillai

As the legendary poem goes, “Money's a matter of functions four, a Medium, a Measure, a Standard, a Store”, as quoted in *The Economic Foundations of Reconstruction* by Alfred Milnes (1919: 55). Among these, the primary and foremost function is the medium of exchange in transaction or trade. If everyone has everything, then no transaction is required, no money required. So in a collective economy, where everyone works according to one's ability and everyone gets/has according to one's needs, there is no transaction, hence no money. This may sound too ideal to be true or utopia. On the other hand, in a private economy, with unequal distribution of everything (property), when you produce/have what I need, and I produce/have what you need, exchange becomes essential; in such situations, social consumption/benefit increases only thru trade. But there is a problem: in transaction, value of ‘commodity’ 1 must equal value of ‘commodity’ 2; Thus there is a problem of evaluating the values of the ‘commodities’ in transaction. The solution comes in terms of money values of commodities in transaction; money value of a commodity equals its quantity times its price; for price, money acts as a unit of account, *numéraire*: price given in a currency. Thus, money acts as a medium of transaction. That means in transaction economy, money is essential. Money lives on, as

long as the transaction economy! But trade we can, without money, as in barter, which requires “a double coincidence [of wants], which will rarely happen” as W. S. Jevons noted in *Money and the mechanism of exchange* in 1875.

But, money can change in form: the earliest form of money was commodity money like livestock, salt, glass beads, seashells and so on, having uses other than as a medium of exchange. However, the system of commodity money gave way to a system of representative money (representing a claim on a commodity, which can be redeemed to a greater or lesser extent), paper money, fiat money (legal tender). It started with gold and silver merchants or banks issuing receipts (promissory notes) to their depositors – redeemable for the commodity money deposited. These receipts were generally accepted as a means of payment and used as money. Later, the gold standard replaced the gold coins as currency in the 17<sup>th</sup>–19<sup>th</sup> centuries in Europe. Thus appeared the gold standard paper notes, legal tender, or fiat money, convertible into pre-set, fixed quantities of gold. The period 1880–1914 was the heyday of the international gold standard. All major national currencies became convertible into gold at fixed rates. After World War II and the Bretton Woods Conference, most countries adopted fiat currencies, fixed to the U.S. dollar that was in turn fixed to gold. However, in 1971, Richard Nixon decoupled the US dollar from gold and the other countries de-pegged their currencies from the US dollar. Thus the currencies became unbacked by anything except the governments’ fiat of legal tender.

The latest form of money is digital (electronic) money, in contrast to physical money, such as banknotes and coins. It has properties similar to physical currencies, but allows for instantaneous transactions and borderless transfer-of-ownership. Examples include plastic money (debit card, credit card, stored-value card, etc.), virtual currencies and cryptocurrencies and central bank-issued money accounted for in a computer database (including digital base money). The idea of digital cash was suggested by David Chaum, an American computer scientist and cryptographer in 1982 in an article “Blind signatures for untraceable payments”; in 1990, he founded DigiCash in Amsterdam, an anonymous cryptographic electronic money company, to commercialize the ideas. Thus DigiCash became the first form of virtual currency, or cryptographic electronic payment, requiring user software in order to withdraw notes from a bank and specific encrypted keys before it can be sent to a recipient. This property makes it untraceable by the issuing bank, the government, or any third party. Bitcoin and its alternatives are based on cryptographic algorithms and are thus also called cryptocurrencies. The digital currencies were popular during the Dot-com bubble (Internet bubble, 1995-2000).

A number of other electronic payment modes then followed suit. In 1997, Coca-Cola introduced vending machines using mobile payments, and in 1998, PayPal emerged. Electronic funds transfer at point of sale (Eftpos), an electronic payment system involving electronic funds transfers based on the use of payment cards, such as debit or credit cards, at payment terminals located at points of sale (Pos), had originated in the US in 1981 itself; and mobile Eftpos came into existence in 1996, with hotels in Kuala Lumpur installing systems in 1997. By 2004 Cellular based Eftpos infrastructure had really taken off; By 2010, Cellular Eftpos had become the standard for the Global market,

reducing the use of cash, physical money. And this introduced the concept of cashless economy, an economy, where financial transactions are not conducted with money in the form of physical currencies/coins, but through the transfer of digital information (electronic money) between the transacting parties. But note that this is not a moneyless economy; money does exist as a legal tender, but exchanged only in electronic digital form. Thus, a cashless economy is not a de-monetized economy, but a re-monetized economy!

Status: Completed.

### **75. An Empirical Analysis of Disinvestment Policy in India: Does Ideology Matter?**

Ritika Jain and Shubhro Sarkar (IGIDR)

Using panel data estimation for limited dependent variables and sample selection models, we identify political, industry-specific, firm-specific and macroeconomic variables which influenced the decision to divest central public enterprises in India between 1991 and 2010. We find that higher partial privatization is driven by a more right-winged coalition, lower ideological spread in the coalition, and lower ideological difference between the centre and the state in which the public enterprise is located. We also find that after the government selects larger, more experienced and more profitable firms, it divests the relatively less experienced and less profitable firms to a larger extent.

Status: *Journal of Economic Policy Reform*, 1-15 (2018).

### **76. Contributions to the Exchequer Funds by State-level Public Sector Enterprises: Does Political Alignment Matter?**

Ritika Jain

Regular payments or contributions to states' exchequer funds are mandated for state-level public sector enterprises (SLPEs) in most states in India. However, in the absence of a regular mechanism to ensure timely payments, the contributions are abysmally poor. In most SLPEs, the situation is driven by the presence of soft budget constraints and strong financial support from the state governments. The current study analyses the effect of political factors on the contribution that SLPEs make to the state governments' exchequer funds. Using different econometric methods, the study finds that SLPEs located in assembly constituencies that are politically aligned with the state government make frequent and larger contributions to the exchequer funds. Surprisingly, the subsidies provided to the SLPEs by state governments are not driven by political alignment between the state government and the constituency where the enterprise is located. In fact, subsidies compensate for the contributions to the extent that there is no effect of political alignment on net contributions (contributions–subsidies) by SLPEs to state governments. Finally, political alignment has a strong influence on the relative share of contributions made by SLPEs to state governments vis-a-vis the centre. These results are robust across different model specifications.

Status: *Constitutional Political Economy*, 29(1), 93-113 (2018).

### **77. To Profit or Not Profit? The Case of State Level Public Sector Enterprises in India.**

Ritika Jain

Given the wide social ambit of state-owned enterprises, operational inefficiencies may lead to forgoing profits. The current study examines profitability of state-owned enterprises in India from 2007 to 2009 from a political economy perspective. The paper finds that profitability of an enterprise is driven by how right-wing the state (where the enterprise is located) is. Additionally, if the state where the enterprise is located is politically aligned with the Central government, the enterprise earns higher profit. Finally, the effect of state subsidies on profits of enterprises reduces in the period just before state-level elections.

Status: *Keio Economic Studies*, 53, 53- 70 (2018).

### **78. Welfare Cost of Inflation: Evidence from India**

Srikanta Kundu, Irfan Ahmad Shah (Doctoral Scholar) and Manmohan Agarwal

In this paper, we estimate the welfare cost of inflation (WCI) to understand how costly anticipated inflation is in India. The WCI is estimated both in partial and general equilibrium framework using consumer surplus and compensating variation approaches. Based on the quarterly data from 1996–97Q<sub>1</sub> to 2014–15Q<sub>2</sub>, we found that the WCI at an inflation rate of 10% is ~0.53% of GDP. This implies that reducing inflation from 10 to 0% may result in an output gain of 0.53% of GDP. The study also shows that the WCI is an increasing function of rate of inflation and inflation elasticity of money demand. The inflation elasticity is estimated through double-log and semi-log specifications of money demand using Fisher and Seater (Am Econ Rev 402–415, 1993) long-horizon regression approach. It is found that the specification of money demand influences the magnitude of WCI.

Status: Published in *Journal of Quantitative Economics*.2018.

### **79. 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: Completed.

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

Srikanta Kundu, Kushal Banik Chowdhury (ISI Tezpur) and Kaustav Kanti Sarkar (ISI Kolkata)

This study has examined 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: Completed.

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

Srikanta Kundu, Mahamitra Das and Nityananda Sarkar (ISI Kolkata)

In this study, we have examined volatility spillovers as well as volatility-in-mean effect between REIT returns and stock returns 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 evident from the results in both the countries that own risk-return relationship of REIT market is positive and significant only in the bear market situation 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 behaviour in the conditional correlation also hold. 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.

## **82. Effect of Economic Policy Uncertainty on Stock Market in Different Market Conditions: A Regime Switching Analysis for G-7 Countries**

Srikanta Kundu and Amartya Paul (Doctoral Scholar)

This study examines the effect of economic policy uncertainty on stock market risk and return in different market conditions for the group of seven countries. Employing a Markov switching model and taking monthly data of stock market return, realized volatility and economic policy uncertainty, developed by Baker et al. (2016), we have seen that the impact of economic policy uncertainty is higher in the bull market compared to the bear market condition. Again, it has been found that stock market risk, measured by realized volatility, is much affected by EPU than the stock return.

Status: Completed.

### ***Ongoing Studies***

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

Chandril Bhattacharyya and Manash Ranjan Gupta (Economic Research Unit, Indian Statistical Institute, 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 spend 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 evidence 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: Ongoing.

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

Hrushikesh Mallick

The study makes an empirical exploration to understand the role of ICT infrastructure and governance quality in mobilisation of both direct and indirect tax revenues for the combined governments of Centre, States and Union Territories (UTs) as a whole in India. This considers a period between 1990-91 and 2017-18 that includes the implementation of new economic policy reform phases, where there have been consistent significant policy efforts by the governments in reforming the taxation system towards making it



more simple, and taxpayer compliant with an aim to help augment generation of both direct and indirect tax revenues for both the states and the central governments in India. From preliminary result analysis, It finds that neither governance nor ICT infrastructures are helping the governments to realise greater revenues at the central and state government levels.

Status: Ongoing.

### **85. Modelling Inflation Dynamics in India**

M Parameswaran and Pulapre Balakrishnan (Ashoka University)

In mainstream macroeconomics, today inflation is related to the ‘output gap’, defined as the deviation of output from its ‘natural’ level. This view of inflation has been adopted by the leading central banks, including India’s, underpinning the move to ‘inflation targeting’ as the sole objective of monetary policy. We present an alternative model of inflation based on features that would be considered typical of the Indian economy and a specific understanding of what drives the inflationary process here. In this paper, we consider structuralist model of inflation and output gap model of inflation. We then test both the models across data from India over different periods and at differing frequencies. We use annual data and quarterly data to test the validity of these models in the Indian context. We also use different measures of output gap as well as different measures of inflation. Further, we also use OLS and GMM-IV estimates. The result of the paper is conclusive and shows that structuralist model of inflation empirically relevant in India. This result bears significance for what will constitute an appropriate anti-inflationary policy.

Status: Ongoing.

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

M Parameswaran

In mainstream macroeconomics, today inflation is related to the ‘output gap’, defined as the deviation of output from its ‘natural’ level. This view of inflation has been adopted by the leading central banks, including India’s, underpinning the move to ‘inflation targeting’ as the sole objective of monetary policy. We present an alternative model of inflation based on features that would be considered typical of the Indian economy and a specific understanding of what drives the inflationary process here. In this paper, we consider structuralist model of inflation and output gap model of inflation. We then test both the models across data from India over different periods and at differing frequencies. We use annual data and quarterly data to test the validity of these models in the Indian context. We also use different measures of output gap as well as different measures of inflation. Further, we also use OLS and GMM-IV estimates. The result of the paper is conclusive and shows that structuralist model of inflation empirically relevant in India. This result bears significance for what will constitute an appropriate anti-inflationary policy.

Status: Ongoing.

### **87. Economic Policy Uncertainty and Inflation Uncertainty: Evidence from Developed and Emerging Economies**

Srikanta Kundu, Kushal Banik Chowdhury and Amartya Paul (Doctoral Scholar)

There are several studies which consider macroeconomic variable such as output gap, monetary policy, oil price etc. as a determinant of inflation. Friedman has suggested that apart from all the macro variables, uncertainty plays a major role to influence inflation. There are studies which consider inflation uncertainty and output growth uncertainty as a determinant of inflation. Economic policy uncertainty (EPU) may be a major source which may influence inflation uncertainty and finally increase inflation. In this study we want to analyse the relationship between economic policy uncertainty and inflation uncertainty in case of four emerging countries (Brazil, Russia, India and China) and two development countries (The US and The UK). We are taking multiple countries to see if there are any differences among the countries in case of the role of EPU on inflation uncertainty. We also want to see dynamic nature of the relationship between inflation uncertainty and EPU (when it is increasing/ decreasing).

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

### **88. Impact of Climate Change and Institutional Credits on Agricultural Productivity in India**

Hrushikesh Mallick

Using the annual data from 1970-71 till the latest period, the study would examine the broad set of determinants of agricultural productivity such as climatic factors captured in rainfall and temperature, institutional credit to agriculture, gross capital formation by the private and public sectors and domestic demand sources along with other inputs used in agricultural production, to what extent they exert their influences on the agricultural productivity in India over this longer period of time. In case the study finds that the public sector investment and institutional credit which matter for potentially improving the agricultural productivity in India, it would demonstrate for policy that there exists huge potential for increasing the productivity in Indian agriculture by stepping up of public sector investment along with greater allocation and deployment of long term institutional credit to agriculture.

Status: New initiative.

### **89. Effects of Institutional Quality and Public Outlays on Growth and Inequality Across the Indian States**

Hrushikesh Mallick and Amit Kumar Nandan

The study would be investigating the role of institutional quality and government expenditure programs on economic growth and inequality across Indian states during the period of implementation of new economic policy reforms with an objective to find their dynamics.

Status: New initiative.

## **(i) MIGRATION**

### ***Completed Studies***

#### **90. India Migration Report 2018: Migrants in Europe**

S. Irudaya Rajan (Editor)

The ninth volume of the edited series of the India Migration Report focuses on migration to Europe with reference to the European Refugee Crisis and Brexit and other recent international events; this volume also inquires into issues faced by migrants in Europe. It dwells upon issues such as social security benefits, tracing work permit schemes, policy changes in terms of visa requirements for health and IT professionals across the globe and linguistic and gender norms within transnational communities. In this context, it evaluates the socio-economic elements that impact migrants and their dependents. The volume further discusses issues revolving around several groups such as bachelors in the Gulf, Indian students and Tamil labourers, thus elaborating their primary concerns.

The first chapter identified EU as a favoured destination for the Indian population, largely focusing on historic trends and further analyzing the policies or challenges of movement within students and labour communities to migrate from India to the EU. Chapter two explored major social security agreements in practice, making an extensive assessment of bilateral treaties in order to identify security benefits and its totalization of insurance periods which stands to avert dual contribution towards the homeland and destination. Chapter three, draws modelling of Blue Card scheme in the UK, and as to how it complements other immigration policies across the globe, attracting highly skilled workers from countries like India over the decade since its first pronouncement. Chapter four illustrated how emigrants and temporary visitors expand the scope of economy in terms of bilateral relations. Chapter five examines social security coordination between countries such as the UK and Belgium and the Indian social security system as they migrate to the UK or Belgium.

Chapter six explicated the enlargement of EU and Brexit as two major events that occurred in the European Union. The chapter analysed competition faced by Indian migrants in Europe by showing the patterns of Indian migration pre- and post-enlargement of EU. Chapter seven points to the demands put forth by the European Commission and explains the current patterns in health professional mobility from India to the EU. The chapter also provided insights on frequent career choices of doctors and nurses preferring to move to the European market. In chapter eight, view in retrospect, the impact on the UK economy due to Brexit and calls attention to decreasing net immigration after Brexit. The chapter explained the results of empirical analyses on multiple points of impact and also narrated the labour and international student migration.

Chapter nine studied the growth of English language programmes across Europe, wherein Brexit, and immigration policies in the US stand liable to the substantial growth of the same. The chapter combines legalities of education in EU for international students in the light of these developments. Chapter ten explored the themes of shift of healthcare

workers from developing countries to developed countries due to ageing populations and decline in indigenous workforce, which strengthen international migration in the health care sector. Despite these factors, developed countries confine the inflow of foreign workers through stringent immigration and visa regulations.

Chapter eleven theorized major distinctive features of Indian migration to Italy. In particular, the essay elaborated numbers, places of settlement, and productive sectors of Indians, in order to determine the depth of economic integration. Further, it shows the trajectory of migration from India to Italy, identifying its origins since the late 1970s and subsequent arrivals, along with familial reunions since the late 1980s. Chapter twelve deals with matters concerning international trafficking of Sikhs from Punjab to the province of Latina (Italy). The chapter further examines relations of international trafficking among humans and the exploitation of migrants in the workforce and illegal labour brokerage in particular. Chapter thirteen identified various trajectories of highly skilled Indian female migrants employed amid the male-dominated IT sectors, both in India and the UK. The paper scrutinizes gender norms within workplaces in both the UK and India and particularly focus upon feminist aspects based in IT sectors in the UK. The fourteenth chapter explored issues of identity and 'Indianness' among migrants of Indian origin in the tightly-knit university town of Oxford. The fifteenth chapter demarcated transnational attachments as an autonomous subject, the developing of conscious or unconscious minds that signify personal experiences of student migrants with a sense of cultural orientation.

The sixteenth chapter highlighted how current migration policies of Europe affect labour migration from India and analysed varied aspects of how migrants are affected in terms of social mobility and economic integration, along with their health and well-being. Chapter seventeen discussed the unpredictable nature of the lives of skilled migrant workers when it comes to job security and worker-citizen relationships. The author investigated the widening between labour market and work practices that is fostered by a burgeoning anti-immigration climate in the UK. The eighteenth chapter using data on 300 male migrants from Tamil Nadu who reside in the UAE monitored aspects of employment, livelihood, and wellbeing. The authors report on topics such as mental trauma, social life and economic mobility. This chapter investigated how Tamilians are pushed towards what may be considered the lowest stratum of the Gulf's social structure. Chapter nineteen observed the impact of migration on the fertility of Kerala. The authors comment that migrant households have early child-bearing behaviour and an over-representation of girl children. Finally, the authors emphasized the fact that migration alone cannot determine demographic transformation and other proximate determinants such as religion, age, education and employment are also factors in fertility. The concluding chapter provides a comprehensive statistical analysis of the impact on the Tamil Nadu economy due to out-migration from households.

Status: Book by Routledge.

## **91. India Migration Report 2019: Diaspora in Europe**

S. Irudaya Rajan (Ed.)

The tenth edition of the *India Migration Report* (IMR) concentrates on diaspora in Europe. In the current geopolitical climate, the rise in fragmentation of groups is, in part, due to an inadequacy in the understanding of identities and cultures of diaspora around the world. Based on studies in Europe and India, the current volume examines pathways of settlement of migrants, connectivity and achievement of diaspora communities and challenges faced in successful integration into the larger society. In this framework, the Report emphasises the need to recondition ideals of multiculturalism and union to create a less disintegrated world.

Chapter one looked at the mobility paths and experiences of Indian students and skilled professionals in Switzerland and examined the transnational contacts, knowledge, skills and social capital they accumulate that shape the type of connection they have with India. The second chapter narrates how the process of building places of worship is akin to territorializing immigrant presence that creates new symbolic universes. It focused on the process of identity consolidation around material culture and temple construction of a Hindu community in the Great Lisbon Area.

The third chapter provided both a historical overview of migration patterns as well as recent trends in Indian migration to the UK and assesses the socio-economic condition of contemporary Indian diaspora in the UK. The fourth chapter focused on the Punjabi diaspora community in the UK and their contributions to the home state of Punjab. Based on in-depth discussions with Punjabis settled in the UK as well as migration and diaspora experts on the contributions made by this diaspora to their home state, the author emphasizes the importance of creating a business-friendly environment in the state of Punjab to incentivise successful diaspora to participate in the developmental process.

The fifth chapter looked at the diverse ways in which citizens and immigrants in northern Italy are engaged in the processes of integration across cultures, faiths, and linguistic barriers. Cosmopolitan sociability and its construction through networks of interconnection and locally based activities have been imperative in blurring racial lines in Italy, which is popularly known as a strongly nationalistic society.

Indian migration to Germany is momentous. In 2016, India represented the most important non-EU country of origin for high-skilled migrants and the second most significant sending country for international students. Although there is strength in numbers, chapter six talked about territorial inequalities that have an influence on integration and subsequently affect personal goal achievement among Indian migrants.

Using a mixed research method, the seventh chapter unfolds the concept as a social group arising out of a desire to belong and as a means to be distant from other migrants, especially humanitarian migrants. The eighth chapter is a qualitative study based on narratives of skilled Indian migrants in the Netherlands. This chapter gives deeper

insights on how they perceive their role in the Dutch society and what they recognise to be their contributions.

Chapter nine contributes to a vastly growing literature on transnational 'emotion work'. Emotion work refers to the management of feeling in order to create a publicly observable display. This outward countenance that produces the proper state of mind in others, and which is part of a search for identity, is explored deeply within an Indian Punjabi transnational community in Europe.

The tenth chapter dives deep to understand the serious question - *what exactly is the Indian diaspora?* This chapter is the result of ten interviews of Indians living in different parts of Europe to understand the idea of 'Indianness'. The eleventh chapter links empirical evidence with theoretical literature on the interdisciplinary concept of social capital to demonstrate the selectivity that first-generation Malayalees in Sweden exhibit in building intimate bonding capital within social groups.

Chapter twelve looks at various transnational links migrants maintain with their homeland. These links are shown to be imperative in the development and transformation of their native communities in the homeland. This chapter is the consequence of a study of Punjabi Sikh migrants in Italy, the second-largest Sikh population in Europe after the United Kingdom.

Chapter thirteen examines the topic of older migrants in Europe by investigating the home-making practices of older Hindustani Surinamese living in the Netherlands that contribute to their well-being.

The fourteenth chapter stresses the importance of diaspora engagement by the source societies.. Chapter fifteen diverges from the much discussed social and economic context of Indian diaspora to focus on psychosocial aspects of transnationalism and the formation of intimate relationships. Empirically, they study the formation of 'mixed couples' consisting of Indians in ethnically heterogamous relationships with Danish spouses, and the transformation of these relationship patterns over the decades, thus touching on notions of belonging and identity.

Chapter sixteen studies the management of labour migration during times of financial and political crises. Using data from the United Kingdom, it explores the negative impact on the strength and agility of labour markets due to economic crises and conceives ways to navigate following periods of recovery.

Chapter seventeen scrutinizes the influence of the presidency of Donald Trump on migration. It also deliberates on the politics and attitudes about immigration that led to his election. Besides, the rationale behind and repercussions of Trump's policies on immigration are developed in detail.

Chapter eighteen delves into the demographic transition in the Indian state of Kerala, a state set apart from the rest of the country in human development. This chapter

summarises the changes in mortality and fertility in Kerala since its formation and the impact of these changes on the migration scenario of the state. Chapter nineteen is on the results from a panel data analysis of four rounds of Kerala Migration Surveys (KMSs) between 1998 and 2013. The research spanning fifteen years effectively answers questions on the nature of transformation of migrant households. The final chapter is on the complicated and less understood relation between migration and income inequality. The author inquires into this critical relationship as proposed by the New Economics of Labour Migration (NELM) through empirical research in rural Uttar Pradesh - a region currently witnessing high growth rate in migration.

Status: Book by Routledge.

## **92. South Asia Migration in the Gulf: Causes and Consequences**

Mehdi Chowdhury and S. Irudaya Rajan (Eds.)

The book explains the benefits of both Gulf countries and South Asian countries due to migration. The Gulf countries are visibly highly dependent on migrants from South Asia in almost all the sectors. Without them, the current level of economic and other activities in the Gulf is just unsustainable. On the other hand, the South Asian countries are characterised by overpopulation and a very high level of poverty. The remittances received from the Gulf countries have been instrumental in generating foreign currencies for the South Asia countries in the last four decades.

The first chapter discusses in detail the historical background of the South Asian migration in the Gulf, and specifically the context through which the South Asian migrants came to replace the Arab migrants in the Gulf region. It assesses the link between oil prices, economic growth and labour needs, and highlights the political underpinnings of the national composition of migration flows to the region. This chapter examines some economic and socio-political challenges to reform the Kafala sponsorship system. Using most recent receiving countries' statistics, it describes Asian communities in the various GCC States, their size, national composition and most salient characteristics as of the mid-2010s.

The second chapter focuses on the demography of the Gulf with specific emphasis on the South Asian migrants. It features statistics of the demographic composition of the Gulf by sex, education and age which will be invaluable to students and academicians who are looking for obtaining a general understanding of the demographic profile of the Gulf.

The third chapter focuses specifically on the Kafala sponsorship system of the Gulf. It is an invaluable source of information for anybody looking for a solid and updated understanding of the Kafala system and its historical context. This Kafala sponsorship system essentially renders the migrant to be dependent entirely on the citizen-employer's protection. The chapter places this practice within the historical background linking it with pre-oil customs of the Arabian Peninsula. It explores the

recent and varied practices of sponsorship, which extend beyond the Arabian Peninsula to the greater Arabic speaking regions.

The fourth chapter attempts to evaluate the South Asian migration in the Gulf from the perspective of an economist. It discusses migration theories and aligns the South Asian migration in the Gulf with those theories. It covers a number of topics such as labour market, health, education and innovation that economic investigations on the Gulf should study, and identifies the importance of obtaining necessary data to comprehensively studying those topics utilising advanced statistical/econometric techniques. The issues discussed in the chapter will serve as a guideline for the students and researcher alike for future developments of this field.

The fifth chapter studies the long-run relationship between the South Asian labour and the GCC's workforce composition and modes of operation. It explores the impact of the South Asian migrants on the labour market, specifically on the indigenous human capital and suggests that the South Asian labour enabled GCC rulers to institute a mode of "social contract" which provided citizens with government jobs, luxury life styles facilitated by cheap labour and heavily subsidised migrant labour for their business ventures. It resulted in a highly overstaffed bureaucracy and the lack of incentives for businesses to invest in labour-saving technologies.

The sixth chapter looks at the issue of gender in the Gulf countries. This chapter assesses the attitudes, policies, and achievements of Gulf countries in their efforts towards enhancing gender equality in terms of education, employment, political participation, and provision of civil and social rights, primarily for citizens. It suggests that the South Asian migrants, especially, the availability of female household workers may have played a role in increasing labour force participation of indigenous women.

The seventh chapter studies the outward remittances from the Gulf and is based on some recently published important pioneering research papers. The chapter discusses the time series characteristics of remittance outflows from the GCC countries. Further, the chapter uses new data on remittance transfer costs to shed light on the different mechanisms of money transfers to South Asian countries.

The eighth chapter studies the construction section in the Gulf and prominently covers the issue of labour abuse in the Gulf. This chapter details the labour abuse many migrants suffer during recruitment and employment, and loopholes in legislation and enforcement. It addresses the legislative and administrative frameworks for the construction sector migrants and discusses that the South Asian countries prefer to avoid over-regulation of the Gulf labour market to ensure the inflows of remittances.

The last chapter focuses a novel area of research as it attempts to link South Asian migration in the Gulf with the regional political landscape. Migrant workers are motivated to move to countries that provide higher salaries compared to their countries of origins. Therefore, many people believe that migrant workers do not bear any political weight. However, considering that many South Asians have already migrated



to the Gulf and regularly sending remittances, their presence as political stakeholders in both South Asia and the Gulf cannot be neglected. This chapter tries to link the changing relationships between the Gulf and South Asian countries through migration-related socio-economic ties.

Status: Book by Palgrave MacMillan.

**93. Youth Migration in Emerging India: Trends, Challenges and Opportunities,**  
S. Irudaya Rajan and P. Sivakumar (Eds.)

This book is an overview of youth migration, its characteristics, issues and challenges considering both inter-state and international contexts of youth migration in and from India followed by a few chapters on the age-old phenomenon of regional migration by young people from rural to urban areas. It discussed issues in urban migration and ends with a look at international education-related migration of Indian youth. Ultimately, this work argues that youth migration in India is a neglected phenomenon and that it is important to look into youth migration in the context of the emerging demographic dividend.

The overview chapter examines the characteristic features of young migrants based on both the Census and NSSO data. This chapter traces the definition and demographic profile of Indian youth and also touches upon the potential demographic dividend from the perspective of migration.

The chapter ‘Associated Reasons of Internal Migration in India: The Education–Employment Divide’ explains the education–employment divide as one of the reasons for students’ internal migration in India, highlighting the 28 states in reference to the share of education and employment-related outmigration. The study examines the different aspects of emerging student migration in India based on the secondary data by analysing the NSSO 2007–08 round. The study reveals that some Indian states are more prone to student migration than others due to the educational inequality existing in the education system. It also concludes that the reason behind the higher projection of student mobility can be due to the low investment made in higher education and technical education, thus resulting in a demand-supply mismatch of higher education in these states.

The chapter ‘Regional Disparity and Youth Migration in India: Focusing on the EAG’ examines the regional disparity and youth migration in India by focusing on EAG states. Attention is given to the study of spatial patterns of migration in India for understanding the characteristics of youth migration and analysing the linkages between youth migration and development. In general, movements are mostly from economically less developed regions, focusing on EAG states and union territories, to relatively more developed regions.

The chapter Outmigration of Young People and its Role to Diversify the Livelihood in Rural India: A Study of Eastern Uttar Pradesh and Bihar examines the magnitude and dynamics of youth outmigration from the rural areas and its role in supporting the

livelihood of the household, with special context of eastern Uttar Pradesh and Bihar. The first and second sections of this paper try to explore to what extent the outmigration of youth is supporting the livelihoods of households in this region and also how the economic status of a household varies by its primary activity of livelihood.

The chapter, 'Is Youth Outmigration Only Survival Strategy? A Study of Rural Bihar' makes an attempt to analyse the issue of youth migration as a livelihood strategy. The paper measures the intensity of rural to urban migration with special reference to youths of different social groups and also explores how migration has an impact over rural demography and quality of life of young migrants.

The authors point out that the intensity of migration was not uniform across migrants when factors of migration, such as age, gender, education and social groups, are taken into consideration. Across various social groups, tabulated average score earned on the basis of well-being index for youths as well as migrants' population is used, and the migrant youth have reported less deprivation on the well-being index. Hence, the authors conclude by stating that migration seems to be a better survival strategy among rural youth.

For the micro-level analysis, the chapter 'Costs and Benefits of Outmigration of Young People from Rural West Bengal: A Case Study of Two Districts' narrates the cause of outmigration of rural youth from West Bengal. The paper spans through the nature, pattern, causes, and costs and benefits of youth migration. An attempt has also been made to identify whether migration takes place largely due to push factors or pull factors. The paper also gives an alarming signal of poor education of children in the area due to migration with adult members. From the findings of the study, the author makes policy recommendations for doing proper planning for rural development in West Bengal.

The chapter 'Migration and Vector-borne Diseases: A Sociological Study of Youth Migrants and Their Vulnerability in Kolkata' by Nibedita Bayen and Ausmita Dey draws attention to the vulnerabilities associated with young migrants. In this study, primary data has generated certain questions about the reasons of persistence of vector-borne diseases and how afflicted migrant youths are coping with vector-borne diseases. This study also examines the role of the government in controlling vector-borne diseases in slum areas among migrant youths, considering the complexity of negotiations between migrant youths and the government. This paper points out that migration under distress conditions compels migrants to lead an unhygienic life, and most of the young migrants are unaware of healthy lifestyle practices.

The chapter 'Sustainability Quotient of Education and Employment-led Migration in Various Metropolises in India' focuses on student migration and examines the sustainability potential of education-linked migration with that of employment-linked ones. The study highlights student migration to various metropolises from the north-eastern states and other economically backward states in India. It also examines the sustainability of education and employment-linked migration based on the information on duration of migration. The author argues that the north-eastern region is facing a

‘backwash effect’ as a result of youth migration. It is mainly because the region is deserted of its young talent pool and ‘youth development’ per se is limited.

The chapter ‘Youth Migration for Education from the North-eastern region to the Different States of India’ complements the above findings based on the analysis of Census data on student migration from the last three decadal censuses; it points out that poor infrastructure and limited choice of education are the two driving forces for outmigration from the north-east to other states of India.

The chapter ‘Indian Students’ Migration: A Critical Analysis’ explains the domestic factors responsible for Indian students’ migration abroad and also analyses the complex interplay of various factors at the international and domestic levels, which have opened the floodgates of student outmigration from India. The author also analyses the strength of the Indian education sector in receiving foreign students. The author argues that India has immense potential in tapping a trillion-dollar industry, provided the policymakers recast India’s education policy from a global perspective.

The chapter ‘International Migration for Higher Education: Indian Students in Singapore’ makes an attempt to examine Indian students’ migration, particularly to Singapore. This paper examines the socio-demographic profiles of Indian students in Singapore, financing education and living expenses, accommodation and work opportunities, communication and impact of settlement back home. This paper looks into the Indian students’ education and employment by considering the international migration policy of Singapore.

Status: Published by Orient BlackSwan.

#### **94. Emigration from Kerala: End of an Era**

K.C. Zachariah and S. Irudaya Rajan

This book contains nine chapters including demographic background, international migration, internal migration, characteristics of migrants, remittances and its impact on Kerala economy, employment and unemployment situations in Kerala and, Impact of Migration on the Contemporary Demographic Transformation in Kerala and Panel Data Analysis in Kerala Migration Surveys, 1998–2013 and prologue to Kerala Migration Survey 2016. It also examined the reliability of the Kerala Migration Surveys in comparison with Pravasi Malayali census 2013 carried out by Directorate of Economics and Statistics, Government of Kerala, on behalf of the Department of Keralites’ Affairs, Government of Kerala. The PMC was not a sample survey like KMS, but a complete enumeration of all households in the state in an attempt to tally the total number of emigrants from the state. There are three points in favour of KMS estimate: KMS estimate is much larger, by over 30 per cent; KMS estimate from the various surveys are very consistent. In nearest lakhs, they are 22 lakhs in 2008, 23 lakhs in 2011, and 24 lakhs in 2014; and KMS 2014 draws on nearly two decades of migration research experience at CDS and previous Kerala Migration Surveys. Over time, adjustments have been made in the methodology to produce accurate estimates. These reflect methodological improvements in the components or statistical techniques used to

estimate the flow of Kerala migrants. However, it must be recognized that PMC was a good first attempt and an important initiative by the government of Kerala. There are several questions that a sample survey cannot answer, but only a complete census can tackle. An example is the conclusion in the PMC report: “Idamalakutty Panchayat in Idukki district is the only Panchayat in Kerala that has no emigrants”. A sample survey like KMS cannot make such a categorical statement. The fourth chapter describes the student migration from Kerala. According to the KMS survey, Pathanamthitta sent out the largest number of students for studies outside the state. In chapter five, it is said that, about three-fourths of the people, irrespective of their gender, are migrated from India at their prime youth (20–44 years). Chapter six is exclusively for the remittances to Kerala. The seventh chapter found that unemployment is high among the educated, especially among those with a degree. From the analysis in the eighth chapter it is evident that currently married women in migrant and non-migrant households have shown a difference in fertility behaviour. However, migration alone cannot stand in the way of demographic transformation; there are other factors which are proximate determinants of fertility. Education and religion have a vital role in having male and female children in both migrant and non-migrant households, while the age of women has a relation with number of male children and work status has a relation with the number of female children.

Status: Published by Redink.

**95. The Double Speak of India’s Emigration Policy: Unravelling the Debilitating politics of Protection of Women through the Emigration Check Required Category**  
Praveena Kodoth

*Sponsor:* Kerala in the World Economy

The regulatory environment for the recruitment of women migrant domestic workers (MDW) and nurses for employment in the Middle East has turned increasingly opaque, a tough rhetoric of protection and cumbersome legal requirements subsisting with tacit acceptance of irregular mobility. Successive Indian governments have used the Emigration Check Required (ECR) mechanism devised under the Emigration Act, 1983, to impose stringent restrictions on the mobility of women workers to the ECR countries, a set of 18 countries including all of the Middle East, which have a record of violation of rights of migrant workers, and justified them as necessary to prevent women from coming to harm in the destination. In the normal course, citizens who have not completed 10 years of education, corresponding broadly to a class of ‘unskilled’ workers, hold ECR passports and are subject to special state scrutiny through the office of the Protector of Emigrants, which whets their documents to assess whether they qualify for migration. Decades of gendered restrictions failed to stem the flow of MDWs to the Middle East but contributed to a cycle of marginalization. But in 2015, nurses, who are predominantly women, were brought under the ECR category in response to a financial scandal that exposed entrenched corruption in private recruitment from India to the Middle East. Governments the world over have used barriers and prohibitions against the mobility of people as instruments to serve a variety of politics. Therefore Indian

restrictions on women workers may be best examined in terms of the specificity of the politics they serve. In this context, I wish to draw attention to how the ECR mechanism has served as a rhetorical device that allows the Indian state to resort to posturing as a means to combat adverse domestic public opinion especially in the wake of public outcry over the exploitation and/or abuse of women workers in the Middle East even as it deflects attention from violations of rights and abuses that are a fall out of its own repressive measures

My focus is on the detail of policy formulation in India but it bears mention that the ECR mechanism is fundamentally flawed because compliance with it does not determine the security of emigrant workers in the Middle East, where the Kafala system of recruitment and sponsorship, which governs migrant workers, fosters employment relations that have been characterized as modern slavery. This paper contributes a gender perspective to a growing understanding that the sending state is not a unitary actor, that multiple actors, agendas and institutions within the sending state influence policy and eventual outcomes. The Indian government has rolled out a governance approach to migration with bilateral agreements and an online eMigrate system to manage recruitment. Simultaneously, India has strengthened measures to control recruitment of women workers. These measures have been instituted in response to patriarchal and nationalist demands that represent territorial control over women's bodies as normative. But public anxiety regarding the migration of 'unskilled' women also has a class and caste dimension. MDWs are disproportionately from the historically oppressed social groups and have been stereotyped in sexual terms as eager to use migration to profit through illicit means. Besides, periodic reports of their abuse in the Middle East expose the reality of a nation that aspires to be a major economic power

Nevertheless, policymakers may merely pay lip service to nationalist and ethnocentric ideologies implicit in public opinion with little intention of acting on them. Policymakers have not been impervious to contrary demands arising from interest groups that wield economic and political clout. Recent interventions suggest that the Indian state's policy is far from composite or even internally consistent as policymakers are forced to manoeuvre interest conflicts that implicate public opinion, powerful private lobbies and even government agencies at the Centre and state levels. By focusing on recent policy interventions related to the recruitment of MDWs and nurses to Saudi Arabia and Kuwait respectively, I draw attention to how government agencies negotiate contentious demands from powerful interest groups resorting sometimes to tacit means to cede them. In contrast, the governments have not only refused to recognize the concerns of MDWs and to bring them aboard the policymaking process but may be complicit in tactics that reduce them to pawns in a bargaining process that serves to secure the interests of more powerful groups.

Status: Completed.

## *Ongoing Studies*

### **96. Ageing and Healthy Intervention in India**

S Irudaya Rajan and U.S. Mishra

This book has five chapters. The introductory chapter titled Demography of Ageing examines the demographics of ageing in India in relation to other socio-economic demographic variables. The second chapter, Economic Dependence and Disability among Elderly in India: Supporting Mechanism and Coping Strategies, discusses the economic dependence and disability of old age persons in India by gender and region. The states with relatively higher economic dependency and disability rate have more burden than other states. In the third chapter, Morbidity among Elderly in India: The Need for Paradigm Shift in Health Policy Regime, the demographic and spatial dimensions of morbidity conditions of elderly in India were examined from an institutional perspective. Using the recent NSSO 71st round data, an attempt was made to examine the prevalence of morbidity and chronic ailment in India by sex, Place of residence and geographic region. The long term old aged health care strategies are being proposed from a life course perspective as the present old aged health condition is a cumulative effect of the health conditions in childhood, adolescence, and adult. The fourth chapter, addressing the need of the Elderly: An Institutional Response, explains the causes and consequences of the changes in the conventional living patterns among the elderly. The fifth and the last chapter of the book explains the Welfare Schemes and Programmes for the Elderly and evaluated the same.

Status: Ongoing.

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

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

Internal migration is often associated with the urbanization and modernization debate in India. The trajectory of migration has taken an interesting turn in the present economy. In India, migration is gendered and also segmented depending on various caste identities. The structural changes in the Indian economy post liberalization made the labour market more informal and accentuated internal migration. Despite migration being visualized as an important strategy to venture out of poverty, migrant groups may be forced into neo-bondage and precarious employment due to continuous debt and brokerage. According to the Economic Survey of 2016–17, the interstate labour mobility between 2001 and 2011 was at an average of 5–6 million, which resulted in an inter-state migrant population of 60 million and an inter-district migrant population as high as 80 million. The growth rate of migrants between 1991 and 2001 (4.5 per cent per annum) was much higher than the workforce growth rate (1.8 per cent per annum). In the period 2001–11, according to Census estimates the annual rate of growth of labour migrants nearly doubled relative to the previous decade, rising to 4.5% per annum in 2001–11 from 2.4% in 1991–2001 (Economic Survey, 2016).

The idea of this book was conceived from the International Seminar on Migration, Care Economy and Development held at the Centre for Development Studies, Trivandrum, during September 17-19, 2014, organized to felicitate Professor KC Zachariah, a doyen of migration studies, on the occasion of his 90th Birthday. The three-day seminar with numerous sessions was packed with papers on migration and development, remittances, gender and migration, tribal migration, student migration, climate change, social networks, growth of the diaspora, and social costs of migration. The book has a comprehensive collection of fifty-six papers, including an introduction by the editors. The book will be an adequate source of reference for students, academicians and policy makers interested in understanding the nuances of internal migration in India.

This book intends to contribute towards improved policy, making relooking at development initiatives and temporary migrants in India. The processes, determinants and outcomes involved in the migration decisions and journeys are intended to be captured through different papers in the book. Migration research is primarily significant as it remoulds human society and also offers a fresh perspective through inter disciplinary research lens. The contributions in this book try to look at the types of migration and the economic consequences of migration, across different states of India.

The Handbook has six sections with fifty-six papers on various facets of internal migration in India. The first section deals with macroeconomic perspectives of migration, the second part talks about state-level perspectives in migration; the third part has papers on migration and caste, migration and gender issues are discussed in the fourth part. Section five deals with migration and urbanization and the last section have papers related to migration policy. Fresh perspectives on internal migration, will help policymakers, 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: Ongoing.

### **98. India's Unskilled Migration to the Middle-East: Policies, Politics and Challenges**

S. Irudaya Rajan and Prem Saxena (International Institute for Population Sciences, Mumbai) (Eds.)

The book is distinct in making available studies on regions and countries that have traditionally been overlooked and have not attracted much academic attention to date. Studies on labour migration from Egypt to the Middle East and from the Philippines to Lebanon, migrant experiences and policy prospects in Saudi Arabia and Lebanon, Indian migration to the Gulf – these are some of the new and original research studies that are included in the book.

This book also brings out several studies that focus on migration from individual states in India. Apart from some new studies on migration from Kerala to the Middle East, the book contains studies on migration from Tamil Nadu, Telugu-speaking states

(Telangana and Andhra Pradesh), Rajasthan and Uttar Pradesh. These are very relevant to the debate since recent studies indicate a shift in migrant trends to the Middle East as low skilled labour migration from Kerala is being gradually overtaken by migration of low skilled labourers from other Indian states. Thus the book fills a critical gap in migration research by studying migration from various Indian states.

New dimensions in research on migration from India are also being studied - an unexpected phenomenon of multiple openings of demographic window of economic opportunity (not documented in demographic literature) observed in a few Arab countries due to heavy return of old-aged migrant expatriates to their home country, the impact of international out-migration on intergenerational educational mobility among children in migrant-sending households in Kerala and forced migration of Kerala Muslims to the Gulf – these are some of the interesting topics included in the book.

With conflict and political instability persisting in the Middle East and the nationalisation policies implemented by the Gulf countries, timely research studies are essential in order to evolve informed policies to deal with migration. The studies included in this edited volume are crucial contributions to the growing literature on migration and will be of immense academic interest to scholars, policymakers and other relevant stakeholders. With its wide array of country-specific and region-specific studies, the book will be an indispensable addition to libraries across the world.

Status: Ongoing.

### **99. Asianisation of Migrant Workers in the Gulf Countries**

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

This edited volume contains 16 chapters by eminent scholars on one of the largest migration corridors in the world, ie. that between South and South-East Asia and the Gulf region. Asia's trade and cultural contact with the Gulf dates back to ancient historical times. Most recently, since the 1970s, the economic rise of the Gulf Cooperation Council (GCC) countries owing to the discovery of oil has inspired a huge influx of migrant workers from Asia. At present, out of roughly 15 million expatriates in the Gulf region, Asians constitute around 12 million (80 percent).

The content of this book may be cross-sectionalised based on two notions- countries, both of origin and destination, and economic, political as well as social issues that cause and affect migration. The chapters in this book look at migration from the countries of India, Sri Lanka, Bangladesh, Pakistan, Indonesia and the Philippines to the different GCC countries. A few chapters also focus on migration from the India state of Kerala- a state where migration to the Gulf is prominent and where remittances make up over 36 percent of the state GDP. Furthermore, the issues covered range from labour practices and policies, citizenship and state protection, human rights, gender and caste as well as diaspora.

This book explores the multifaceted nuances of the 'Asia-Gulf migratory corridor' and unearths future prospects and strategic implications. The book examines remittance



behaviour, changing gender roles of immigrants, social-spatial mobility, migrant policies, human rights, sense of belonging and identity and perception, and the interaction between nationals and non-nationals. The book is a good amalgamation of research using various tools and methods employed in the study of migration. While discourses and essays are articulated in the monograph, empirical studies are discussed using graphs and tables. This clear and concise work will inform readers on the latest research into the most pressing issues in the field of migration by studying the phenomenon in a corridor that is of extreme importance, both economically and geopolitically.

Status: Ongoing.

### **100. Household Demographics of India**

Udaya Shankar Mishra and Sanjay K Mohanty

*Why this is important:*

Demographic measures are largely individual-centric, whether it be fertility, mortality or migration where the denominators are always individuals. For instance, in case of fertility either it is population in crude term or women in reproductive ages to define force of fertility. Similarly, in case of mortality, it is again the population or individual of specific age/sex to describe the risk of survival. Finally, in-migration too, it is expressed for thousand individual. This predominance of individual-centric demographic measure is limited in term of their implication for households. This is despite the fact that individuals belong to households and individuals attribute in term of age, education occupation, migration status have their own implication for the household wellbeing. However demographic analyses of households remain limited to reading its size composition and not beyond. The prime motivation of understanding household demography originates in the visible realities of Indian household in transition as a consequence of demographic transition. Lower level of fertility and extended survivorship has not only given rise to a transformed age structure of population but also has its own implications on the households and their transition from extended to nuclear, household in absence of children, in absence of elderly, in absence of reproductive age women etc. This unique feature of emerging households should be of greater interest not only for demographer but also for programme and policymakers owing to the fact that programme provisioning and targeting is always at household level. Once we recognise the household with certain features than they can be targeted in terms of need and vulnerability they may have in relation to various provisioning that the state wishes to make. On this premise, we propose a manuscript on household demographics with the following structure.

#### **1. Size structure and composition of Indian household**

With experience of demographic transition the most apparent visible pattern has been the observed reduction of average household size otherwise termed as family nucleation. This tends to indicate households with number of couples decreasing over time. This particular exposition of nuclear and extended households or bigger and small size households does not make enough sense to convey the dynamics underplay to imply

welfare differences thereof. Therefore an exhaustive analysis of size structure and composition will elaborate on the presence and absence of children, adolescents, reproductive-age women, couples and elderly within the household. Structure and composition need not merely be informed on this pattern but also the implied welfare derivative given the composition of dependents to economically active members. Further, the described composition of the household informs on the demand for care, levels of surplus etc. that has a bearing on the differential state of welfare between households.

## **2. Dependence and co-resident pattern**

Indian census, as well as other large scale surveys, offer a lot of information on the household base that ranges from distribution of children to that of employed individuals to number of elderly to number of literates etc.. Here households with number of employed people gives an indication of differential level of welfare as the burden of dependence is apparent from the division of employed versus unemployed in household. Similarly the aspects of co-residence with individuals young and old, married and unmarried makes an ideal condition. Any departure from this creates its own adversity, for instance, elderly living with elderly, all women households, or all adult households. This may sound to be rarer, but with ensuing familial transition, these features are becoming more general than specific.

## **3. Household facet of marital status**

While marital status analysis is largely individual based there is hardly any focus on the concentration of individual with adverse marital status(widow /divorced/separated) within the household. Marital status distribution among household member exposes co-residence of different generations and the support mechanism between them in an ideal household. For instance, single-member households could very well be either single or widowed. At the same time, accommodation of adverse marital status individuals such as widows/widowers within the household would imply the benefits of co-residence and welfare.

## **4. Gender work and households**

There is overwhelming evidence to indicate that women work participation is largely conditioned by not their individual attribute but the household conditioning that encourage/discourage their participation in economic activities. In this perspective, it is pertinent to investigate the household conditioning that encourages work participation of women. While it is known that men are considered as bread earner and women's economic engagement is supplementary or complimentary at the best, it is important to differentiate households with working women and household without working women. Household conditioning essentially refers to the aspects of dependence, the need for care provisioning and the generations with their own perceptions. This aspects of conditioning analysed for Indian households will go a long way in explaining various gender outcomes like work participation of woman, health care utilisation by them as well as decision making.

## **5. Generations and household**

As regard household transition, there is evidence regarding nucleation of the household. But this does not necessarily inform on households with multiple generations. In fact, examining households from the prospective of generations has numerous bearing beyond the co-existence like understanding behavioural transition use of technology and adoption mechanism. If we can segregate household by one two and three generations co-existing,

it offers a clue towards understating household splits because this says the realities owing to rise in mobility in recent times. Availability of two generations within a household ensures its own support system transfer of values as well as adoption changes which happen with changing times.

#### **6. Educational distribution of household members**

Although education is an individual attribute, its benefit extends beyond the individual, and particularly it has a bearing on the other members of the household. Educational externality can be viewed from a range of perspectives like proximate gains, gender composition as well as generational differences in levels of education. It is obvious that the younger generation within a household will have relatively higher levels of education, therefore the highest level of education within a household better describes the kind of externality benefits it can generate for other individual members of the household. In fact, educational levels of all individual members need to be read conditional upon the available highest level of education within the household. Further, distribution of educational level of household members conveys another crucial facet of education expansion, i.e. clustering of better educational level in select set of households which otherwise leads to concentration of this vital capability component. Hence reading educational distribution within the household becomes pertinent to expose aspects of proximity as well as endowment concentration.

#### **7. Occupation/income structure and household**

Occupational profile within a given household assumes significance for a range of perspectives given that a significant share of occupation are of informal nature and unorganised sector of employment has a lion share of the Indian labour market. Regular job holders are a rarity, and their presence within a household makes a big difference to the kind of solvency/credit worthiness and resilience of the household. Also, presence of varied occupation within a household conveys diversity and occupational mobility across generations that can be gauged through analysis of occupational details of Household members. Given the understanding that women's engagement in paid activities makes incremental welfare addition, differentiating households with working women from the rest may explain the differences in welfare dividends. The occupational feature of Indian households may well be used to infer on their economic status

#### **8. Pattern of health spending in the household**

Health-related vulnerabilities are age conditioned and therefore households will vary as regard this vulnerability depending on the presence/absence of individual of specific ages. In the wake of rapid fertility transition and survival gains, we find households without children and at the same time households with all elderly as well. Such skewed distribution of household with or without children as well as with/without elderly makes them differentially vulnerable to health spending. Health spending is also shaped by the economic capacity as well as choice of health care utilization and health-seeking behaviour of households. Degree of health spending along with its source of financing at the household level is pertinent to locate the vulnerability of households to health spending, but it is also important to discover on whom such spending is made. Apart from differential vulnerability and economic capacity, household health spending is also conditioned by chronically ill within the households.

Status: Ongoing.

## *New Initiatives*

### **101. Kerala Diaspora, Analysis of their Contribution to Kerala's Economy**

Sunil Mani and KM Chandrasekhar

*Sponsor:* To be submitted to the research programme, "Kerala and the World Economy."

Given essentially the limited employment opportunities, Kerala has experienced a continuous migration of its citizens to the rest of India and abroad as well. One of the important destinations for Keralites to migrate is the Middle East. Initially, low skilled workers characterized the migration to this region, but skilled workers have now slowly replaced this. There are two important dimensions of this skilled migration. First, it is not permanent as obtaining citizenship in the Middle Eastern countries is almost impossible. Second, most of the migrants have their dependents back home to which they were remitting their wages and salaries primarily for family maintenance. According to the surveys on inward remittances conducted by the RBI, Kerala is the largest remittance-receiving state in India. In the context, the paper undertakes first an estimation of the quantum of remittances to Kerala and the uses to which these remittances are put to. Apart from the remittances, another intangible contribution of non-resident Keralites have been in providing knowledge in state-of-the-art retailing of consumer products and in the construction industry. Further, their presence in the Middle East has also promoted India's trade in commodities to this region with UAE emerging as one of the major destination for India's exports. The study is largely based on the annual surveys of inward remittance to the country conducted by The RBI.

Status: New Initiative.

## **RESEARCH PROJECTS**

### *Completed Projects*

### **102. Kerala Migration Survey, 2018**

K C Zachariah and S. Irudaya Rajan

*Sponsor:* Department of NORKA, Govt. of Kerala and REALM

KMS 2018, is the eighth in the series of an ongoing migration monitoring study being conducted by the Centre or Development Studies. KMS has a 20-year history. The first survey in this series was conducted in 1998 and is continued at an interval of 5 years. Also, the study also maintains a panel data for 10000 households since 1998. KMS 2018, was financed by Government of Kerala: Department of NORKA, Research and Empirical Analysis of Labor Migration of Interdisciplinary Centre for Innovation Theory and Empirics of Columbia University, United States of America, World Bank, and the World Economy Programme of the CDS.

The preliminary work for KMS 2018 started in October 2017. The survey started on 1st January 2018 and ended on 31st March 2018. The survey was done through stratified multistage random sampling. The survey examined the demographic and socio-economic characteristics of emigrants, return emigrants and non-resident Keralites across all the 14 districts of Kerala. The study also looked at the primary reasons for return migration and impact of the localization policies and the oil crisis in the destination countries. The objectives of the study are to estimate the volume of emigrants, return emigrants and non-resident Keralites by 14 districts of Kerala; To examine the demographic, socio and economic characteristics of emigrants and return migrants along with their educational and employment profiles; To make an estimate of remittances to Kerala from abroad; To examine the primary reasons for return emigration to Kerala and to assess the impact of both localization policies and the oil crisis in the destination countries (just Gulf region); To identify the major issues and challenges faced by workers from Kerala at the destination countries; To identify the skills that are acquired by the return emigrants according to their job categories and to utilize their experience for the development processes in Kerala; and To develop a suitable rehabilitation program for return emigrants in consultation with the Government of Kerala.

The emigrants per 100 households show a decline since 2013. The Malappuram district has the maximum proportion, and Ernakulam has the least. Malappuram is leading with 42.1, followed by Kannur (38.8), Kollam (32.8), and so on. Malappuram has been the highest migrant sending district. The district also has the maximum number of emigrant population with nearly one-fifth of the total population. The second top district Kannur also has a good number of emigrants from last one decade followed by Thrissur (11.4); Kollam (11.3). The percentage growth of the district emigrants has increased rapidly since 2008. The districts from the bottom list, Idukki and Wayanad are continuing the same but also showing slight growth in percentage share from the total emigrant population. The top emigration is the gulf region, with 89.2 percent of the total migration. Remaining 10 percent of the emigrants are concentrated in the other countries like the USA, UK, and Australia, etc. There is a slight decrease from 2016 to 2018 for the Gulf with a small decline for UAE, in contrast, the slender growth of other Gulf counties compensates not to reduce much in the total Gulf number. But compared to last five, the emigrant population is showing a significant decline. There is no doubt UAE is the favourite destination for Keralites from the beginning and 2018 also not different from that. About 1.89 million emigrants are residing in the Gulf countries.

Decreasing emigration from Kerala can be due to the cumulative effects of the following reasons: 1. Demographic changes have decreased the population in the migration prone age group (15-29 years). Kerala attained replacement level of fertility in 1987. Since then, working-age population in Kerala has grown at a decreasing rate. 2. Wages in the gulf economies are on a decline. This has led to lower savings for emigrants. 3. Wages in the domestic economy have increased. City-based development and opportunities in the informal sector have increased as a result of which people tend to stay back. 4. The price of the oil- commodity on which the gulf economy is based- has been declining since 2010. Although the last year has seen a slight increase in oil price, the growth of the gulf economy has suffered a major setback. 5. Nationalization policies in the GCC economies

are not conducive for non-nationals. Policies like Nitaqat and family taxes impose a huge burden on these emigrants. 6. Decades of investment in education has made Keralites skilled. High skilled people migrate to other parts of the world (mainly the developed economies in the West) owing to better opportunities.

KMS 2018 has confirmed the trend that was observed in the last round – that emigration from Kerala is falling and return migration is on the rise. The long history of migration from Kerala to the Gulf is in its last phase. However, remittances to the state have increased. This is due to the fact that Keralites in the gulf have climbed the social ladder and are earning higher wages, allowing them to remit more. Thanks to the weakening Rupee, families in Kerala remit more.

Finally, it is time to contemplate on the pronounced change that migration has brought to the social fabric of the state. During the earlier days, migration helped reduce income, wealth and socio-economic inequalities in Kerala. It also levelled class structures, social hierarchies and differences in religion and caste. However, today, there is a feeling in Kerala that migration is widening these differences. It is also true that the social cost of migration is gaining influence in public discourse. Women, children and the elderly left behind deal with many issues such as loneliness, anxiety and depression. Family planning is harder among migrant families and has nudged fertility rates in Kerala on a downward spiral. Return migrants also suffer from many ailments owing to their difficult working conditions in the Gulf.

Status: Report submitted to the Government of Kerala.

### **103. Demography, Migration and its Impact on Kerala Economy**

*Sponsor:* ILO, New Delhi.

S. Irudaya Rajan, U. S. Mishra and K C Zachariah

Four policy papers were developed on the themes such as Demographic Dynamics and Labour force; Migration (Internal); Migration (International) and Impact on Kerala economy. The first paper explains the distinction and specific features of demographic structure, examining the policy interventions, consequences and future prospects. It also examined the half-century trend in age-sex composition of the Kerala population and projecting the future. Further, it investigates the changing structure of marital status composition; the youngness lost in Kerala's working population and its impact on labour force; dependency structure and duration of working years and household size, composition and its transition.

Second paper conceptualizes the internal migration, trends during the last four decades and its implications on age structure. It also explains the changing trends in mobility in India and the distinction of Kerala, based on Census and National Sample Surveys. It also describes the intra-state and inter-state migration pathways, internal migrants from and to Kerala and its reasons, streams and durations. It highlights the consequences of internal migration in the light of household structure and remittance receipt.

The third paper basically envisages the trends and pattern of international migration based on the Kerala Migration Surveys done from 1998 to 2016. Before that, it travels through the history of international migration in the post-independence era of India and a historical review of Kerala. The paper investigates the consequences of migration in the households of Kerala, remittances and its impact on the Kerala economy.

The last paper is a policy brief on the impact of mortality and fertility transitions in Kerala on migration and implications for the state's economy. The available estimates indicate that migration to Kerala from other states has either surpassed or is on the verge of overtaking the quantum of migration from Kerala. Kerala now has the opportunity to diffuse its much-acclaimed social development to some of the most deprived regions of India while these workers help the state tide over the worsening human resource crisis.

Status: Completed.

#### **104. Kerala Migration Survey 2018 Panel Surveys**

*Sponsor:* REALM

S. Irudaya Rajan and K.C. Zachariah

This survey is in continuation of the periodic surveys which were conducted in every five years from 1998. In other words, since 1998, it monitors the emigration scenario at regular intervals of 2003, 2007, 2008 and 2013. This year there were ten-panel lists of households which explored the changes and trends involved in the same households at different points of time. The primary objectives of all these studies were to provide estimates of emigrants return emigrants, Non-Resident Keralites (Emigrants plus return emigrants) and remittances and assess the impact of migration on individuals, economy and the society in Kerala. The survey started in May 2018 but delayed due to the floods in Kerala and completed by December 2018. Data entry has completed, and the data is available in the public domain. 7830 households from 190 localities, comprising of ten panels, were surveyed. The panels run between major combinations of surveyed years from 2013-2018 to 1998-2003-2008-2013-2018.

This study focused on the household level data to comprehend the impact of migration on the household dynamics in Kerala. The following core questions underlying migration and its extent of influence on the socio-cultural and economic processes in the State: How has the household composition and dynamics evolved over the years with regard to the patterns of mobility over a decade and a half? Is there any empirical evidence to substantiate transformation of household type? Whether the households have undergone through changes in the standard/ quality of living or in the possession of consumer durables (assets)? And It also tries to analyse the improvements (or lack thereof) in these households over the chosen period of time. The preliminary findings were presented in Abu Dhabi in the presence of the REALM researchers.

Status: Completed.

## *Ongoing Projects*

### **105. 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

It is now well known among policymakers and scholars that about 3.5 percent of the 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 of 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% 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.

After the first round of surveying in 2016, when 2000 migrant households were surveyed, incentives to 500 households were transferred. The mid-line survey, which will mainly measure responses and attitudes towards investment of remittances, will



start shortly. The end-line survey, which will assess changes in consumption and expenditure patterns, will start next year.

Status: Ongoing.

### **106. Flood and Migration in Kerala**

*Sponsor:* REALM

S.Irudaya Rajan

This study aims 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 – are determined. Furthermore, this study would give 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. Policy recommendations such as diversification of assets, utilization of social networks, and improved data collection and management are expected outcomes. This survey follows the methodology of KMS 2018 survey. A subset of the total sample from KMS 2018 is selected. From this subset of 1200 flood-affected households will be selected for this survey. 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 is 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 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 extent 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 idea behind this selection is that the study can compare before and after the flood situation in these areas, and this is a unique feature. This is the first study where households are surveyed preceding the disaster as well as after. Post survey checking of questionnaires will be done by research staff at CDS. After data has been entered into an electronic format, outliers will be rechecked and verified again by matching with the respective questionnaire.

Status: Ongoing.

## **(j) PLANTATION CROPS**

### ***Completed Studies***

#### **107. Setting the Prices Right? An Empirical Analysis of e-auction in Cardamom**

K.J. Joseph and Kiran Kumar Kakarlapudi (Post Doctoral Fellow, NRPPD)

Towards addressing the equity and efficiency deficit associated with the conventional auctions with open outcry method, the Spices Board introduced the e-auction in 2007 for cardamom. Though the e-auctions ensured anonymity of buyers and sellers, human interventions appears to remain because the lots are not auctioned at random, instead as decided by the auctioneer. There has also been increasing incidence of re-pooling wherein the lots once sold getting re-auctioned in subsequent auctions by the dealers and auctioneers. Further, there has been an increase in the bid-rate after the introduction of e-auctions. In this context, this study is an attempt to analyze the equity and efficiency implications of the process of price formation under e-auctions with higher bid rate, prevalence of re-pooling and auctioneers' interventions in e-auctions. The study finds that the introduction of e-auction brought out significant changes in the price formation process. There has been significant decline in the extent of concentration at the level of bidders and significant reduction in the price variation across different lots sold through e-auctions. Higher concentration at the level of auctioneers notwithstanding, its impact on price was found positive in 2010, whereas in 2018 the concentration had a dampening effect on price. This tends to suggest the need for removing entry barriers, especially for farmers' associations, for acting as auctioneers such that the market is made more competitive. Two other important findings from the study with implications for policy are the following. First, the high incidence of re-pooling prevailing at present is found to have an adverse impact on prices. Hence there appears to be the need for minimizing re-pooling such that actors shall not make use of e-auction as a platform for arbitraging. Secondly, increase in the bid rate seems to have had no significant effect on price realisation.

Status: Completed.

#### **108. Constraints to Diffusion/Adoption of Innovations in Natural Rubber: Study of Tapping Practices and Rain Guarding**

K.J. Joseph and Kiran Kumar Kakarlapudi (Post Doctoral Fellow, NRPPD)

There is significant evidence in the literature on the positive contributions of innovation like Low-Frequency Tapping (LFT) rain guarding and Controlled Upward Tapping (CUT) towards increasing productivity, reducing cost of production, achieving longer tapping life and addressing diseases like Tapping Panel Dryness. Yet, the adoption of these innovations remains at a low level. There is also inter-regional variation in the extent of adoption with Trivandrum being the lowest. What accounts for the observed poor performance? Our enquiry suggests that there is serious information deficit along with knowledge gap notwithstanding the various efforts made by the Rubber Board. In the context of serious knowledge deficit, risk perception regarding innovation is highly

prevalent that stood in the way of the adoption of innovations. A large proportion of growers, especially from Trivandrum, are unsure about the beneficial effects of the innovations under consideration. Labour factor also emerged as a major stumbling block. The apparent ineffectiveness of initiatives like labour bank needs to be seen against the fact that for seamless transfer of workers from one holding to another, there is the need for upgrading and standardizing the tappers' skills to ensure that growers do not perceive any risk in assigning his holding to any tapper from the bank. To the extent that tappers bank is not significantly effective to tend to suggest that success of tappers bank presupposes significant investment by the rubber board for training

Further, it was transpired that when the sector has been in crisis and the innovations not getting diffused, there is the need for more effort to generate and diffuse information and knowledge. Evidently, there has not been any significant increase in the allocation for the Board concerned, instead of a decline in real terms. Hence, the study points towards the need for more concerted and targeted measures from the diffusion agents towards more intensified extension efforts, so that information and knowledge deficit of growers and workers with respect to these innovations are addressed sooner than later. To the extent that the labour factor is a crucial constraint in the diffusion innovations like LFT and CUT, the relevance further strengthening the organizational innovations like labour bank to address the labour-related issues cannot be overemphasized.

Status: Completed.

### **109. The Harvest is Plentiful, but the Harvesters are a Few? An Exploration of the Below Potential Production of Natural Rubber in Kerala**

K.J. Joseph and Kiran Kumar Kakarlapudi (Post Doctoral Fellow, NRPPD)

This study explored the factors underlying the below potential production of natural rubber in Kerala. The issue has been articulated as an outcome of the inter-play of certain unique characteristics of natural rubber; a) scope for harvest postponement since the crop, if not harvested, is not lost forever b) the farmers' option to set a reserve price along with the institutional context in which the farmers operate. It is observed that 17% of the rubber holdings in Kerala are not found tapping, and the correlation between days tapped and production/ productivity is high. Refraining from taping has been attributed to lower price, labour-related factors and the expectation of higher price in the future. Rain guarding, however, helps farmers tap a larger number of days. The productivity of those growers depending only on hired labour is found to be lower as compared to their counterparts who depend only on family labour or both hired labour and family labour. Econometric analysis indicated that there are a number of farmer-specific factors that act as a dampener to tapping and productivity. Given their access to other sources of income, many of the farmers tend to have a higher reserve price, even higher than Rs 150 assured under the RPIS, which induce them to keep away from tapping, which in turn explains less than potential production of rubber in Kerala. Even the RPIS seems to have not been effective in inducing them to utilize their full capacity. In such a context, the strategy shall be to enable those growers to appropriate a larger proportion of the value of the output by moving up the rubber value chain. This will necessitate a major change in the

current approach towards rubber-based development by reaping the backward and forward linkages and evolving a broader innovation system in place of one that focuses mainly on increasing productivity and production. In the short run there is scope for increasing production *inter alia* by addressing labour-related issues – *a la* the labour bank initiative of Rubber Board and propagating rain guarding, *a la* the recent MRF-Rubber Board initiative. In this process much could be gained by further strengthening the RPS and inducing them to take over absentee holdings and holdings where rubber a secondary activity. To the extent that large majority of the farmers would have tapped even without RPIS, it is of relevance to explore the possibilities of making use of the current budget allocation for RPIS towards evolving a rubber-based development with a broader perspective. This will *inter alia* involve State participation and facilitation in evolving vibrant rubber-based industrial sector by bringing together different stakeholders.

Status: Completed.

### ***Ongoing Studies***

#### **110. Diffusion/Adoption of Innovations in Coffee: A Study of Chandragiri Variety**

K.J. Joseph, P.K. Viswanathan, (Amritha Institute of Management, Kochi) and Sajitha A.

In the light of the decline in the yield of Arabica variety of coffee *inter alia* on account of the high incidence of white stem borer and leaf rust disease, the Central Coffee Research Institute (CCRI) in India introduced a new variety called Chandragiri. This study attempts to analyse the diffusion pattern of Chandragiri variety by the coffee growers and the factors underlying the observed pattern. The field survey conducted in three major coffee growing regions in Karnataka (Chickmagalur, Hassan and Kodagu) showed that about 50 per cent of the sample growers have adopted Chandragiri variety with considerable interregional variations. The extent of adoption is found to be the highest in Chickmagalur (61%), followed by Kodagu (55%) and Hassan (33%). With respect to the pattern of adoption, the majority of them have partially adopted (91%), and full adopters are only about 9%. An econometric analysis using logistic regression identified certain factors that provide plausible direction for future policy interventions for upscaling the adoption of the variety. The main areas of concern pertain to production, management of diseases, labour shortage, seed provision at subsidised rates, strengthening the extension support and IT-enabled information delivery services, setting up of testing labs, revamping the marketing and trade support systems for increasing the share of small coffee producers in the value chain, etc.

Status: Ongoing.

#### **111. Post-harvest Issues in Spices: Study of Coriander and Cumin**

K.J. Joseph, S. Mohanakumar (IDS Jaipur)

Considering the significant export potential and export-oriented employment generation on the one hand and the imperative of adhering to the quality standards for reaping the export potential on the other, present study explored the post-harvest issues in case of

cumin and coriander. It also explored the production conditions as it also has a crucial bearing on the price realisation as well as quality of the product. The study is based on the primary survey in Rajasthan and interaction with different stakeholders along with the secondary data available from Spices Board. The study highlights several issues in the processing and marketing of cumin and coriander, with implications for policy. To begin with, there is empirical evidence to suggest that the potential for expanding production is significant. However, there are debilitating production conditions like credit market-product market linkages that need to be addressed as it leads to lower price realisation. The processing at different levels needs improvement, as the existing practices tend to undermine quality. Awareness about the imperative of maintaining quality standards as well as the infrastructure for quality testing needs much improvement. Traders in the specialised markets are practising visual grading as an important strategy to undercut the price. A large majority of the growers in both crops are not aware of the Spices Board initiative to provide polythene sheets at a subsidised rate

Much of the output is sold through the auctions involving open outcry method, which is dominated and controlled by traders with little scope for a fair deal for farmers leaving much scope for improvement. Here much could be learned from the e-auction in cardamom after addressing some of its weakness. It is evident that both production conditions and the post-harvest issues of coriander and cumin in India are more or less the same. The Logit regression models revealed that market infrastructure is an important factor influencing the decision for farmers to sell in the specialised markets for Cumin and Coriander. For Cumin, market distance dissuades farmers from selling in the specialised market. On the whole, there is an immense opportunity for improving the farmer-unfriendly conditions that prevails at present which will call for collaboration of the species board with the state-level agencies dealing with the production, processing and marketing of these crops. This, in turn, could attract more farmers to the cultivation of these crops, leading not only for enhanced foreign exchange earning but also to improved livelihoods inter alia through export-oriented employment generation. Once remunerative prices are assured and farmers have sustained interest in these crops, organisational innovations in sync with rubber producers societies could be initiated which could serve as a catalyst for the much-needed change.

Status: Ongoing.

## **(k) POLITICS AND DEVELOPMENT**

### ***Completed Studies***

#### **112. Is Nepotism Inevitable Under Search and Matching Friction?**

Rajit Biswas and Debojyoti Mazumder (IIM Indore)

The present article develops a search and matching framework to model political nepotism in the job market. The model argues that labour market friction generates incentives for the political leaders to provide nepotism under a democratic setup. Both the leaders optimally choose nepotism when the labour market friction is higher. It is shown

that even for a relatively lesser labour market friction, at least one leader would always choose nepotism. The results of the basic model remain robust in an extension where followers can pay a price and choose their allegiance, to any one of the political parties.

Status: Completed.

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

Ritika Jain

Corruption has been identified as one of the serious problems that most countries face today (IMF, 2016). Existence and widespread prevalence of corruption distorts competition, reduce incentives and hence impair development. These inefficiencies have received sharp public attention, which has led to moral outrage in various contexts. This has paved the way to a greater emphasis on tackling corruption at the global level in a more proactive manner (IMF, 2016). The issue of corruption in the academic literature, however, has received considerable attention for a long time. One of the most researched aspects related to corruption is its impact on economic performance. There are two opposing strands of literature on this issue- select studies focus on how corruption acts as a bridge “greasing the wheels” of commerce between operations and rigid laws, weak institutions and complex bureaucratic formalities (Lien, 1986; Huntington, 1968). Contrasting to this view, another parallel strand of literature consider corruption to “sand the wheels” of commerce due to creation of disincentives, inefficient rent-seeking behaviour, misallocation of productive resources and creation of uncertainties (Shleifer and Vishny, 1993; Kauffmann and Wei; 2001).

At a more conceptual level, one of the most complex issues revolving corruption is its definition and measurement due to its concealed nature. This study uses the definition that has been widely accepted by the International Monetary Fund, World Bank, Transparency International and the provisions of the United Nation Convention against Corruption. According to that, corruption is defined as “the abuse of public office for private gain” (IMF, 2016). The issue of measuring corruption is tackled by focusing on bribes in most empirical studies. Bribery is defined as the act of offering and/or being requested to offer informal payments or gifts by public officials for some official task.

Finding data on bribery is a daunting task because of possible reluctance of firms to accept engagement in bribes on moral and ethical grounds. However, according to Kaufmann et al. (2006), gathering information from relevant stakeholders, tracking countries’ institutional features and careful audits of specific projects may help in the measurement of corruption. The current study relies on one of the most widely used datasets related to corruption and bribery- the World Bank Enterprise Survey (WBES) data. The WBES is a comprehensive survey spanning 131,000 firms across 139 countries with data on financial performance, business environment and business-government relations. One of the most contentious issues around corruption and bribery is the unreliability and vagueness of the perception as opposed to the objective reality of it. Kaufmann et al. (2006) suggest that no measure of corruption- subjective or objective is accurate. To minimize errors associated with measurement of corruption, perceptions are relevant and meaningful due to the secrecy and

concealed nature of bribery. Since these firms operate in an environment that has corruption engrained in it, the best possible way is to enquire these entities. Firm surveys done by the World Bank capture the ground realities of business-government relations since the questions span from enquiring about informal payments paid for acquiring export or operating licenses to judicial rulings. Additionally, the correlation between corruption ratings from other global corruption measures and WBES measures are very high.

Against this background, the current study aims to explore the effects of bribery on firm performance in India. The focus on India is based on the widespread corruption in the country. Further, the study builds on the Acemoglu (2006) view of bribery as a profit tax, which is in the form of a “vertical transfer” from businesses to states, creating rent-seeking incentives for both agents. The current study captures bribery as the conscious involvement of the top management and owners of the firms in offering/ accepting the request of bribes of government officials. This is in line with the bribery definition used by Sharma and Mitra (2015). The study captures firm performance by using three standard accountancy measures – profitability, productivity and export performance.

While there is a plethora of studies examining economic factors and its interaction with corruption, recently there is some discussion on the political system and interaction with corruption. Electoral systems and political regimes are important when examining corruption since the government, and hence, the party in power is one of the agents that are common to bribery transactions. In this paper, we follow an argument that the absolute ideological positions of parties that are in power and the role of close versus huge margin elections shape the environment for bribery as well. The channel between ideology and corruption is similar to Hessani (2015). Since the right leaning party members have stronger connections and more frequent interactions with businesses, the prospects of corruption will also be higher in such states. This is because turning down bribes or acting against corruption will lead to a strong backlash by these corporate houses in terms of political party funding. Thus public officials from right-wing parties will have a lower probability to stand up against corruption. Further, since bribery is a secretive and illegal activity, right-leaning states serve as a better breeding ground due to the mutual trust and reciprocity involved.

The relation between the closeness of elections and corruption is borrowed from Kunicova and Ackerman (2005). In states with close elections, parties in power have a more serious trade-off between accepting bribes and future wins. Thus, rent-seeking behaviour is more costly in such states. Additionally, political opponents also behave more competitively, monitor incumbents and look for opportunities to uncover corruption. Thus in a country with weak institutions and governance such as India, a close election may be an effective tool for the opponent party to monitor and act as a vigilant guard for corruption. The study takes explicit account of the two specific characteristics of the political party in power to account for the political environment prevailing for businesses and policy formulation at the regional level.

To test the objective, the study employs firm-level WBES data for India in 2013-14. Since the relationship between firm performance and bribery may be endogenous, the study adopts a two-stage least square estimation with relevant instruments that affect bribing decisions

but not firm performance. The findings of the study are that firm performance is driven by both internal and external factors. Specifically, bribing by Indian establishments “sand the wheels” of business leading to lower profits, productivity and export performance. This result resonates with the negative effects of corruption in other studies such as Raj and Sen (2017) and Sharma and Mitra (2015).

The rationale for the widespread prevalence of corruption despite the negative effect on performance is attributed to the cultural effect of corruption in India. In a case study by Bertrand et al. (2007), the experience of Indian corruption is best described as the “endogenous red tape” which emphasizes that many bureaucratic hurdles may emerge due to the distorted rent-seeking behaviour of public officials (Shleifer and Vishny, 1993). Further, the negative spillover of widespread corruption is firms spending on bribes and hence diverting productive resources from performance improvement. This bribing culture distorts economic incentives and hampers performance.

Further, a right-leaning state government and a low political competition boost performance for firms operating in that state. This suggests the state political environment has a strong bearing on firm performance. Additionally, the study uses a modified version of instrument variable estimation to take interactions of the endogenous variable (bribery) with ideology of the government and political competition in the most recent and finds partial validation.

Status: Completed.

#### **114. The Impact of Ideology on Disinvestment Decisions of a Coalition: A Game Theoretic Analysis**

Ritika Jain with Shubhro Sarkar (IGIDR)

We build a two-stage game-theoretic model to capture the effect of ideologies of parties in a coalition on disinvestment decisions. We focus on three specific aspects of ideology—ideology score of the coalition, ideology dispersion of the coalition, and ideology difference between the centre and the state where the enterprise is located. The benchmark two-party coalition predicts that a left government prefers less disinvestment than a right one more often than not. However, there may be a case where moving toward the left end of the ideology spectrum may raise disinvestment incidence. Similarly, a coalition with ideologically similar parties favours privatization more frequently than one in which parties are more diverse. However, for a narrow parametric range, the effect may be reversed. Low ideological difference between the centre and the state in which the enterprise is located improves disinvestment incidence. Finally, we extend the model to three-party coalitions.

Status: *Public Finance Review*, 46(5), 821-849 (2018).



## *Ongoing Studies*

### **115. 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.

### **116. Revisionism: The Game of Filling in the Marxian**

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.

## *New Initiative*

### **117. Political Economy of Forest Produces: Experience from Kerala**

Abhilash T

Occupationally, tribal communities can be classified into two categories, i.e., settled agriculturists and hunter-gatherers. Among them, the livelihood of hunter-gatherer

communities in every state is largely depending upon forest, and its produces. In Kerala, apart from the five Particularly Vulnerable Tribal Groups (PVTGs)—*Kattunayakan, Cholanayakan, Kadar, Kurumbar and Korga*—there are few other communities also forest-dependant for their livelihood. Collection of honey, dammer, incha bark, and other economically valuable produces play a significant role in their livelihood and survival. However, it seems, the role of tribal communities are marginally less in the process of collective procurement, pricing, sale in the open market, and auctioning of the forest produces

Meanwhile, progressive legislations like The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of *Forest Rights*) Act, 2006, popularly known as Forest Right Act, 2006, ensures that the tribal village assembly, *oorukootam* in Kerala, has the supreme authority over the forest produces in the forest areas. The preliminary level field survey among the above-mentioned forest-dwelling tribal communities who live on the forest-clad hills across the western ghat region of Kerala shows that the procurement and sale of the Non-timber forest produces (NTFP) are largely controlled by the forest-department driven Eco-development committees (EDC) and *Vana Samrakshana Samiti* (VSS), in which the role of tribal communities seems to non-existent. Surprisingly, there is no common pricing mechanism being followed for the NTFP across the states, and lack of a proper profit-sharing mechanism often make these institutions prone to bureaucratic corruption and malpractices. Therefore, this minor research project will examine the aspects related to the NTFP collection, procurement and sale and specifically look into the research question; how far the existing mechanism of NTFP business is benefiting to the forest-dwelling Adivasi community in the context of Forest Right Act, 2006 in Kerala by analysing the fact that how far the existing mechanisms and process of NTFP business is in consonance with the FRA norms and regulations. Beginning with the role of NTFP in the livelihood of forest-dwelling communities this study will critically examine the existing mechanisms for the procurement and sale of the NTFP in three different geographical locations of the state, preferably *Malaipandaram* in south, *Kurumba* in central and *Kattunaikar* in north. Further, this study will explore the process of NTFP business at the VSSs and EDCs to understand the role of tribal communities in the entire process and profit-sharing because at present the office bearers of these institutions are largely occupied by forest officials where the voices of the tribals are often overlooked. Tribal rights over the extraction of bamboo—as a major forest produce—is prohibited in a state like Kerala where as Maharashtra has already issued right to tribal communities to procure it under FRA, 2006. But states like Kerala still considers it as ‘timber’ even after the central government passing a landmark legislation in 2018 that termed bamboo as grass. In conclusion, this study will suggest few policy measures for NTFP business in the state which will be beneficial for the communities who procure it. As far as methodology is concerned, this study will be based on ethnographic field research.

Status: New Initiative.

## OTHER STUDIES

### *Completed Studies*

#### **118. The Many Incarnations of Kuriyedathu Thatri', Afterword to the English translation of Madampu Kunhukkuttan's *Bhrasht***

J. Devika

The essay introduces the readers to the legend of Kuriyedathu Thatri and reads it within the history of early 20<sup>th</sup>-century social transformation in Kerala, and the churnings within the powerful Malayala Brahmin community of those times.

Status: Published in Aleph Books, New Delhi, 213-222.

#### **119. Towards Reparative Readings: Reflections on Feminist Solidarities in a Troubling Present**

J. Devika

The present is a peculiar time for feminists in India. On the one hand, debates of over two decades now make us sharply aware of vital importance of the intersecting multiple axes of power in shaping patriarchy and hence of the need to acknowledge mutual differences and inequalities. On the other, the high-tide of Hindutva nationalistic jingoism sweeps us all together as 'anti-nationalist', equally dangerous to the Hindutvavaadi nation. Not surprisingly then, in no other time has the need to rethink and rebuild feminist solidarities felt so urgent. The question would perhaps be to ask how we could deploy the insights about the end of 'romantic sisterhood' to produce a thorough critique of feminist practice. I contend that for this to happen, intersectional analysis needs to be applied as a tool of feminist self-transformation, acknowledged as integral to lived feminist ethics, and not merely something that figures in the knowledge that we produce. This essay is an attempt to think aloud this challenge and what it entails, from Kerala, a society where feminism is irrevocably pluralized at present, but where feminists do face the Hindutvavaadi threat of exclusion as 'immoral' and 'anti-national'.

Status: *South Asian History and Culture*, 9:4, 407-419, DOI:10.1080/19472498.2018.1535545

#### **120. Panel Data Analysis with Stata: Part 2- Problems of Non-Spherical Error**

N. Vijayamohan Pillai

The present work is the second part of a larger study on panel data. In the error components models we assume that the errors are homoscedastic, that is, they have identical variance across the panel and time, and that any correlation overtime is only between the errors of the same unit across the panel. However, in many panel data models these assumptions may be very restrictive, as they often involve (i) cross sectional units of varying size, and thus show different variations, or (ii) cases where unobserved variables will have some perceptible effect that systematically varies over time, such as the effects of auto-correlated omitted variables or the effects of a random shock that last for the next few more periods, or (iii) both. As these assumptions fail, the error term

becomes non-spherical. In such error components models, the consequence is that the OLS estimators are not efficient, not minimum variance estimators, even though they are still unbiased and consistent. Also, the standard errors of these estimates will be biased, and one should compute robust standard errors accounting for the possible presence of heteroskedasticity or autocorrelation or both. The present paper discusses the estimation procedures for panel data with non-spherical errors with applications in Stata.

Status: Completed.

### **121. Panel Data Analysis with Stata: Part 3 - Problem of Endogeneity**

N. Vijayamohanan Pillai

The present work is the third part of a larger study on panel data. Given a multiple relationship model with a spherical error, we can apply ordinary least squares (OLS) regression to get consistent estimators of the parameters, if the regressors are either non-stochastic, or, if stochastic, independent of (orthogonal to) the error term; under this orthogonality condition, the regressor is an exogenous variable, hence this is an exogeneity condition also. If this condition is violated, then we have the problem of endogeneity: here, the OLS breaks down; that is, the OLS estimators are no longer unbiased nor consistent. Given that the dependence between the regressor and the error term results in inconsistent estimator, it is necessary to consider alternative estimation methods to obtain a consistent estimator. The standard remedy for endogeneity problem is to use instrumental variables regression. Using such an instrument instead of the endogenous regressor will yield consistent estimator. We have a number of different approaches to using instruments in the presence of endogeneity problem in panel data context. Stata mainly uses Two-stage Least Squares (TSLS), whereas EViews considers TSLS, Limited Information Maximum Likelihood and K-Class Estimation, and Generalized Method of Moments. The present paper discusses the testing of endogeneity in panel data and the corresponding estimation procedures, with applications in Stata.

Status: Completed.

### **122. Energy Efficiency in Kerala**

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.

Energy conservation is usually defined as a deliberate reduction in using energy below some level that would prevail otherwise (Munasinghe and Schramm 1983). This may be achieved at both the ends of supply and demand, and works through load management of electricity usage, including direct (mechanical) controls on end-use equipment and power cuts on supply-side and time-differential tariffs and other management measures on the demand side. “Load management meets the dual objectives i) of reducing growth in peak load, thus nipping the need for capacity expansion, and ii) of shifting a portion of the load from the peak to the base-load plants, thereby securing some savings in peaking fuels. By moving toward achieving these objectives, electric utilities stand to win a cut in operating and capacity costs, share the gain with the consumers and provide a partial solution to the country’s energy dilemma.” (Pillai 2002: 4-5).

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 a greater amount of useful energy output. The energy efficiency of most of the end-use appliances that we use is pretty low, with consequent losses and higher demand for inputs, leading to environmental damages. This, in turn, suggests that improving energy efficiency can manage energy demand in better ways and contribute highly to a better environment. It is estimated that the cumulative total energy savings from higher energy efficiency standards for residential and commercial appliances in the US for the period 2010–2030 would be nearly 26 quads (1 quad  $\approx$  293,071,000,000 kilowatt-hours) (Rosenquist et al., 2004).

These studies have demonstrated that the aggregate energy efficiency inherently encompasses a number of factors that affect energy intensity, viz., a structural effect, representing the effect of changes in economic structure, an activity effect, representing the changes in the levels of aggregate activity, a wealth effect, representing changes in GDP, and an underlying energy efficiency effect, including a technical effect and an energy quality effect. This new light has, in turn, led to the development of the techniques of factorization or decomposition.

The main objective of the study is to examine the extent to which aggregate energy intensity trends are attributable to shifts in the underlying structure, activity, and efficiency improvements in the power sector of Kerala.

Almost all the earlier studies have in general employed the method of indicators pyramid, based on which energy efficiency changes have been decomposed from other factors at each level of disaggregation using factorization method. Factorization has been conducted either on the energy-GDP ratio or almost equivalently on total consumer energy use and carried on to the finest level of the subsector, subject to data availability. The Laspeyres index decomposition approach was in vogue earlier that has now been replaced with methodologically superior Divisia approach. The present study also follows suit.

Status: Completed.

## RESEARCH PROJECTS

### *Ongoing Projects*

#### **123. Sector-wise Electrical Energy Intensity in Kerala Factoring in Energy Efficiency and Productivity**

N. Vijayamohanan Pillai

*Sponsor:* Energy Management Centre, Trivandrum.

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. In particular, the study seeks to

- a) establish sector-wise energy intensity;
- b) identify the sector-wise energy-productivity ratios;
- c) estimate the energy savings from efficiency improvements;
- d) assess the positive effects of energy efficiency on investment; and
- e) set up a simulation for energy intensity reduction both in a business-as-usual and in a revised policy scenario, factoring in energy efficiency and the renewable.

The study also aims to estimate the State's potential to meet the power demand, factoring in energy efficiency enhancement and renewable energy-based electricity generation. An action plan and road map of supply-side and sector-wise demand-side management strategies for enhancing energy productivity will also be drawn up. An impact analysis of structural and regulatory reforms in the energy sector also is proposed.

It is also planned to conduct some case studies to establish the relationship between energy efficiency improvement and productivity in domestic, commercial, industrial, agricultural, and buildings sectors.

Status: Ongoing.

### III

## 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 ten working papers were published. A total of ten books have been published by the faculty, 37 research articles by faculty and nine by students in professional journals. 30 chapters in edited volumes and 36 other publications in reports, newspapers, magazines etc. have been brought out. The faculty researches are also published by well-reputed publishers like Routledge, Orient Blackswan, World Scientific, Social Science Press, Springer, Oxford University Press, etc. The Centre also publishes a quarterly 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

##### **P.L. Beena**

*Mergers and Acquisitions: India under Globalisation*, South Asia Edition, Routledge, Reprint.2018.

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

*India Migration Report 2018: Migrants in Europe*, (Editor), Routledge

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

*South Asia Migration in the Gulf: Causes and Consequences* (eds. Mehdi Chowdhury and S. Irudaya Rajan, Palgrave MacMillan

*Youth Migration in Emerging India: Trends, Challenges and Opportunities*, Orient BlackSwan.(Eds. with P.Sivakumar)

*Emigration from Kerala: End of an Era*, Redink (with KC Zachariah)

## **Manmohan Agarwal**

Uma Lele, Manmohan Agarwal, Sambuddha Goswami (eds.). 2018. *Patterns of Structural Transformation and Agricultural Productivity Growth (with Special Focus on Brazil, China, Indonesia and India)*, Gokhale Institute of Politics and Economics, Publication No. 75.

*What is Economic Development? A Comparative Performance of Indian States*, Social Science Press, New Delhi. 2019 (with Amit S Ray, and M Parameswaran)

*G20 and International Economic Coordination: Lessons from the Inter-War Years*, (forthcoming), World Scientific, Singapore (with Jing Wang and John Whalley)

## **M Parameswaran**

*What is Economic Development? A Comparative Performance of Indian States*, Social Science Press, New Delhi. 2019.(with Amit S Ray &Manmohan Agarwal)

## **Udaya S. Mishra**

*The Demographic and Development Divide in India: A District-Level Analysis* (Eds. Sanjay K Mohanty Udaya S Mishra and Rajesh K Chauhan) Springer Nature 2019

## **Jayaseelan Raj**

*Ground Down by Growth: Tribe, Caste, Class and Inequality in India*. New Delhi: Oxford University Press. (South Asian Edition) 2018. (with Shah, A., Lerche, J., Axelby, R., Benbaabali, D., Donegan, B., & Thakur,V)

## **Books by Honorary Fellows**

### **MA Oommen**

*Amartya Sen's Human Science of Development: An Introduction* [Amarthyasennita Manavika Vikawanasasthram Oru Amukha Patanam (Malayalam)], Second Revised Edition (first published 2000), published by The State Institute of Language Kerala (2018)

*Kerala: History, Contemporary Era and Vision* [Keralam: Charithram-Varthamanam-Dharsanam (Malayalam)] published by Kerala Sasthra Sahitya Parishath, Thrissur (2018)

### **KP Kannan**

*Kerala in Transition: Essays on Economy, Polity and Society* (ed) COSTFORD and Laurie Baker Centre for Habitat Studies, 2018.



## **(b) JOURNAL ARTICLES**

### **Abhilash Thadathil**

‘Adivasi Claims over Sabarimala Highlight the Importance of Counter Narrative and Tradition,’ *Economic and Political Weekly*, Vol. 54, No.1. 2019.

### **P.L. Beena**

Beena PL (forthcoming) ‘Antitrust Implications of Mergers: Recent Evidence from Indian Corporate Sector,’ *The Antitrust Bulletin*, Vol.65, Issue 1, March 2020.

### **J. Devika**

‘Planning a ‘slum-free’ city: Housing Upgrade and the Reshaping of Urban Governance in Trivandrum, Kerala,’ *Environment and Planning C*, June 2018, <https://doi.org/10.1177%2F2399654418784305> (with Glyn O Williams, Umesh O, N Jagajeevan)

‘Enacting Participatory, Gender-Sensitive Slum Redevelopment? Urban governance, power and participation in Trivandrum, Kerala.’ *Geoforum* 96 105-159: 2018: <https://authors.elsevier.com/a/1XZer3pILM3Oi> ( with Williams, G, Omankuttan U, Aasen, B)

‘Towards Reparative Readings: Reflections on Feminist Solidarities in a Troubling Present’, *South Asian History and Culture*, 9:4, 407-419, DOI:10.1080/19472498.2018.1535545

Review of Development and Gender Capital in India: Change, Continuity, and Conflict in Kerala, by Shoba Arun. *The Journal of Development Studies*. <https://doi.org/10.1080/00220388.2018.1556440>

### **Hrushikesh Mallick**

‘Do International Crude Oil Price and Public Investment Affect Private Investment? An Empirical Analysis for a Large Emerging Economy,’ *Energy Economics* 69, 307–324. 2018. (with Mantu Kumar Mahalik & Manoranjan Sahoo)

‘Is Skewed Income Distribution Good for Environmental Quality? A Comparative Analysis among Selected BRICS Countries,’ *Environmental Science and Pollution Research*, 25(23): 23170–23194. June 2018 (with Mantu Kumar Mahalik & Hemachandra Padhan & Bhagaban Sahoo)

‘Does Skewed Pattern of Income Distribution Matter for the Environmental Quality? Evidence from selected BRICS economies with an application of Quantile-on-Quantile regression (QQR) approach”, *Energy Policy*, Vol.129, 2019, Pages 120-131, (with Mantu Kumar Mahalik & Hemachandra Padhan)

### **S. Irudaya Rajan**

‘An Analysis of Factors Influencing the International Migration of Indian Nurses,’ *Journal of International Migration and Integration*, Volume 19, No.3, Pp. 607-624.2018. (with Oda., Y.Tsujita)

‘Migration Politics and Beyond: Time to Ponder,’ *Migration and Development*, Volume 7, No.1, Pp. 1-4.2018.

‘Investment Expenditure Behavior of Remittance Receiving Households: An Analysis Using Reserve Bank of India Data,’ *Migration Letters*, Transnational Press London. Volume: 15, No: 3, pp. 303 – 320.2018. (with Bharati Basu)

‘Living longer: For better or worse? Changes in life expectancy with and without mobility limitation among older persons in India between 1995–1996 and 2004,’ *International Journal of Population Studies*, Volume 4, Issue 2.2018 (with Sreerupa, Shweta Ajay, Yasuhiko Saito, Rahul Malhotra)

‘Kerala’s Flood Disaster, Will Migration Still Act as Indemnification?’ *Economic and Political Weekly*, Vol. 53, Issue No. 36, 08 Sep. 2018. (with Arokkiaraj Heller and Rakesh Ranjan)

### **K.J. Joseph**

‘The Dragon Turns around, and the Elephant Moves Forward: Inequality in China and India under Globalization,’ *Millennial Asia*, 9(3) 235–261 (with Liyan Zhang and Kiran Kumar Kakarlapudi)

### **Manmohan Agarwal**

‘Contradictions in Kerala? A Study in Wellbeing,’ *The Wellness Journal*, Volume No. 3, January 2019. (with Amit Shovon Ray)

‘India-China Trade: Asymmetrical Developments and Future Prospects,’ *South Asia Economic Journal*, Vol. 20(1), 70-93.2019. (with A. Banerjee and S. Ghosh)

‘Welfare Cost of Inflation: Evidence from India. *Journal of Quantitative Economics*, 1-19.2018 (with Shah, I. A., Srikanta Kundu)

**Ritika Jain**

‘The Impact of Ideology on Disinvestment Decisions of a Coalition: A Game-Theoretic Analysis,’ *Public Finance Review*, 46(5), 821-849. 2018. (with Shubhro Sarkar)

‘Ownership Effects on R&D Spending in India: Does External Borrowing Matter?’ *International Journal of Technological Learning, Innovation and Development*, 10(2), 159-175. 2018.

‘An Empirical Analysis of Disinvestment Policy in India: Does Ideology Matter?’ *Journal of Economic Policy Reform*, 1-15. 2018. (with Shubhro Sarkar)

‘Contributions to the Exchequer Funds by State Level Public Sector Enterprises: Does Political Alignment Matter?’ *Constitutional Political Economy*, 29(1), 93-113. 2018.

‘To Profit or Not Profit? The Case of State Level Public Sector Enterprises in India. *Keio Economic Studies*, 53, 53- 70. 2018.

**Seenath, P.**

‘To Conserve or to Explore? Farm Level Strategies to Manage Groundwater,’ *Agricultural Economics Research Review*, pp. 89-100. 2018. (with Devi PI, Chakravorthy, A and Shaji, E)

**Srikanta Kundu**

‘Welfare Cost of Inflation: Evidence from India. *Journal of Quantitative Economics*, 1-19. 2018 (with Shah, I. A., Agarwal, M. L.,)

**Sunandan Ghosh**

‘Parallel Imports, Product Quality and Endogenous Trading Bloc Formation’. *Economics Bulletin*, Vol. 38, Issue 3, 1415-1427. 2018.

Ghosh, S, M Agarwal and A Banerjee (2019). ‘India–China Trade: Asymmetrical Developments and Future Prospects,’ *South Asia Economic Journal*, Vol. 20(1), 70-93.

**Sudip Chaudhuri**

‘Effects of Product Patenting on Market Structure and Prices: Evidence from Post-TRIPS Pharmaceutical Industry in India,’ (forthcoming)

### **Sunil Mani**

‘Robot Apocalypse: How Will Automation Affect India’s Manufacturing Industry?’ *Economic and Political Weekly*, Special Article, Vol. LIV No.8, February 23, pp. 40-48.2019.

‘Economists and Public Policy in a Globalised World,’ *Economic and Political Weekly*, Vol. L111, No 30, July 28. Book Review on *Economic Theory and Policy Amidst Global Discontent: Essays in Honour of Deepak Nayar*, Edited by Ananya Ghosh Dastidar, Rajeev Malhotra and Vivek Suneja, London: Routledge, 2018.

‘What is Happening to India's R&D Funding?’, *Economic and Political Weekly*, Vol. LIII, No: 14, pp. 12-14.2018.

### **Udaya S. Mishra**

‘Demand for Domestic Workers in India: Its Characteristics and Correlates,’ *The Indian Journal of Labor Economics*, 61 (4), 659-679. 2018 (with Shraddha Jain).

‘Men Outnumbering Women: Concerns and Consequences’ in *Review of Agrarian Studies*, Vol.8(1), pp. 121-124.

### **Jayaseelan Raj**

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

‘The Crisis and the Retirement: Alienation in Kerala’s Tea Belt,’ *Focaal: Journal of Global and Historical Anthropology*. Vol. 83 (2). 2019.

‘Rumour and Gossip in a Time of Crisis: Resistance and Accommodation in a South Indian Plantation Frontier,’ *Critique of Anthropology*. Vol 39 (1): 52-73. 2018.

### **Vinoj Abraham**

‘Towards Enhancing The Effectiveness Of Minimum Wage Systems: The Wage Protection System In Kerala,’ *Labour and Development*, Vol. 25, No. 2, December, 2018 (with Sasikumar, S.K).

‘Labour Market Institutions and New Technology: The Case of Employment Service in India,’ *Indian Journal of Labour Economics*. (2018) 61: 453. <https://doi.org/10.1007/s41027-018-0144-1>:2018 (with Sasikumar, S.K).

## **Journal Articles by Honorary Fellows**

### **M.A. Oommen**

‘The Epistemology of the Discipline of Economics’, *Economic and Political Weekly*, Vol. 54, Issue No. 10, 09 March, 2019.

### **K.P. Kannan**

'The Great Kerala Floods 2018' in *Seminar*, No. 713, January 2019.

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

### **Adrita Banerjee**

‘India–China Trade: Asymmetrical Developments and Future Prospects,’ *South Asia Economic Journal*, Vol. 20(1), 70-93. 2019. (with Sunandan Ghosh, and Manmohan Agarwal)

### **Murugan, G**

‘Accounting International Remittance in the Gross State Disposable Income (GSDI) of a Sub-National Economy: Some Explorations,’ *Journal of Income and Wealth*, Vol. 40, No.2, July-December.2018.

### **Rajesh, I D**

Rajesh, I D. 2018. ‘An Enquiry into the Nature of Unpaid Domestic activities among Females in India." *Labour & Development*, [25\(2\), 116-140](#).

### **Shah, I. A**

‘Welfare Cost of Inflation: Evidence from India’, *Journal of Quantitative Economics*, Sep, pp 1-19.2018 <https://link.springer.com/article/10.1007/s40953-018-0140-9> (with Agarwal, M. L., & Kundu, S.)

### **Shraddha Jain**

‘Demand for Domestic Workers in India: Its Characteristics and Correlates,’ *The Indian Journal of Labor Economics*, 61 (4), 659-679. 2018 (with US Mishra).

### **Sandeep Kumar Kujur**

‘Use of Traditional Inputs and Advanced Industrial Technology in Value-added within the Pulp and Paper Industry in India,’ *Journal of Sustainable Forestry*. ID: <http://dx.doi.org/10.1080/10549811.2019.1598439>.

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

### **Abhilash T**

Tribal Politics in Kerala' (forthcoming) in *Handbook of Tribal Politics in India*, Virgenous Xaxa and Jagannath Ambagudia (Eds.) Published by SAGE.

### **S. Irudaya Rajan**

'Impact of Widowhood and Disability among Elderly', Chapter 4 in the book, Rekha Pande and Theo van der Weide (Eds.). 2018. *Handbook of Research on Multicultural Perspectives on Gender and Ageing*, IGI Global Book Series Advances in Human and Social Aspects of Technology (AHSAT), USA. 2018. (With S. Sunitha)

'Demography of Gulf Region,' Chapter 3 in *South Asian Migration in the Gulf*. Palgrave MacMillan. 2018. (with Mehdi Chowdhury)

'Demographic Change in Kerala' Chapter 3 in Book, B.A. Prakash and Jerry Alwin (Eds.) 2018. *Kerala's Economic Development: Emerging Issues and Challenges*, 2018. (with S. Sunitha)

'Empowering the Elderly by Giving Dignity,' Chapter 3 in *Geriatrics Health HülyaÇakmur*, IntechOpen, 2018. (with S. Sunitha)  
Available from: <https://www.intechopen.com/books/geriatrics-health/empowering-the-elderly-by-giving-dignity>

'The Impact of Trump Administration on Immigration,' Chapter 17 in S. Irudaya Rajan (ed.) *India Migration Report 2019: Diaspora in Europe*. Routledge. 2018. (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.2018. (with Benoy Peter, Udaya S Mishra and Vishnu Narendran)

'Panel Data Analysis in Kerala Migration Surveys, 1988-2013,' Chapter 19 in S. Irudaya Rajan (ed.) *India Migration Report 2019: Diaspora in Europe*. Routledge.2018 (with K.C. Zachariah)

'Short-term Visa Requirement for Indian Nationals in the European Union,' Chapter 4 in S. Irudaya Rajan (ed.) *India Migration Report 2018: Migrants in Europe*. Routledge.2018.

'BREXIT: Did a Perceived Threat of Immigrants Divide a Country?' Chapter 8 in S. Irudaya Rajan (ed.) *India Migration Report 2018: Migrants in Europe*. Routledge. (with Nikhil Panicker)

‘Experiences of Indian ‘Bachelors’ in the Gulf,’ Chapter 18 in S. Irudaya Rajan (ed.) *India Migration Report 2018: Migrants in Europe*. Routledge. 2018. (with Chitra Ranganathan and Sreelakshmi Ramachandran)

‘Impact of Migration on Contemporary Demographic Transformation in Kerala,’ Chapter 19 in S. Irudaya Rajan (ed.) *India Migration Report 2018: Migrants in Europe*. Routledge. 2018. (with K.C. Zachariah)

### **K.J. Joseph**

‘Export Employment Conundrum in India’s Manufacturing under Globalization: In Search of a Strategic Approach,’ in Sachin Chaturvedi and S. Saha (ed.), *Manufacturing and Jobs in South Asia*, New Delhi, Springer, 2019. (jointly with Kiran Kumar Kakarlapudi)

‘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.

### **Manmohan Agarwal**

‘G20 and International Economic Coordination: Lessons from the Inter-War Years,’ forthcoming in a volume edited with John Whalley and Jing Wang, *G20*, World Scientific, Singapore

‘What can the G20 contribute to Development,’ forthcoming in volume ed with John Whalley and Jing Wang, *G20*, World Scientific, Singapore. (with John Whalley)

‘Latin American Economic Performance: What Ails it?’ forthcoming in a volume edited with John Whalley and Jing Wang, *G20*, World Scientific, Singapore. (with Amrita Brahmo)

‘The Sub Saharan Countries: What Can be done by the G20?’ forthcoming in volume edited with John Whalley and Jing Wang, *G20*, World Scientific, Singapore (with Amrita Brahmo)

‘Public Investment in Education and Out of School Children: The Case of India in South Asia,’ (forthcoming in volume edited with John Whalley and Jing Wang, *G20*, World Scientific, Singapore (with Susmita Mitra)

‘Prospects of Achieving the Sustainable Development Goals,’ (forthcoming in volume edited with John Whalley and Jing Wang, *G20*, World Scientific, Singapore (with Adrita Banerjee)

### **Praveena Kodoth**

‘Locality Specific Norms for Wages and Bargaining: 'Part-time' Domestic Workers in the National Capital Region,’ in Neetha N. (ed). *Working at Others’ Homes: The Specifics and Challenges of Paid Domestic Work*. Tulika Books, New Delhi. (With Shraddha Jain)

‘The Lure of Informality: Regulation and the Market for Domestic Work in the Middle East for Women from Kerala,’ in N Neetha (ed.) *Working in other’s homes: the specifics and challenges of paid domestic work*, New Delhi: Tulika.

### **Udaya Shankar Mishra**

‘Men Outnumbering Women: Concerns and Consequences’ in Srinivasan Sharada and Li, Shuzhuo (Eds) *Scarce Women and Surplus Men in China and India: Macro Demographics Vs. Local Dynamics*, Springer International Publishing Basel, pp. 164.

‘Population Trends, Distribution and Prospects in the Districts of India,’ in Sanjay K Mohanty Udaya S Mishra and Rajesh K Chauhan (eds) *The Demographic and Development Divide in India*, Springer Nature 2019. (with Rajesh K. Chauhan, Sanjay K. Mohanty)

‘Educational Development and Disparities in India: District-Level Analyses ’ in Sanjay K Mohanty Udaya S Mishra and Rajesh K Chauhan (eds) *The Demographic and Development Divide in India*, Springer Nature 2019. ( with Sayantani Chatterjee)

‘State of Health in the Districts of India’ in Sanjay K Mohanty Udaya S Mishra and Rajesh K Chauhan (eds) *The Demographic and Development Divide in India*, Springer Nature 2019. (with Sanjay K. Mohanty, Nihar R. Mishra, Junaid Khan, Guru Vasistha)

‘Maternal and Child Health in Districts of India: Deprivation and Disparities’ in Sanjay K Mohanty Udaya S Mishra and Rajesh K Chauhan (eds) *The Demographic and Development Divide in India*, Springer Nature 2019. (with Basant Kumar Panda and Subhakant Swain)

‘Spatial Pattern of Development in the Districts of India,’ in Sanjay K Mohanty Udaya S Mishra and Rajesh K Chauhan (eds) *The Demographic and Development Divide in India*, Springer Nature 2019. (with Sanjay K. Mohanty, Bidyadhar Dehury and Anjali Dash)

### **Vinoj Abraham**

‘MGNREGS: Political Economy, Local Governance and Asset Creation in South Indian States’, in Madhusudan Bhattarai, P.K. Viswanathan , Rudra N. Mishra, Cynthia Bantilan (eds.) *MGNREGS in India*. 2018.



## **Chapter (s) in Books by Honorary Fellows**

### **K.P. Kannan**

Invited by the International Labour Office in New Delhi to join as a Member of the UN Team for Post Disaster Needs Assessment for Kerala after the great August 2018 floods. Wrote a paper on *Employment and Livelihoods* which was later incorporated as a chapter in the UN-PDNA Report for Kerala, October 2018.

## **Chapter (s) in Books by Students / Post Doctoral Fellows**

### **Shraddha Jain**

'Locality Specific Norms for Wages and Bargaining: 'Part time' Domestic Workers in the National Capital Region,' in Neetha N. (ed). *Working at Others' Homes : The Specifics and Challenges of Paid Domestic Work*. Tulika Books, New Delhi. 2019. (With Praveena Kodoth)

## **(d) OTHER PUBLICATIONS**

### **Devika, J**

'Kudumbashree and its Rivals: Reflections on Women's citizenship, Social Connections and SHGs in Kerala', No. 3, Lateral Studies on the Kudumbashree, RULSG, Thiruvananthapuram: CDS.2018. (with Jyothi Nair)

'The Many Incarnations of Kuriyedathu Thatri', Afterword to the English translation of Madampu Kunhukuttan's *Bhrasht*, New Delhi, Aleph Books, 213-222. 2018.  
Review of 'Development and Gender Capital in India: Change, Continuity, and Conflict in Kerala,' by Shoba Arun. *The Journal of Development Studies*. <https://doi.org/10.1080/00220388.2018.1556440>

### **Other Published work**

This includes three short reflections in the RULSG series 'Building a New Kerala: Ideas and Reflections' published on the CDS website post-flood, in Sept-Oct. 2018 (one co-authored with Dr K K Eswaran), and the advocacy note published by the RULSG, 'Getting Beyond 'Housewife-Development' (2019).

### **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 and to the Woke Malayalam online journal.

## **Writing in the English Press**

Have continued to offer social-scientific commentary on contemporary Kerala on [www.kafila.org](http://www.kafila.org)

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

Continues to write a monthly column in the Business Line's weekly magazine *BL Ink* on gender in India since Mar 2016.

## **Ongoing Translations**

Twenty-One short stories by Unni R, to be published by Amazon-Westland in 2020. Final MS submitted in December 2018.

Twenty-two short stories by the late Ashita, to be published by Cinnamon Teal in 2020. Final MS submitted in March 2019. Copyediting in progress.

## **S. Irudaya Rajan**

'Demographic Dynamics and labour Force' ILO Thematic paper, May 2018 (with US Mishra)

'Internal Migration' ILO Thematic paper, May 2018. (with U.S. Mishra)

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 US Mishra)  
<https://www.thehindu.com/opinion/op-ed/the-state-of-the-states/article26240864.ece>

No easy head counts. The Hindu, Opinion. August 12, 2018. (with US Mishra)  
<https://www.thehindu.com/opinion/op-ed/no-easy-head-counts/article24575861.ece>

The diaspora and disasters. The Hindu, Opinion. October 9, 2018.  
<https://www.thehindu.com/opinion/op-ed/the-diaspora-and-disasters/article25160514.ece>

Emigration down, Kerala needs to move on from remittance economy. September 18, 2018.  
<https://indianexpress.com/article/explained/emigration-down-kerala-needs-to-move-on-from-remittance-economy-5363478/>

Emigration down, Kerala needs to move on from remittance economy. The Indian Express, September 19, 2018. <https://indianexpress.com/article/explained/emigration-down-kerala-needs-to-move-on-from-remittance-economy-5363478/>

### **Manmohan Agarwal**

*The Manufacturing Sector in India*, Research and Information Systems, Discussion Paper No. 231, August 2018.

*Technology Development Policies in Brazil, China, India, Russia and South Africa*, Research and Information Systems, Discussion Paper No. 227, April. 2018.

*Skill Development in Africa: Scope for India-Japan Cooperation in Asia Africa Growth Corridor*, Research and Information Systems, Discussion Paper No. 214, April. 2018.

Protectionism: US Tariff Policy and India's Response (Part I). *CDS Commentary on India's Economy and Society Series - 4*, December, 2018.

'India's SDG Performance,' (with Sunil Mani and M Parameswaran)

### **M. Parameswaran**

'India's SDG Performance,' (with Sunil Mani and Manmohan Agarwal)

### **Sunandan Ghosh**

Enlargement Decisions of Regional Trading Blocs with Asymmetric Member. *CDS Working Paper Series*, No. 480, 2018.

Protectionism: US Tariff Policy and India's Response (Part II). *CDS Commentary on India's Economy and Society Series - 4*, December, 2018.

### **Sunil Mani**

'Dimensions of India's Intellectual Property Right System: How Many Patents are Commercially Exploited in India,' *Commentary on India's Economy and Society Series No. 2*, May.2018.

'The Economic Implications of the Kerala Floods', *The Mint*, August 21 2018, <https://www.livemint.com/Politics/Zc1nGPsp4iNh01y4pLrhWM/The-economic-implications-of-the-Kerala-floods.html>

'Rebuild Kerala: The Six Lessons', *The Deccan Herald*, September 21, 2018, <https://www.deccanchronicle.com/nation/current-affairs/210918/rebuild-kerala-the-six-lessons.html>

‘India’s SDG Performance,’ (with Manmohan Agarwal and M Parameswaran)

### **Udaya S. Mishra**

‘Demographic Dynamics and Labour Force’ ILO Thematic Paper, May 2018 (with S. Irudaya Rajan)

‘Internal Migration’ ILO Thematic Paper, May 2018. (with S. Irudaya Rajan)

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

No easy head counts. The Hindu, Opinion. August 12, 2018. (with s. Irudaya Rajan)  
<https://www.thehindu.com/opinion/op-ed/no-easy-head-counts/article24575861.ece>

### **Vijayamohanan Pillai, N**

Does Quality Qualify the Kerala Model? Decentralized Governance, Human Development and Quality, *MPRA Working Paper No. 85739*.

Development as a ‘Norms-Rights Transition Process’ Through Public Action. *MPRA Working Paper No. 86137*.

The Dialectics of Motivation and Action: A Look into the ‘Why’ of the “Kerala Model” *MPRA Working Paper No. 87911*.

### **Vinoj Abraham**

Book Review of the OUP publication “Quarter Century of Liberalisation in India” published in the *The Book Review*, Volume XIII Number 10 October 2018.

‘Wage Policy and labour market outcome in Kerala,’ *ILO Asia-Pacific Working Paper Series, 2018*. (with Sasikumar S K)

### **Other Publications by Honorary Fellows**

#### **M.A. Oommen**

*‘Local Government Budgets: Towards A Reliable and Rational Financial Reporting System’*, Occasional Paper 2018:1, Research Unit on Local Self Governments, Centre for Development Studies, Thiruvananthapuram (2018)

‘On the threshold of a Grand Opportunity: Salience of an Approach to Rebuilding Kerala’ published in *Social Science in Perspective*, Special Issue on Common property

and Citizens Rights: Issues of Reconstruction of Kerala, Quarterly Journal of C.Achutha Menon Study Centre & Library, Trivandrum Vol.10&11, No. 4&1, 2018, 2019.

NITI Aayog's 'unsustainable' index –March 18, 2019 | *Business Line*

Old challenges in building a new Kerala| February 25, 2019, | *The Hindu*

Rebuilding Kerala, transparently | January 31, 2019, | *Business Line*

Strengthening the federal link August 22, 2018, | *The Hindu*

Federalism that's not cooperative| June 04, 2018 | *The Hindu*

Local democracy in disarray| May 01, 2018 |*The Hindu*

Shifting towards Centre |April 10, 2018 | *Business Line*

### **K.P. Kannan**

'Wage Inequalities in India,' *CDS Working Paper Series, No 482*, December. 2018

*Structural Transformation and the Agrarian Question in the Indian Economy: Some Disturbing Concerns from a Labourist Perspective* (Finalised manuscript based on a lecture delivered at AK Dasgupta Memorial Lecture, Benaras Hindu University on 17 March 2018.)

### **Other Publications by Students / Post Doctoral Fellows**

#### **RULSG Occasional papers/ Reports**

M.A. Oommen. 2018. *Local Government Budgets: Towards a Reliable and Rational Financial Reporting System*, RULSG Occasional Papers 2018:1, April.

LGBTQI Handbook, RULSG, May, 2018.

*Getting Beyond 'Housewife-development': An Advocacy Note for the Inclusion of the Needs and Voices of Informal-Unorganized Urban Women Workers in Kerala's LSGs*, RULSG, November, 2018.

*Veetammavikasanathinappuratheku* (Malayalam Advocacy note) RULSG, November, 2018.

**(e) WORKING PAPERS**

Manmohan Agarwal. 2018. 'International Monetary affairs in the Inter-War Years: Limits of Cooperation,' *CDS Working Paper No. 476*, June.

P. Kavitha. 2018. 'Trends and Pattern of Corporate Social Responsibility Expenditure: A Study of Manufacturing Firms in India,' *CDS Working Paper No. 477*, September.

A.V. Jose. 2018. 'Changing Structure of Employment in Indian States,' *CDS Working Paper No. 478*, October.

Beena, P.L. 2018. 'Outward FDI and Cross-Border M&As by Indian Firms: A Host Country Analysis,' *CDS Working Paper No. 479*, October.

Sunandan Ghosh. 2018. 'Enlargement Decisions of Regional Trading Blocs with Asymmetric Members,' *CDS Working Paper No. 480*, November.

Mijo Luke. 2018. 'Globalisation and the Re-articulations of the Local: A Case Study from Kerala's Midlands,' *CDS Working Paper No. 481*, December.

K.P. Kannan. 2018. 'Wage Inequalities in India,' *CDS Working Paper No. 482*, December.

S. Irudaya Rajan and K.C. Zachariah. 2019. 'Emigration and Remittances: Evidences from the Kerala Migration Survey, 2018,' *CDS Working Paper No. 483*, January.

R. Mohan. 2019. 'Finance Commissions and Federal Fiscal Relations in India- Analysing the Awards of 11<sup>th</sup> to 14<sup>th</sup> Finance Commissions,' *CDS Working Paper No. 484*, January.

Pulapre Balakrishnan and M Parameswaran. 2019. 'The Dynamics of Inflation,' *CDS Working Paper No. 485*, March.

**(f) COMMENTARY ON INDIA'S ECONOMY AND SOCIETY SERIES**

Sunil Mani. 2018. 'Dimensions of India's Intellectual Property Right System: How Many Patents are Commercially Exploited in India,' *Commentary on India's Economy and Society Series No. 2*, May.

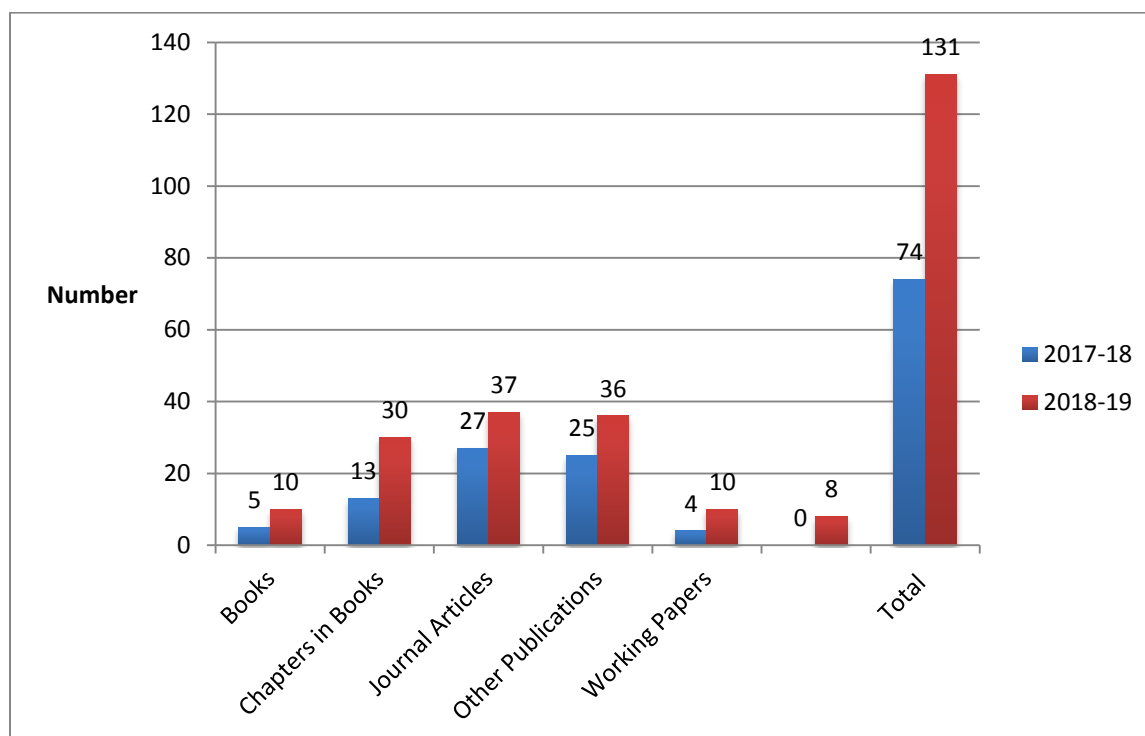
Praveena Kodoth. 2018. 'An Uncertain Shift from 'Protectionism' to 'Empowerment'? Probing the Decision by NORKA to recruit Women Domestic Workers for Kuwait,' *Commentary on India's Economy and Society Series No. 3*, November.

Agarwal Manmohan. 2018. 'Protectionism: US Tariff Policy and India's Response (Part I),' *Commentary on India's Economy and Society Series No. 4*, December, CDS.

Ghosh, S., 2018. 'Protectionism: US Tariff Policy and India's Response (Part II).' *Commentary on India's Economy and Society Series, No.4*, December, CDS.

Ritika Jain. 2019. 'Industrial Investment intention and Implementation in India: Broad Trends and Patterns at the State Level' *Commentary on India's Economy and Society Series, No.5*, March, CDS.

### **Trends in publications by CDS faculty for 2017-18 to 2018-19**



### **(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 12 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 five public lectures.

#### **(a) OPEN SEMINARS**

Tirthankar Roy, Professor, London School of Economics and Political Science and Visiting Professor at CDS, *India and the New Economic History of Colonialism*, (11 April, 2018)

R Mohan, Visiting Fellow, CDS, *Outcome Evaluation of State Finances in the Context of Recommendations of the 14th Finance Commission*, (21 June, 2018)

Priya Menon, (Assistant Professor of English Literature at Troy University, USA. and Fulbright-Nehru Academic and Professional Excellence Fellow affiliated with the CDS), *Keralan Gulf Emigrants as Absence-Presences in Representative Literary Fiction*, (29 June, 2018)

Saikat Sinharoy, Professor and Coordinator, Department of Economics, at Jadavpur University, Kolkata, *Does WTO Improve Market Access? May be, but with Maturity*, (5 July, 2018)

Jagadeesh Sivadasan, Professor, Ross School of Business, University of Michigan- Ann Arbor, USA, *Skewed Sex Ratios in India: Role of Gender-Specific Effects of Early Rainfall Shocks*, (12 July, 2018)

R Mohan, Visiting Fellow, CDS, *Finance Commissions and Federal Fiscal Relations – An Analysis of Recommendations of 11-14 Finance Commissions*, (12 October, 2018)

James J Nedumpara, Centre for International Trade and Investment Law (CTIL) at the Indian Institute of Foreign Trade (IIFT), New Delhi, *China's Long March to Market Economy Status: A Review of China's WTO Accession Protocol*, (9 November, 2018)

Manmohan Agarwal and Sunandan Ghosh, Centre for Development Studies, *Protectionism: US Tariff Policy and India's Response*, Commentary on India's Economy and Society Series-5, (14 November, 2018)

Barbara Bertolani, Independent Researcher, Italy, *South Asian Immigrants in Italy: Integration and Conflict*, (7 January, 2019)

M. Kabir, Formerly Visiting Fellow, CDS, *Ibn-Khaldun's Muqaddimah: A 14<sup>th</sup> Century Analysis of Long-run Dynamics*, (18 January, 2019)

Kazuyuki Motohashi, Professor, University of Tokyo, *Measuring Science-Innovation Linkage of AI and Some Policy Implications*, (18 February, 2019)

Darshana Sreedhar Mini, University of Southern California, *Embodied Vulnerabilities: Precarity and Body-work in Malayalam Soft-porn*, (22 March, 2019)

#### **(b) SEMINARS BY CDS FACULTY/STUDENTS**

Manmohan Agarwal, RBI Chair Professor, Centre for Development Studies, *International Monetary Affairs In the Inter-War Years: Limits of Cooperation* (6 April, 2018)



Kavitha, (PhD Scholar, CDS) *Trends and Pattern of Corporate Social Responsibility Expenditure: A Study of Manufacturing Firms in India*, (13 April, 2018)

Sunil Mani, Professor and Director, Centre for Development Studies, *India's Intellectual Property Right System, How many Patents are Commercially Exploited in India?* Commentary on India's Economy and Society Series (1) (8 May, 2018)

Mijo P. Luke, PhD Scholar, CDS, *Globalization and the Re-articulations of the Rural: A Case Study from Kerala's Midlands*, (20 July, 2018)

PL Beena, Centre for Development Studies and George Paily, PhD Scholar, Centre for Development Studies, *Pattern of International Trade through Kerala under the WTO Regime*, (17 August, 2018)

US Mishra and S. Irudaya Rajan, Centre for Development Studies, *India's Demographic Dividend: Some Reflections*, Commentary on India's Economy and Society Series-3 (14 September, 2018)

Praveena Kodoth, Professor, CDS, *Probing the Unprecedented Decision by Norka to recruit Women Domestic Workers for Kuwait*, Commentary on India's Economy and Society Series-4 (30 October, 2018)

Ritika Jain and Vinoj Abraham, Centre for Development Studies, *Job Reservations, Disinvestment and Firm Performance among Indian Public Sector Enterprises*, (16 November, 2018)

Vinoj Abraham, Centre for Development Studies, *A Review of Impending Labour Markets Reforms in India*, Commentary on India's Economy and Society Series-6 (27 November, 2018)

Sunandan Ghosh & Vinoj Abraham, Centre for Development Studies, *The Case of the 'Missing Middle' in the Indian Manufacturing Sector: A Firm Level Analysis*, (4 December, 2018)

Aritri Chakravarty, Doctoral Scholar, CDS, *Information Seeking by Agricultural Household in India: Determinants of Access and Choice of Sources*, (7 December, 2018)

Kamlesh Goyal, KN Raj Fellow, CDS, *Human Development in Punjab: An Empirical Exploration*, (4 January, 2019)

G. Murugan, Senior ICSSR Fellow, Centre for Development Studies, *Swachh Bharat – 2019: Will Rural India be ODF/Swachh?* Commentary on India's Economy and Society Series-7 (8 January, 2019)

Ritika Jain, Centre for Development Studies, *Industrial Investment in India: Broad Trends and Patterns at the State-level*, Commentary on India's Economy and Society Series-8 (14 March, 2019)

J. Devika, Centre for Development Studies, *Walking on Eggshells in Cyberspace: A Report on Gender Justice, Law Enforcement, Women's Struggles and Negotiations in Malayali Cyberspace*, (21 March, 2019)

Hrushikesh Mallick, Centre for Development Studies, *Role of Governance and ICT Infrastructures in Tax Revenue Mobilisation: An Empirical Evaluation for India*, (29 March, 2019)

**(c) INTERNATIONAL / NATIONAL CONFERENCES / SEMINARS / WORKSHOPS / DISCUSSIONS/ LECTURES / EVENTS**

One-day discussion on "The Second Phase of People's Planning: the Agenda and the Direction" was held on 10 April, 2018 by the Research Unit on Local Self Governments. Professor Tirthankar Roy, Professor at the London School of Economics and Political Science and Visiting Professor at CDS delivered a lecture on, "What do Economic historians do?" at the CDS on 11 April, 2018.

Inauguration of the First Dr B.R. Ambedkar Memorial Event on 23<sup>rd</sup> April 2018.

A Panel Discussion on the theme 'National Health Policy' in memory of Professor PGK Panikar and Professor TN Krishnan, founding fathers and former Directors of the CDS was held in the Joan Robinson Hall on 2 May, 2018.

ILO-CDS Dissemination Workshop "Consultation on Demographic Transition, Migration and Implications for Kerala Economy" organised by the ILO, Kerala State Planning Board, Centre for Development Studies and Centre for Migration and Inclusive Development was held at Mascot Hotel, Thiruvananthapuram on May 14, 2018.

As part of the Environment Day celebrations held on June 5, 2018, Prof Sunil Mani, Director, along with Prof J. Devika planted a Nellika (Gooseberry) and Guava sapling in front of the newly constructed Indoor Badminton Court.

An ICSSR Review team led by Professor Gopakumar, Vice-Chancellor, Central University of Kerala along with three other members representing the council of the ICSSR interacted with faculty and all non-academic staff along with the students during their visit during 23-24 July as part of the ICSSR Review of its institutions

A Panel Discussion on the theme 'Global Migration Issues' was held in the Joan Robinson Hall on 26 July, 2018.

The inauguration of the new academic year 2018-19 was held in the Baker Auditorium, CDS at 2.45 pm on 1 August 2018. The formal inauguration of the session was carried out by Dr Thomas Isaac, Finance Minister of Kerala.

The Inaugural Lecture initiated at the beginning of the academic year titled “India’s Path to Structural Transformation: An Exception and the Rule,” was delivered by Professor Deepak Nayyar, Emeritus Professor, JNU, at the Baker Auditorium, on 2 August, 2018.

The Second Inaugural Lecture titled ‘Reluctant Secularism, Committed Multiculturalism: The Framing of India’s Democracy,’ was delivered by Professor Gurpreet Mahajan, Professor, Centre for Political Studies, School of Social Sciences at the Jawaharlal Nehru University, New Delhi, at the Baker Auditorium, on 8 August, 2018.

A condolence meeting in memory of Mr C.G Devarajan, former Registrar of CDS was held at the Baker auditorium on 29 August 2018.

A consultation meeting was held at the CDS on 4 September, 2018 consisting of all faculty, staff and students to discuss a draft of the CDS strategy in supporting the reconstruction efforts in the context of the megafloods.

A short-term training on ‘State and Civil Society in Development for students of the Department of International Environment and Development Studies (Noragric) of the Norwegian University of Life Sciences (NO-NMBU) was organised between September 4-11, 2018.

A Gender Sensitisation Workshop was held for the new students who joined the CDS in August 2018 on 6 September, 2018 at the Baker Auditorium.

Professor Tirthankar Roy, Professor at the London School of Economics and Political Science and Visiting Professor at CDS delivered a lecture on, “What do business historians do?” at the CDS on 6 September 2018.

The Annual Governing Body Meeting of the Centre was held on 12 September, 2018.

A two-day seminar on “Two Decades of Migration Research” was organised at the Baker Auditorium, CDS on 17<sup>th</sup> and 18<sup>th</sup> September, 2018, marking the twentieth anniversary of the Kerala Migration Surveys (KMS).

13<sup>th</sup> Migration Training Programme on “Methods and Approaches in Research on Migration Issues” Co-ordinated by S. Irudaya Rajan & Udaya S. Mishra was held during September 17-21, 2018.

Lectures by Prof. Frances Stewart

Professor Frances Stewart, Professor Emeritus of Development Economics, University of Oxford delivered a series of lectures at the CDS.

- Lecture -1 was on the topic ‘Changing Approaches to Development,’ on Monday, 1 October, 2018.

- Lecture-11, the 'Ninth BG Kumar Lecture' was delivered in memory of BG Kumar titled 'Revisiting Myrdal's Approach to Development in Asian Drama' on Wednesday, 3 October, 2018.
- Lecture-111 was on the topic 'Human Development: Theory and Practice' on Thursday 4 October, 2018.
- Lecture-1V, the last in the series was on 'Approaches to Inequality' on Friday, 5 October.

#### Lectures by Prof Krishnendu Ghosh Dastidar

- Lectures on Basics of Game Theory by Prof Krishnendu Ghosh Dastidar was held from 15-19 October 2018.

#### Lectures by Prof James J Nedumpara

Dr James J Nedumpara, Visiting Professor, CDS and Professor and Head, Centre for International Trade and Investment Law (CTIL) at the Indian Institute of Foreign Trade (IIFT), New Delhi, delivered the following lectures at the CDS

- Lecture 1- A Road Map for India's Future Investment Treaties: A Discussion in the Light of India's 2015 Model BIT (7 November)
- Lecture 11- The limits of Government Intervention in the Renewable Energy Sector: Lessons from the Renewable Energy Disputes at WTO (8 November)

#### Lectures by Prof Chandan Mukherjee

- Under the Lecture Series by Visiting Research Fellows at the Centre, Lectures on Statistics and Data analysis by Prof Chandan Mukherjee were held between 1-5 November, 2018.

Workshop on Persisting Pollution in Periyar: Industrialisation and Limits to Environmental Governance was conducted by the Research Unit on Local Self Governments, Centre for Development Studies on November 12, 2018.

Workshop on 'Writing for Success: Research Publication Strategies' coordinated by Prof TG Arun and Dr Shoba Arun (November 12 onwards)

A Special Meeting of the Governing Body was held on 13 November, 2018 to elect the Chairman and to nominate the Committee of Direction and Finance Committee.

The Research Unit on Local Self Governments at the Centre for Development Studies conducted a one-day workshop on November 12<sup>th</sup> on the issue of persisting industrial pollution in Eloor area.

Round Table on “An Advocacy Note for the Inclusion of the Needs and Voices of Informal Unorganized Urban Women Workers in Kerala’s LSGs and the Potentials of Gender Resource Centres” conducted by the RULSG Unit during November 17-18, 2018.

A meeting of the NRPPD Steering Committee Meeting was held with stakeholders and on 30 November, 2018 at the CDS.

A three-day seminar on “Indian Economy and Society: Lateral Expositions” was held at the CDS during 12th -14th December, 2018.

A Round Table Discussion on Kerala Flood Disaster Management was held at the Joan Robinson hall on 8<sup>th</sup> January, 2019. The team met with Professor Sunil Mani, Director, CDS.

#### Lectures by Prof Sudipto Mundle

- KN Raj Memorial Lecture to commemorate the anniversary of Prof KN Raj on Monday, 11 February 2019.
- Lecture -1: ‘The Public Service Delivery Performance of States’ on 12 February, 2019.
- Lecture -2: ‘Employment Challenge and the Agrarian Crisis,’ on 13 February, 2019.

Panel Discussion on ‘Performance of States in India on Sustainable Development Goals as seen through C+SDG India Index 2018’ by panellists, Prof Manmohan Agarwal, Dr M. Paraneswaran, and Prof Sunil Mani, chaired by Prof MA Oomen, Honorary Fellow, CDS on 19 February, 2019.

#### Lectures by Dr Rory Horner

Dr Rory Horner, Senior Lecturer, The University of Manchester, delivered a series of lectures at the CDS.

- Lecture -1 was on the topic ‘Global Value Chains and the Uneven Rise of the Global South: Unpacking 21<sup>st</sup> Century Polycentric Trade,’ on 21 January, 2019.
- Lecture- 11, on ‘South-South Value Chains: India’s Pharmaceuticals in Africa,’ was delivered on 22 January, 2019.
- Lecture-111 the last in the series was ‘From International to Global Development,’ on Monday 28 January 2019.

Lecture on ‘Cooperation Among Emerging Economies and Global Governance: Lessons from BRICS Experience’ by Ambassador Anil Sooklal, Deputy Director General, DIRCO, South Africa, at the Joan Robinson Hall, CDS on 30 January, 2019.

#### Lectures by Prof Madhura Swaminathan

- Prof Madhura Swaminathan, Professor, Economic Analysis Unit, Indian Statistical Institute, Bangalore delivered a lecture on “Agricultural Growth in India since Independence: Pattern of Growth, Sources of Growth, Role of Technology vs. Institutions” on 14 February, 2019.
- Lecture: 2 on “Farmer Incomes in India and the Farm Size Profitability Debate Including Discussion of Costs and Prices and Minimum Support Price Policy” delivered on 15 February, 2019.
- Lecture: 3 on “Food Security, the Public Distribution System and Alternatives including Cash Transfers” delivered on 19 February, 2019.

Two day seminar on “Economic Theory and Policy” was conducted at the CDS with funds provided by the RBI Endowment Unit during 22-23 February, 2019.

NRPPD Research Advisory Committee Meeting on 28 February, 2019.

A Discussion on ‘Universal Basic Income’ by Dr Mark Lindley, Adjunct Professor, Mahatma Gandhi Mission (Aurangabad) and Visiting Professor at Babasaheb Ambedkar University was held on 14 March, 2019.

KN Raj Training and Fellowship Programme (TIPE) held during 18 March to 12 April, 2019.

Curriculum Development Workshop for Training Programme (DBT) coordinated by Prof Udaya Shankar Mishra on 30 and 31 March 2019.

#### **(d) PUBLIC LECTURES**

Professor Sukhadeo Thorat (Professor Emeritus, JNU) delivered the Seventh P.K. Memorial Lecture on ‘Inter-Group Inequality in India: Insight from the Economic Theories of Discrimination’ at the Centre on 28 February, 2018.

Professor Frances Stewart (Professor Emeritus of Development Economics, University of Oxford, UK) delivered the Ninth BG Kumar Memorial Lecture on ‘Revisiting Myrdal’s Approach to Development in Asian Drama,’ on 5 October, 2018.

Professor Ravi Kanbur (Distinguished academician & T. H. Lee Professor of World Affairs, International Professor of Applied Economics and Management, and Professor of Economics at Cornell University) delivered the Seventh Foundation Day Lecture at the Centre on 24 October, 2018.

Professor Rajmohan Gandhi (Professor, University of Illinois at Urbana Champaign, USA) delivered the Eighth PK Gopalakrishnan Memorial Lecture on ‘The Challenges of Intolerance, the Future of Indian Democracy and South India’s Role: Some Reflections’ at the Baker Auditorium, CDS on 19 December, 2018.

Professor Sudipto Mundle (Formerly Emeritus Professor at the National Institute of Public Finance and Policy) delivered the KN Raj Memorial Lecture to commemorate the anniversary of Prof Raj on 11 February, 2019.

## **(C) NETWORKING**

### **(a) PARTICIPATION OF FACULTY IN CONFERENCES/ SEMINARS ELSEWHERE**

#### **OUTSIDE INDIA**

##### **P.L Beena**

- Presented a paper titled ‘Trends, Motives and Developmental Implications of Outward Investments from Indian Corporate Sector,’ at GLOBALICS International Conference, Accra, Ghana, 24-26, October 2018.

##### **Hrushikesh Mallick**

- Presented a paper ‘Globalisation, Government Capital Spending and Private Investment in India,’ at the conference on Blended Development Finance and the New Industrial Policy, organised by The Graduate Institute of International and Development Studies Geneva, Switzerland and sponsored by The Graduate Institute of International and Development Studies & Centre for Global Development during November 8-9, November 2018.

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

- Participated in the discussion of the ongoing project, ‘Should We Provide Incentives for Investment Use of Remittances? A Randomized Control Experiment for India,’ funded by UAE Exchange Centre, LLC UAE at Exchange Centre, Abu Dhabi on 2nd May, 2018.
- Delivered a lecture on ‘Kerala Model Migration Studies and Gulf Labour Market: Issues and Challenges’ to the students and scholars at Birla Institute of Technology & Science, Pilani, Dubai Campus, UAE on 3rd May, 2018.
- Attended the second conference of FEPS Global Migration Group on the ‘Dilemmas of the Countries of Origins’ at Dakar, Senegal, organized by Foundation for European Progressive Studies during May 16-19, 2018.
- Invited to attend the LIDC Migration Leadership Team roundtable event, Global Migration Conversations held in Nairobi, Kenya during July 10-11, 2018.
- Presented a paper on Palliative Care for the Elderly in Kerala at the 5th World Congress on Hospice and Palliative Care, held at Melbourne, Australia, during 18-19, 2018.
- Presented a paper on Indians in Gulf: The Kerala Experience in the Workshop No.6, The Future of Population and Migration in the Gulf at University of

Cambridge organized by Kuwait University and European University Institute (EUI), Italy during July 31<sup>st</sup> -August 3<sup>rd</sup>, 2018.

- Invited as a visiting Fellow in the British Academy London, during September 1-12, 2018.
- Participated the third conference of FEPS Global Migration Group on ‘The Dilemmas of the Countries of Origins’, at New York on the fringe of the UN General Assembly under the auspices of UN Secretary-General, organized by Foundation for European Progressive Studies during September 21-22, 2018.
- Participated in the Global Experts Meeting on Migration meeting organized by KNOMAD, World Bank, held at Washington, during October 4-5, 2018.
- Visited Department of Social Sciences and Languages, Northumbria University, New Castle, United Kingdom as part of the British Academy Fellowship during October 9-16, 2018.
- Visited the York Centre for Asian Research, York University, Toronto, Canada, and led a discussion on Gulf-South Asia Migration Corridor on October 23, 2018.
- Spoke on Diaspora and Disaster at Ryerson Centre for Immigration and Settlement, Ryerson University, Toronto, Canada, on October 25, 2018.
- Participated in the international workshop on Mapping and theorizing migration governance and diplomacy: insights from the South-to-West Asian Migration Corridor, held at Leiden University and delivered a presentation on Gendered Mobility and Multi-scalar Governance Models: Exploring the Case of Nurse Migration from South India to Gulf during November 1-2, 2018.
- Participated in the British Academy Workshop on Gender, Migration and Development in India held at South Asia Institute, School of Oriental and African Studies, and presented a paper on Gender, Migration and Development: Evidence from Kerala Migration Surveys on November 3, 2018.
- Chaired a session on International and International Migration at the First South-East Asia Biennial Conference on Population and Health, organised by the University of Brawijaya, held at Singhasari Resort and Convention Centre, East Java, Indonesia, during November 7-8, 2018.
- Visited Department of Social Sciences and Languages, Northumbria University, New Castle, United Kingdom, as part of the British Academy Fellowship during November 13-16, 2018.
- As part of the British Academy – funded project, International Migration and Inclusive Development in India, presented a paper on ‘Skilled and Unskilled



Labour Migration: Evidence from the Kerala Migration Survey’, in its 3rd Workshop: Labour and Skill Mobility From and to India: Contemporary Practice and Governance in Northumbria University-Main Campus, Newcastle Upon Tyne on November 16, 2018.

- Presented a paper on Investments and Prospects for Labour Migration to Russia in the 3rd HoTT (Hheads of Think Tanks) Forum organised by Indian Council of World Affairs (ICWA) & Moscow State Institute of International Relations (MGIMO) on December 13-14, 2018 (Moscow, Russia). Was one among the 14 members team send to Moscow, Russia by The Ministry of External Affairs, Government of India, in connection with the Indo-Russia collaboration.
- Visited Graduate School of Social Sciences, Hitotsubashi University to deliver a special lecture on South Asia Migration to the Gulf supported by Relational Studies on Global Crisis and International Migration financed by Ministry of Education, Culture, Sports, Science and Technology, Government of Japan on February 22, 2019.
- Participated in the Third Annual REALM Workshop held at New York University, Abu Dhabi, United Arab Emirates and delivered a talk on Kerala Migration Survey 2018 Follow up during March 15-16, 2019.

#### **K.J. Joseph**

- Presented a paper on ‘Turnaround in China’s inter-regional inequality in development? Exploring the Role of Education,’ in the second international conference on ‘Innovation in Education,’ organised by Tianjin University of Finance and Economics during May 25-27, 2018.
- Made a presentation on ‘Fourth Industrial Revolution: Boon or a Bane for the South?’ in the special session organised by the Africalics in Africa Innovation Submit at Kigali, Rwanda on June 5, 2018.
- Delivered the presidential address on Innovation and Inequality under Globalization at the 16th Globelics International Conference and was a speaker at the special session on Agricultural Innovation System, Accra, Ghana during October 24-26, 2018.
- Delivered the Key Note Address on ‘Addressing Development Challenges under Globalization: Whither Innovation?’ at the Globelics Academy, Tshwane University of Technology, 3 December 2018.

#### **Praveena Kodoth**

- Made a brief presentation on ‘Impact of development policies on women’s migration’) at A Knowledge sharing forum on women work and migration,

sponsored by Global Alliance against Traffic in Women, held at Colombo, Sri Lanka, on April 9, 2018.

- Presented 'Linking the Macro structures and Micro processes of Migration through Women's Experiences' at a Feminist Participatory Action Research on 'Safe and Fair Migration', at Data Analysis Workshop held at BRAC Centre, Dhaka, Bangladesh during October 22-24, 2018

### **Ritika Jain**

- Presented a paper 'Effect of R&D on Corporate Social Responsibility: Does Ownership Matter? : Evidence from Indian Manufacturing Firms,' at the Globelics Conference held in Accra, Ghana during 24-26, October, 2018.

### **Sunil Mani**

- A paper titled 'Public Innovation Policies and Tools for Strengthening National Innovation Systems, Challenges and Best Practices' was presented at the Regional Forum on Strategies to Enhance Innovation and Management Capacities of Startups and SMEs-Asian and Pacific Centre for Transfer of Technology, UNU-ESACAP, Manila, the Philippines on July 18, 2018.
- Presented two lectures at the CICALICS Workshop 2018 at National Institute of Innovation Management, Zhejiang University, Hangzhou, China during August 22 and 24, 2018.
- Presented a paper 'Dimensions of India's Intellectual Property Right System, How Many Patents are Commercially Exploited in India?', at ASIALICS 2018 Conference, National Institute of Innovation Management, Zhejiang University, Hangzhou, China on August 25, 2018.
- Paper titled 'Robot Apocalypse: Does it Matter for India's Manufacturing Industry,' presented at Joint UNU-MERIT/School of Governance Seminar, UNU-MERIT, Maastricht, the Netherlands on November 21, 2018.

### **IN INDIA**

#### **Beena PL**

- Presented a paper 'Pattern of International Trade through Kerala Ports,' organized by Public Policy Research Institute, Trivandrum, Kerala, April, 2018.
- Presented a paper ( along with George Paily) titled 'Pattern of International Trade through Kerala under WTO' at the National Conference, organised by Public Policy Research Institute, Trivandrum, Kerala, April, 2018.

- Inaugural address delivered on ‘Understanding the current stagnation in the Indian industrial sector,’ organised by Economics Association Inauguration and Exhibition on Kerala Floods, All Saints’ College, Thiruvananthapuram, October. 2018.
- Delivered Memorial lecture of KK Subramanian titled “Understanding the current stagnation in the Indian industrial sector” at Trichur, organised by COSTFORD, October.2018
- Delivered a lecture at the National workshop on Research Writing and Publication in Business Studies, School of Commerce and Business Management, Department of Commerce, Central University of Tamil Nadu during February 8-9, 2019.
- Presented a paper ‘Understanding the Current Crisis in the Indian Industrial Sector,’ at Department of Economics, Central University of Tamil Nadu, February 9, 2019.

### **Chandril Bhattacharyya**

- Presented a paper ‘Union, Efficiency of Labour and Endogenous Growth,’ organised by Indian Statistical Institute, Delhi Centre, India at the Delhi Centre on October 26, 2018.

### **J. Devika**

- Paper titled ‘The Bridge-book: An Experiment in Boundary-Crossing’ presented in conference ‘Liberal Education and the Future of the Humanities and Social Sciences in India’, at the Azim Premji University, Bangalore during April 6-8, 2018. ( Forthcoming in the May 1 issue of the journal *Cafe Dissensus*.)
- Delivered the Rajyashree Khushu-Lahiri Memorial Lecture titled *Where is the Love? : Thoughts on Kamala (Das) Surayya’s Affective Politics* at IIT Kanpur on March 5, 2019.
- Delivered the inaugural lecture on ‘Four Observations on the *Savarna* Disturbances around Sabarimala,’ in the Mukta Salve Memorial Lecture Series at the Krantijyoti Savithribhai Women’s Studies Centre, University of Pune, March 25, 2019.

### **Hrushikesh Mallick**

- A paper ‘FDI Inflows and Regional Variations in Per Capita Incomes among a Group of Developing Asian Economies,’ was presented at the Sixth IIFT Conference on Empirical Issues in International Trade & Finance (EIITF), organised and sponsored by IIFT, Delhi on December 13&14, 2018.

## **S. Irudaya Rajan**

- Participated in Methodology Workshop for the project, 'The Relative Contributions of Adult Daughters and Sons to Elderly Parents' Care in India', at Centre for Research on Rural and Industrial Development (CRRID), Chandigarh during April 2-5, 2018.
- Visited the ILO office at New Delhi to discuss the organisation of the consultation programme on 'Demographic Transition, Migration and Implications for the Kerala Economy' held on May 14, 2018, at Thiruvananthapuram on April 24, 2018.
- Interacted with the students and scholars from the Department of Political Science, Purdue University, USA at Abad Plaza, Kochi on May 2, 2018.
- Organised ILO Consultation on 'Demographic Transition, Migration and Implications for the Kerala Economy' at Mascot Hotel, Thiruvananthapuram and delivered opening remarks of the programme as well as talks on 'Trajectory of Migration from Kerala and Emerging Issues' and Migration Transition in Kerala and Implications for the Kerala Economy on May 14, 2018.
- Delivered a talk on Highlighting Innovative Methods and Impact in the Conference on Global Migration Conversation funded by ESRC-AHRC at Habitat World, at India Habitat Centre, in Delhi, India organised by The London International Development Centre (LIDC) Migration Leadership on May 22-23, 2018.
- Delivered a talk on the topic, 'Mapping International Migration: Evidences from Kerala Migration Survey, 1998-2018' in the 8<sup>th</sup> International Conference on Sustainable and Human Development through Spirituality, Peace Economics and Peace Science and Future of Management Education: Country Specific Design and Delivery with special reference to Developing Countries and Countries in Transition, organised by Acharya Bangalore B-School ABBS School of Management Bengaluru, India in cooperation with SPES Institute Europe, Mahatma Gandhi Centre for Conflict Prevention and Management, ABBS School of Management, Binghamton on June 6, 2018 at Bengaluru.
- Participated in the Inception Workshop of the DBT Project organised by Centre for Development Studies at Fort Kochi during June 7-8, 2018.
- Chaired a discussion on preparing a Policy Brief on Youth Migration and Labour Market in International Conference on 'Achieving Youth-Specific SDGs: Key Challenges and Policy Responses' held at RGNIYD, Tamil Nadu in collaboration with CYP, ILO, IOM and UNESCO-MGIEP on June 16, 2018.

- Delivered a keynote address for Consultation on Safe Migration held at Thiruvananthapuram organized by National Workers Welfare Trust (NWWT) Kerala Region, Thiruvananthapuram on June, 25, 2018.
- Discussed the scope, methodology and preliminary findings of the Study in the inception presentation with the Commission members of the Fifteenth Finance Commission at New Delhi on June 28, 2018.
- Delivered a lecture on ‘Higher Education among Disadvantageous Groups’ in the Refresher Course in ‘Higher Education and Women Managers’ organised by Human Resource Development Centre at University of Kerala, Kariavattom Campus on July 3, 2018.
- Discussed the progress of DBT Project and met officials to set up the project at Patna, Bihar on July 5-6, 2018.
- Invited to participate in a consultation workshop on ‘Exploring Research and Policy Gaps in Low-income Migrants’ Access to Services and Protection in India (and beyond)’ in connection with the collaborative research of School of Social and Political Science in Edinburgh, UK and Department of Sociology at Delhi University funded by Economic and Social Research Council (ESRC) and Indian Council for Social Science Research on July 13, 2018 at New Delhi.
- Chaired the plenary session on ‘SDGs through the Lens of Migration,’ on July 24<sup>th</sup> 2018 and attended in the panel discussion about the Policy Brief on 27th July 2018 in the International Conference on Achieving Youth-specific SDGs: Key Challenges and Policy Responses organized by Rajiv Gandhi National Institute of Youth Development (RGNID) at Sriperumbudur, Tamil Nadu.
- Delivered a talk on ‘Issues and Concerns of Migrants – Migrant Labour and Issues of Protection and Health,’ in the Capacity Building Workshop on “Understanding Migration” at Loyola College Chennai on July 30, 2018.
- Participated in the Panel Discussion on Age Structural Change and its Economic Implications in India organized by the National Statistics System Training Academy, held on October 8, 2018, in New Delhi.
- Participated in the discussion on Drafting of Emigration Bill 2018: Meeting with Stakeholders organised by the Overseas Indian Affairs Division of the Ministry of External Affairs, Government of India, held at Pravasi Bharatiya Kendra, Chanakypuri, New Delhi on November 20, 2018.
- Participated in the Silver Jubilee Celebrations of the Bangalore Rural Educational and Development Society with a conference on Building the Future Together at Bangalore and delivered a talk on Migration Scenario in Kerala: Challenges and Way forward on November 23, 2018.

- Organised the British Academy Workshop 4 on Climate Change, Indian Transnationalism and Development at International Institute for Population Sciences, Mumbai on November 27, 2018.
- Participated in the International Conference on the State of the Global Protection System for Refugees and Migrants organised by Mahanirban Calcutta Research Group, held at Hotel Hyatt and spoke on Dreaming Mobility and Buying Vulnerability: The State of the Global Protection for Migrants during November 29-30, 2018.
- Spoke at the valedictory address on the Future of Bihar Migration at the International Conference on The Migrant and the State: From Colonialism and Neo-liberalism organised by the Labour Resources Department, Government of Bihar and Tata Institute of Social Sciences, Patna Centre, held at the Panache Hotel, Patna during November 29-1 December 2018.
- Participated as a keynote speaker at the International Seminar on Being/s in Motion: Migrations and Dislocations organised by Krishna Menon Memorial Government Women's College, sponsored by Directorate of College Education, Kerala, held at Kannur during 4-6 December 2018 and spoke on The Emotional toll of Migration on Left Behind Family Members.
- Participated in the Symposium on Ethical Research Issue on Aging as one of the speakers in the 14th World Congress of Bioethics and 7th National Bioethics Conference held at St John's National Academy of Health Sciences, Bangalore and spoke on "Problem Behind Living Longer: An Experience of Kerala Aging Surveys" during December 5-7, 2018.
- Participated as a speaker in the Colloquium on Migration and Human Trafficking: A Human Rights Perspective organised by Department of Criminology and International Justice Mission held at University of Madras and spoke on Migration and Human Rights on December 11, 2018.
- Participated in the International Conference on Sexual Exploitation of Children in a Digital Era, organised by the International Justice Mission and West Bengal Commission for Women, held at Biswa Bangla Sarani, Kolkatta, spoke in the session on Solutions: Generating Ideas/ Recommendations for Governing Bodies during December 14-15, 2018.
- Participated as the plenary speaker in the State Level Consultation on Unsafe Migration organised by Caritas India, held at Hotel Aroma, Chandigarh and spoke on Challenges in Combating Unsafe Migration in Punjab on December 18, 2018.

- Inaugurated the Scientific Writing Workshop at International Institute for Population Sciences, Mumbai, 2018 and spoke on Journal Instructions for authors during 20-24, December 2018.
- Participated in the 39th Annual Conference of the Association of Economists in Tamil Nadu, held at Madras Christian College, Chennai and spoke in the panel discussion on Indian Economy at the Cross Roads during December 21-22, 2018.
- Participated as an external expert for the Doctoral Committee on the thesis of Migration and Political Ecology, held at Rajiv Gandhi National Institute of Youth Development, Chennai on January 21, 2019.
- Delivered a talk on Return Emigrants in Kerala: Potential for Development? at the International Conference on Restructuring Kerala Economy: Alternative Perspectives, organised by the Inter-University Centre for Alternative Economics, Department of Economics, held at Senate Hall, Thiruvananthapuram, during January 21-23, 2019.
- Participated in the Panel discussion on Economics of Ageing at the Seventh Annual Conference on Indian Health Economics and Planning Association, held at Gulati Institute of Finance and Taxation, Thiruvananthapuram during January 24-25, 2019.
- Participated in the 2nd China-India Population Ageing Forum, held at the Tata Institute of Social Sciences, Mumbai and spoke on Migration and Ageing in India during January 28-29, 2019.
- Participated in the State Level Seminar on Develop Road Map to Ensure Safe Migration of Unorganized Workers: With a Special Focus on Welfare of Women and Children in Gujarat organised by UNICEF, Gujarat held at Mahatma Gandhi Labour Institute during 30-31 January 2019 and spoke on the technical session on Preventive Interventions to Address Unsafe Migration in Children, Adolescents and Women – Sharing Good Practices.
- Delivered a Ruby Year Celebrations inaugural lecture on the Future of Migration in Kerala at the Department of Demography, University of Kerala, on February 1, 2019.
- Visited the International Institute for Population Sciences, Mumbai, to develop a proposal on climate change and migration in the context of Kerala floods with Institute for Environment, Weather and Climate Risks Group, Zurich, Switzerland on February 5, 2019.
- Attended a group meeting with the visiting Vice President (External), University of Guelph, Toronto, Canada at The Lady Connemara Lounge at Hotel Taj Connemara on February 8, 2019.

- Delivered a keynote address in the seminar on Dimensions and Dynamics of Inter-State Labour Migration: A Discourse, organised by Nirmalagiri College, Kannur, on February 15, 2019.
- Delivered a keynote address at the International Conference on New Directions for Research on Aging: Work, Care and Mobility held at Manipal Academy of Higher Education, Manipal, Karnataka, organised by the International Institute for Population Sciences, Mumbai, Centre for Innovative Ageing, Swansea University, UK and Department of Human Geography and Planning, Utrecht University, The Netherlands on March 1, 2019.
- Chaired a session on the topic Marriage and Fertility at the National Seminar on Population Dynamics in India and its Implications on Health and Environment held at National Institute of Rural Development and Panchayat Raj, Hyderabad organised by International Institute for Population Sciences, Mumbai on March 7, 2019.
- Delivered Valedictory address at the Second International Conference on Migration, Diaspora and Development: An Indian Perspective on 8th March 2019 organised by Centre for Diaspora Studies, Central University of Gujarat and supported by Ministry of External Affairs, Government of India and Indian Council for Social Sciences, Research, New Delhi.
- Spoke in the plenary session of the International Seminar on Arrangements for Elderly Care in an Urban Context: India and China organised by the Institute of Chinese Studies, Delhi, held at the India International Centre, Delhi on March 12, 2019.
- Participated in the International Conference on Ageing in Asia organised by the Institute for Social and Economic Change at Bangalore and spoke on Migration and Ageing: Issues and Perspectives during March 14-15, 2019.
- Attended the Eight Technical Advisory Committee meeting of the Longitudinal Ageing Study in India (LASI) organized by the International Institute for Population Sciences, held at National Institute of Health and Family Welfare, New Delhi, on March 18, 2019.

### **Jayaseelan Raj**

- Presented a paper 'Egalitarianism Beyond the West,' at a seminar held and sponsored by National Institute of Advanced Studies, Bangalore on September 21, 2018.



- Presented a paper Women Labour and the Social Reproduction of Hierarchy in Kerala's tea plantations at IGIDR, Mumbai, organised and sponsored by Indian Society for Labour Economics, during December 19-21, 2018.

### **K.J. Joseph**

- Special Lecture on 'Plight of Plantation agriculture in India,' delivered at the National workshop "Dimensions of Agrarian Distress" at MANAGE, Hyderabad in collaboration with Centre for Economic and Social Studies (CESS), International Crops Research Institute for the Semi-Arid Tropics(ICRISAT), Telangana Economic Association(TEA) April 20-21,2018.
- Presented a paper 'Digital Economy, Industry 4.0 and Development Lessons from IT Revolution,' at the Plenary session 'Global Regimes and Industry 4.0: Implications for Domestic Capacity in India',organized by RIS, as prelude to the third Annual Meeting of the Asian Infrastructure Investment Bank (AIIB), Bangalore on May 3, 2018.
- Delivered a lecture on 'Technology and Trade,' in the RIS-EXIM Bank Summer School on International Trade Theory and Practices at RIS New Delhi during June11-18,2018.
- Presented a paper on 'Technology-productivity Conundrum in India's Manufacturing Under Globalization: A Preliminary Exploration Using Innovation System Perspective,' in the Silver Jubilee Seminar of the Madras School of Economics on "Technology and Development" organised in partnership with Knowledge Forum, Madras School of Economics on August 11, 2018.
- Delivered the Inaugural Address on 'Sustainable Development: Whither Innovation,' in the 5<sup>th</sup> Indialics Academy, Thapar University September 19, 2018.
- Delivered a Special Address on 'Reflections on the Future of India's Plantation Agriculture in the 21st Century,' at Meeting of the Karnataka Planters' Association on October 31, 2018.
- Delivered the Presidential Address on 'Innovation and Inequality under Globalization,' at the 16th Globelics International Conference and was a speaker at the special session on Agricultural Innovation System.
- Delivered the Valedictory Address on 'Imagining industrialization in the21st Century,' in the International Conference on Planning for industrialization in 21<sup>st</sup> Century, organised by the Department of Economics, Punjabi University, Patiala, November 15-16, 2018.

- Delivered the Foundation Day Lecture on ‘Imagining India’s Plantation Agriculture in the 21st Century,’ at the Kodagu Scientist Forum on November 20, 2018, at Kodagu.
- Delivered the Keynote address on ‘When Makers of Value are not the Takers of Value: Towards a Perspective for Tea Plantation Development in India,’ in the Seminar on Tea Plantation Economy in India: Issues of Value Chain and Decent Work, organised by Centre for Labour Studies & Social Protection School of Social Sciences & Humanities, Tata Institute of Social Sciences, Guwahati Campus during December 7-8, 2018.
- Delivered a Special Lecture on ‘Imagining Shared Prosperity in a Context of Heightened Inequality under Globalization,’ in the international seminar on International Trade War Shared Prosperity, SB college Changanachery on December 11, 2018.
- Made a presentation on ‘Plight of Plantation Agriculture in India,’ in the conference on Nation for Farmers organised by Delhi Science Forum, India International Centre on March 2, 2019.

#### **M. Parameswaran**

- Presented a paper ‘ Migration, Remittances and Dutch Disease: Evidence from Kerala economy,’ at a seminar organised by Public Policy Research Institute, Thiruvananthapuram, and conducted at the Government Guest House, Thucud, Thiruvananthapuram on April 12, 2018.

#### **Praveena Kodoth**

- Discussant at a Workshop on Women Migrating in India: Evidence from Odisha organised by the Centre for Women’s Development Studies (CWDS), at the India International Centre, New Delhi on November 27, 2018.
- Presented a paper ‘The Limits of Safe migration programmes: The ECR Category and failed protection of rights of women migrant workers,’ at a seminar on ‘Being/s in Motion: Migrations and Dislocations conducted, organised and sponsored by PG Department of English & Research Centre of KMM Government Women’s College during December 12&13, 2018.
- The Limits of Safe migration programmes: The ECR Category and failed protection of rights of women migrant workers at the pre-Conference Panel titled ‘Framing Migration and Development from a Gender perspective,’organised jointly by the Indian Society of Labour Economics and the Indian Association for Women’s Studies at IGIDR, Mumbai on December 18, 2018.

### **Ritika Jain**

- A paper titled ‘Bribery and Firm Performance in India: A Political Economy Perspective,’ was presented at a seminar organised at Centre of Studies in Social Sciences, Kolkata in January, 2019.
- Presented a paper ‘Is R&D Spending Influenced by Disinvestment and Local Political Corruption? The Case of Indian Central Public Sector Enterprises,’ at a seminar organised by the Indian Statistical Institute at New Delhi in December 2018.
- A paper ‘Job Reservations, Disinvestment and Firm Performance among Indian Public Sector Enterprises,’ was presented at a seminar organised by IGIDR and sponsored by ISLE during December 2018.

### **Sunandan Ghosh**

- Presented a paper “International Trade and Wage-gap in Indian Manufacturing: Some Explorations” in the 9th National Seminar on Industrial Statistics organized by the Industrial Statistics Wing, Ministry of Statistics & Programme Implementation at DGCI&S, Kolkata on 14<sup>th</sup> December, 2018.
- Presented the paper “International Trade and Wage-gap in Indian Manufacturing: Some Explorations” in the 60<sup>th</sup> Annual Conference of the Indian Society of Labour Economics held at IGIDR, Mumbai on 19<sup>th</sup> December, 2018.
- Presented the paper “The Case of the “Missing Middle” in the Indian Manufacturing Sector: A Firm-Level Analysis” in the 60<sup>th</sup> Annual Conference of the Indian Society of Labour Economics held at IGIDR, Mumbai on 21<sup>st</sup> December, 2018.
- Presented the Commentary on “Protectionism: US Tariff Policy and India’s Response” along with Prof. M. Agarwal on 14<sup>th</sup> November, 2018 at a seminar at CDS.
- Presented a paper ‘The Case of the ‘Missing Middle’ in the Indian Manufacturing Sector: A Firm-Level Analysis,’ at the seminar organised by TIES at NISM, Patalganga, Maharashtra on October 1, 2018.

### **Sudip Chaudhuri**

- Presented a paper ‘Planning Strategy, Liberalization and Industrial Dynamism,’ at the Diamond Jubilee Lecture Series, St Berchmans College, Changanassery on December 6, 2018.
- A paper titled ‘Impact of Product Patents on Pharmaceutical Market Structure and Prices in India,’ was presented at Key Experts and Civil Society Meeting of the Accessibsa Project on Pharma Patents, Bangalore during December 2-3, 2018.

## Sunil Mani

- Made a presentation on ‘Emerging Sectoral Challenge for India The Case of the S&T Sector’ at the panel discussion on India at Seventy: New Development Challenges at Institute for Social and Economic Change, Bangalore on April 25, 2018.
- Inaugural address on Quality assurance in official Statistics, National Statistical Day, NSSO, Trivandrum on June 20, 2018.
- Presented a paper on ‘Diffusion of Automation Technologies and their Potential and actual effects on Manufacturing Employment in India,’ at the Workshop on Labour-intensive Manufacturing, IGIDR, Mumbai, on July 19, 2018.
- Made a presentation on ‘Automation and Manufacturing Employment,’ at the Panel Discussion on Industrial Development at Centre for Economic and Social Sciences (CESS), Hyderabad on October 9, 2018.
- Selection Committee meeting for Registrar at the University of Goa, November 28-29, 2018.
- Participated in the inauguration of Regional Training camp on 77th Round and Time Use Survey, National Sample Survey Organisation, Trivandrum on December 17, 2018.
- Presented a paper on ‘Non Resident Keralites, An Analysis of their Contribution to Kerala’s Economy’ and also chaired another session at the international conference on *Indic Identity of Indian Diaspora: Its Historical, Philosophical and Contemporary Contributions to the World and India*, jointly organized by Organisation for Diaspora Initiatives (ODI), and Banaras Hindu University (BHU) at BHU, Varanasi during January 24 -25, 2019.
- Presented a paper on ‘Diffusion of Automation Technologies and their Potential and Actual Effects on Manufacturing Employment in India’ at the International Conference on - *Future of Employment: Challenges and Opportunities (FECO - 2019)* by Symbiosis School of Economics (SSE), Pune on February 20, 2019.
- Presented a paper on ‘Agrobiodiversity in Kerala An Analysis of Policies Favouring Agrobiodiversity’ at the Experience Sharing Workshop, *Strengthening Agriculture and Allied Sector Contributions to India’s National Biodiversity Action Plan 2008 and the National Biodiversity Targets*, UN Conference Hall, FAO, New Delhi, March 6, 2019.
- Presented a paper on ‘TRIPS Compliance of India’s Patent Regime and its Effect on Innovation Activity at the conference on ‘Trade War – Does it affect the

Global Free Trade Order?', Department of Commerce, University of Kerala, March 26, 2019.

### **Seenath Peedikakandi**

- Presented a paper 'To Conserve or to Explore? Farm Level Strategies to Manage Groundwater, at a Conference on Agricultural and Sustainable Development Goals organised by Agricultural Economics Research Association and sponsored by ICAR, NABARD at NDRI-Karnal on November 15, 2018.

### **N. Vijayamohanan Pillai**

- Chaired a technical session and presented a paper on 'Don Quixote in Utopia: Some Reflections on "Demonetized" Economy,' and also delivered the Presidential Address during the Valedictory Session on March 2 at the UGC sponsored National Seminar on "Demonetized Indian Economy – A Cross-Sectoral Analysis; Building a Resilient Economy?", organised by the PG and Research Department of Economics, Mar Athanasius College (Autonomous), Kothamangalam, during March 1-2, 2019.
- Attended the meeting of the Board of Studies of Department of Economics, Mar Athanasius College (Autonomous), Kothamangalam, on 27 March 2019.
- Attended the meeting of the Board of Studies of Department of Economics, St. Teresa's College (Autonomous), Ernakulam, on 23 March 2019 and delivered a lecture-cum-computer session on Gretl package.
- Attended as the Chief Guest at the inaugural session of the three-day workshop on PG Curriculum Design and Syllabus Revision, organized by the PG Board of Studies of MG University on January 28, 2019, at Government College, Kottayam, and delivered a special lecture on 'Significance of Econometrics and Mathematics in Economics'.
- Presented a paper on 'Energy Efficiency in Kerala,' on 21 January in the Technical Session of the International Conference on "Restructuring Kerala Economy: Alternative Perspectives", organised by the Inter-University Centre for Alternative Economics of the Department of Economics, University of Kerala, Karyavattom Campus during 21 – 23 January 2019.
- Attended the meeting of the Board of Studies of Department of Economics, St. Teresa's College, (Autonomous), Ernakulam, on November 11, 2018.
- Delivered two lectures on 'Modeling Water Resource Management,' at the National Level One-Day Workshop on "Water Resource Management in Tamil Nadu", organised by the MS University-Constituent Model College,

Nagalapuram, Vilathikulam, Thoothukudi (Dist), Tamil Nadu on October 12, 2018.

- Delivered the keynote address of the seminar on the topic ‘Behavioural Economics and Strategic Decision Making,’ on 27th September at the National Seminar on Behavioural Economics, organised by the Dept of Economics, Maharajas College, Ernakulam (sponsored by the Directorate of Collegiate Education, Govt of Kerala), during September 27-28, 2018.
- Attended as a member of the screening committee of Inter-University Centre for Alternative Economics for the selection of Projects/Internships/Associateships, at Department of Economics, Kariavattom on 23rd May 2018.
- Attended as a member of the screening committee of Inter-University Centre for Alternative Economics for the selection of Research Associates at Department of Economics, Kariavattom on 26th April 2018.
- Attended as a member of the screening committee of Inter-University Centre for Alternative Economics for the selection of Research Associates at Department of Economics, Kariavattom on 18th April 2018.
- Participated in the meeting of the Research Advisory Council of the Energy Management Centre, Trivandrum, and evaluated the draft of the research report on ‘End-Use Energy Efficiency in Residential Sector,’ at EMC, Sreekaryam, Trivandrum on 7 April 2018

### **Vinoj Abraham**

- Presented a paper ‘Dynamic Nature of Jobless Growth in India,’ at the National Seminar on Trade and Labour in the Post-Globalised World, organised and sponsored by University College, Kerala University, Thiruvananthapuram on December 13, 2018.
- Presented the paper ‘Dynamic Nature of Jobless Growth in India,’ at the 60<sup>th</sup> Indian Society of Labour Economics Annual Conference held at IGIDR Mumbai during 19<sup>th</sup> to 21<sup>st</sup> December 2018.
- Presented a paper ‘Emerging Trends in Labour Market in Kerala,’ at the International Conference on “Restructuring Kerala Economy: Alternative Perspectives” sponsored by Inter-University Centre for Alternative Economics at Senate Hall, University of Kerala, Thiruvananthapuram during January 21-23, 2019.
- Co-presented with Ritika Jain the paper ‘Job Reservations, Disinvestment and Firm performance among Indian Public Sector Enterprises,’ at the 60<sup>th</sup> Indian

Society of Labour Economics Annual Conference held at IGIDR Mumbai during 19<sup>th</sup> to 21<sup>st</sup> December 2018.

- Co-presented with Sunandan Ghosh the paper ‘The Case of the “Missing Middle” in the Indian Manufacturing Sector: A Firm-Level Analysis,’ at the 60th Indian Society of Labour Economics Annual Conference held at IGIDR Mumbai during 19th to 21st December 2018.
- Presented the paper ‘Dynamic Nature of Jobless Growth in India,’ at the National Seminar on Trade and Labour in the Post-Globalised world at University College, Thiruvananthapuram, 13<sup>th</sup> December 2018.
- Participated in the “Fairwork Foundation-IIITB Online Platform Labour Workshop” at IIIT Bangalore, organized by IIIT Bangalore and Fairwork Foundation on 5<sup>th</sup> July, 2018

### **Participation of Students in Seminars, Conferences, Workshops**

#### **Rajesh, ID**

- Presented a paper ‘*Marital Status and Work Preference of Females in India*’ in the International Conference on “Achieving Youth Specific SDGs: Key Challenged & Policy Responses” held at Rajiv Gandhi National Institute of Youth Development under Ministry of Youth Affairs & Sports, Government of India, Tamil Nadu during 25<sup>th</sup> to 27<sup>th</sup> July 2018 in collaboration with The Commonwealth, UNESCO-MGIEP, UNICEF, UNV, ILO and IOM.

### **(D) SERVICES TO ACADEMIC COMMUNITY**

#### **(a) REPRESENTATION IN COMMITTEES/TASK FORCES/ADVISORY BODIES**

##### **MEMBER OF COMMITTEES**

#### **Devika, J**

- 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).

#### **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.

**S. Irudaya Rajan**

- Co-chairperson of the Working Group on Non-Resident Keralite Affairs, Government of Kerala 2016-2021.
- President, IIPS Alumni Association, since 2018.
- Commission Member, Model International Mobility Convention, Global Policy Initiative, Columbia University, New York
- Member, Governing Body, Southern Regional ICSSR Centre, Hyderabad.
- Expert Committee member, LASI
- Member, Population Projection Team, Ministry of Finance and International Institute for Population Sciences
- Member, Population Projection Team, Ministry of Health and Family Welfare, Government of India.

**Jayaseelan Raj**

- Member, MA Evaluation Committee, St. Johns 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**

- Visiting Professor, National Graduate Institute for Policy Studies, Tokyo, Japan.
- Member, Court, Jawaharlal Nehru University, New Delhi.
- Member, Academic Council, Jawaharlal Nehru University. New Delhi.
- Member, Governing Board, International Centre for Free and Open Source Software.
- Member, International Advisory Steering Committee, Centre for Science, Technology and Innovation Indicators (CeSTII), Human Sciences Research Council, Republic of South Africa.
- Part-Time Visiting Faculty, Indian Institute of Management Calcutta, Kolkata.

**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.

#### **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 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).

#### **Vinoj Abraham**

- Member, Subject Expert for Economics for PhD Preliminary Qualifying Examination at University of Calicut, 2018-19.
- Member, Board of Studies, School of Development Studies, Rajiv Gandhi National Institute for Youth Development-Deemed University, Sreeperumbudur, Tamil Nadu, 2018.
- Member, Executive Council, Indian Society of Labour Economics

## **TEACHING, CO-ORDINATING, TRAINING PROGRAMMES AT CDS/ EXTERNAL TEACHING**

### **Abhilash T**

- Delivered a lecture on ‘Ethics in Social Science Research,’ at the ICSSR Sponsored Capacity Building Programme, sponsored by ICSSR at the CDS during March 11 - 16, 2019.

### **Beena P.L**

- Presented a paper ‘Pattern of International Trade through Kerala Ports under WTO Regime,’ at Open seminar presented at CDS, Trivandrum, Kerala, August.2018.
- A paper ‘Trends, Motives and Developmental Implications of Outward Investments from Indian Industries,’ was presented at an Open seminar at CDS, March, 2018.
- Presented a paper along with George Paily titled ‘Pattern of International Trade through Kerala under WTO regime’ at Open seminar presented at CDS, September, 2018.

### **Chandril Bhattacharyya**

- Presented a paper ‘Union, Efficiency of Labour and Endogenous Growth,’ at a seminar held at CDS on February 14, 2019.

### **J. Devika**

- Presented a paper ‘Walking on Eggshells in Cyberspace: A Report on Gender Justice, Law Enforcement, and Women’s Struggles and Negotiations in Malayali Cyberspace’ co-authored with Darshana S Mini, Chithira Vijayakumar, Elizabeth Alexander, and Resmi PS at an Open Seminar at CDS on March 21, 2019.
- Coordinated and conducted Two one-day seminars and one roundtable, conducted under the RULSG at CDS, The details are to be found in the report on the work of the RULSG
- Took Sessions in training programmes organized by colleagues and collaborators. Several seminars and sessions in training programmes offered all over Kerala including at CMS College, Kottayam, Dept of Political Science, University of Kerala, Dept of Economics, University of Kerala, Dept of Sociology, University of Kerala, Institute of English, University of Kerala, Government College, Elanthoor, BCM College, Kottayam, Catholicate College, Pathanamthitta, Maharajah’s College, Ernakulam, Farook College, Kozhikode, Loyola College, Thiruvananthapuram , St Thomas College, Kozhenchery, and other colleges.

**Rajit Biswas**

- Conducted a seminar on ‘Tariff Protection, Home Market Effects and Non-Tradedgoods,’ at the CDS on February 15, 2019.

**Hrushikesh Mallick**

- Served as a Chairperson for a session in the conference on ‘Two Decades of Migration Research at CDS,’ organized at CDS during September 17-18, 2018.
- Served as a discussant for a paper ‘Bribery and firm Performance in India: A Political Economy Perspective’ presented at the Conference on Economic Theory and Policy, held at CDS on 14<sup>th</sup> Feb 2019.
- Presented a paper ‘Role of Governance and ICT Infrastructure in Tax Revenue Mobilisation: An Empirical Assessment for India,’ at a seminar conducted at CDS on March 29, 2019.

**S. Irudaya Rajan**

- Coordinator along with US Mishra for the Thirteenth short term training programme on methods and approaches in research on migration issues,’ sponsored by REALM, with a strength of 35 participants, at the CDS during September 17-21, 2018.
- Took one session at the ICSSR Sponsored Capacity Building Programme: Pathways of Social Research: A Methodological Training for Doctoral Candidates of SC/ST and other Marginalized Groups, sponsored by the ICSSR and held at the CDS during March 11-16, 2019.
- Delivered a talk on Kerala Migration Survey 2018 in the lecture Series (No.5) at the Department of Sociology, Sree Sankaracharya University of Sanskrit, Kalady, on January 31, 2019.
- Delivered a talk to the Students of Tata Institute of Social Sciences, Hyderabad, on Migration and Development: The Kerala Experience on February 14, 2019.

**Jayaseelan Raj**

- Taught two sessions at the Winter School at French Institute, Pondicherry, organised by French Institute, Pondicherry during December 4-7, 2018.
- Participated in the seminar ‘Work, Workplace and the Labouring Poor’, conducted at CDS during December 12-14, 2018.

- Coordinator (along with Abhilash T) of the ‘ICSSR Capacity Building Programme,’ sponsored by the ICSSR, consisting of 40 participants at the training programme held at the CDS During March 11-16, 2019.

### **Manmohan Agarwal**

- Co-ordinated the two-day conference ‘Economic Theory and Policy’ sponsored by the RBI and held at the CDS on February 22 & 23, 2018. 14 papers were presented, 6 by members of CDS and 8 from other institutions.
- Taught MA courses on macro open economy macro (with Sunandan Ghosh) and trade and development.
- Participated in the teaching of the courses on Indian Economy and Economic Development at the M.Phil level.

### **Praveena Kodoth**

- Took one session on ‘We don’t pay dowry’: Interpreting assertion denial and silence in field research’ at the ICSSR Research Methodology workshop, sponsored by the ICSSR at the CDS on March 11, 2019.
- Delivered a Lecture on ‘Women, work and gender in Kerala’ to students from Norway attending a short academic programme as part of an agreement of CDS with the Norwegian University of Life Sciences, Norway on September 8, 2018 at the CDS.

### **Ritika Jain**

- Presented a paper ‘Job Reservations, Disinvestment and Firm Performance among Indian Public Sector Enterprises,’ at an open seminar at CDS on November 16, 2018.
- Presented a paper ‘Bribery and Firm Performance in India: A Political Economy Perspective,’ at the CDS on February 15, 2019.
- Presented a paper ‘Tea or coffee? On the Determinants of Coffee Consumption in India,’ at CDS on February 28, 2019.
- Presented a paper ‘Industrial Investment Inception and Implementation in India: Broad Trends and Patterns at the State Level,’ at an open seminar at the CDS on March 14, 2019.

### **Seenath Peedikakandi**

- Presented a paper ‘To conserve or to explore? Farm Level Strategies to Manage Groundwater at the conference on Agricultural and Sustainable Development Goals organised by Agricultural Economics Research Association and Sponsored by ICAR, NABARD at NDRI-Karnal on November 15, 2018.
- Presented a Technical session at the National Workshop on Environmental Economics, sponsored by Directorate of Collegiate Education, Govt of Kerala at the Government College, Attingal, Trivandrum on October 30, 2018.

### **Srikanta Kundu**

- Presented a paper ‘Effect of Economic Policy Uncertainty on Stock Market in Different Market Conditions: A Regime Switching Analysis for G-7 countries, at CDS during 14<sup>th</sup> -15<sup>th</sup> February 14-15, 2019.

### **Sunandan Ghosh**

- Presented a paper ‘Skilled-Unskilled Wage-gap in Indian Manufacturing: Some Explorations,’ at an open seminar at CDS on February 14, 2019.
- Presented a paper ‘The Case of the ‘Missing Middle’ in the Indian Manufacturing Sector: A Firm-Level Analysis,’ at an open seminar at CDS on December 4, 2018.
- A paper titled ‘Protectionism: US Tariff Policy and India's Response,’ was presented at a seminar held at CDS under the Commentary on India's Economy and Society Series, on November 14, 2018
- Coordinator of the conference on ‘Indian Economy and Society: Lateral Explorations,’ sponsored and conducted by the CDS during December 12-14, 2018.
- Delivered one session at the ICSSR Research Training Programme sponsored by the ICSSR, organised and conducted at the CDS on March 3, 2019.

### **Sudip Chaudhuri**

- Delivered a lecture on ‘The Role of the State in Creating a Domestic Pharmaceutical Manufacturing Industry in India’, at the Training Course on the Design and Evaluation of Innovation Policy, at CDS on February 5, 2019.
- Delivered Lectures on Macroeconomics at the Teaching Innovations Programme in Economics (TIPE) at CDS during March 25 to 27, 2019.

### **Sunil Mani**

- Coordinator along with Professor Anthony Arundel of the Design and Evaluation of Innovation Policy programme sponsored by United Nations University-MERIT, Maastricht, The Netherlands with 40m participants during February 4-8, 2019.
- Took 2 sessions at the Design and Evaluation of Innovation Policy programme sponsored by United Nations University-MERIT, Maastricht, The Netherlands at the CDS on February 7 and 8, 2019.
- Presented a paper ‘Dimensions of India’s Intellectual Property Right System, How many Patents are Commercially Exploited in India?’ at an open seminar at CDS on May 8, 2018.

### **Udaya Shankar Mishra**

- Delivered 3 sessions at the Capacity Building Programme for Social Science Faculty Members, organised by Sardar Patel Institute of Economic and Social Research (SPISER) Ahmedabad and sponsored by Indian Council of Social Science Research during February 18-19, 2019.

### **Vijayamohanan Pillai, N**

- Delivered twelve lecture sessions on ‘Basic econometrics’ at the Three-day Workshop on Basic Econometrics, organized by the [Department of Economics, Union Christian College](#), Aluva, during March 20-22, 2019.
- Delivered eight lecture sessions on ‘Classical Assumptions: Violations and Remedies’ on March 18 and 19 at the Workshop on Teaching Econometrics for College teachers, organised by the Centre for Budget Studies, Cochin University of Science and Technology Kochi, during March 14-20, 2019.
- Took four lecture-cum-computer sessions on ‘Time-series Analysis’ at the Workshop on Applied Statistics and Data Analysis for Science and Society, organised by the Department of Agricultural Statistics, College of Agriculture, Vellayani, Trivandrum, during March 14-16, 2019.
- Delivered a lecture on ‘Interpreting Statistical Tests and Regression Coefficients’ and attended as an evaluator in the Doctoral Colloquium at the Three day National Workshop on ‘Academic Writing and Doctoral Colloquium’ organised by the Department of Economics, University of Kerala, Thiruvananthapuram during March 7-9, 2019.
- Visiting Professor at Gokhale Institute of Politics and Economics, Pune also delivered 22 lecture sessions during February 19- 24, 2019 on ‘Statistics and

Operations Research’ course of M.Sc. Programme in Economics, offered during the Semester of December 2018 – April 2019.

- Delivered eight lecture sessions at the Workshop on ‘Panel Data regression Modeling,’ organised by the Department of Economics, St. Joseph’s College, Devagiri, Kozhikode, on February 14-15, 2019.
- Delivered eight lecture cum-computer sessions on ‘Basic Econometrics,’ at MG University-sponsored Two-Day Workshop on Basic Econometrics jointly organized by the Departments of Economics of Baselius College and BCM College, Kottayam on 31 January and 1 February 2019.
- Attended as the Chief Guest at the inaugural session of the three-day workshop on PG Curriculum Design and Syllabus Revision, organised by the PG Board of Studies of MG University at Government College, Kottayam, and delivered a special lecture on ‘Significance of Econometrics and Mathematics in Economics’ on January 28, 2019.
- Served as the External Expert of the Proposal Defense of a Doctoral Scholar, Mr Gopikumar, on the topic ‘Determinants of the trading behaviour of institutional investors in the Indian context,’ on 23 January 2019 at the Amrita School of Business, Ettimadai, Coimbatore.
- Presented a paper on “Energy Efficiency in Kerala” on 21 January 2019 afternoon in the Technical Session of the International Conference on “Restructuring Kerala Economy: Alternative Perspectives”, organized by the Inter-University Centre for Alternative Economics of the Department of Economics, University of Kerala, Karyavattom Campus during 21 – 23 January 2019.
- Served as a Resource Person in the Faculty Development Programme on Business Analytics organised by the School of Management of the College of Engineering, Trivandrum (CETSOM) during January 19-23, 2019 and delivered four lecture-cum-computer sessions on ‘Time Series Analysis,’ during the forenoons of 21 and 22 January 2019.
- Delivered a Guest Lecture on 18 January 2019 forenoon (two lecture sessions) for the Economics students on the topic ‘*Linear Regression Model*’ and attended as the Resource Person in Faculty Training Programme on 18 (afternoon) and 19 January 2019 on the topic ‘*Applications of Time Series in Research*’ (six lecture sessions), organized by the Research Centre and Department of Economics, Lady Doak College, Madurai.
- Served as the External Expert in the Pre-submission presentation of the PhD thesis on ‘Structural Imbalances and Economic Development: the Case of Kerala,’ at the Department of Economics, Kariyavattom Campus on January 16, 2019.

- Attended the meeting of the Board of Studies of Department of Economics, St. Teresa's College, (Autonomous), Ernakulam, on January 1, 2019.
- Chaired the Viva Voce Board for conducting the PhD Viva Voce on the Thesis "An Analysis of the Performance of Targeted Public Distribution System in Kerala" at MG University, Kottayam, on January 10, 2019.
- Delivered eight lecture-cum-computer sessions on 'Multiple Regression, Time Series and Panel Data Analysis,' at Faculty Development Programme on "Multivariate Data Analysis", organized by the Department of Economics, Government Engineering College, Thrissur, and sponsored by the Directorate of Technical Education, Government of Kerala on December 20 & 21, 2018.
- Delivered four lecture-cum-computer sessions on 'Econometric Estimation' at the Training on Econometric Analytical Procedures, organized by the State Academy on Statistical Administration (of the Bureau of Economics and Statistics), and funded by the Ministry of Statistics and Programme Implementation, New Delhi at SASA building at Kaimanam, Pappanamcode, Thiruvananthapuram on November 29, 2018.
- Visiting Professor at Amrita School of Business, Kochi. Delivered 27 lecture sessions during the Trimester II of October to December 2018 on 'Macro Economics' course of MBA Programme.
- Delivered two lectures on 'Modeling Water Resource Management,' at National Level One-Day Workshop on Water Resource Management in Tamil Nadu, organised by the MS University-Constituent Model College, Nagalapuram, Vilathikulam, Thoothukudi (Dist), Tamil Nadu on October 12, 2018.
- Delivered the keynote address of the seminar on the topic 'Behavioural Economics and Strategic Decision Making,' at the National Seminar on Behavioural Economics, organised by the Department of Economics, Maharajas College, Ernakulam (sponsored by the Directorate of Collegiate Education, Govt of Kerala) on September 27, 2018.
- Visiting Professor at Gokhale Institute of Politics and Economics, Pune, also delivered 52 lecture sessions during August 20 to September 2, and during 18 to 27 October 2018 on 'Mathematics for Economic Analysis' course of M.Sc. Programme in Economics offered during the Semester July-December, 2018.
- Delivered four lecture sessions on 'Behavioral Game Theory' at the Awareness Programme on Modern Developments in Economics, organised by the State Academy on Statistical Administration (of the Bureau of Economics and Statistics), at SASA building at Kaimanam, Pappanamcode, Thiruvananthapuram; August 8-9, 2018.



- Delivered eight lecture-cum-computer sessions on hypotheses testing and alternative regression techniques at the one week workshop on Research Methodology and Data at Kerala University Campus, Kariavattom, Trivandrum, organised by Internal Quality Assurance Cell (IQAC) Sophisticated Instrumentation and Computation Centre(SICC), and Research Scholars Union, University of Kerala on 26 and 27 July.
- Delivered twelve lecture-cum-computer sessions on econometrics at the Three-day workshop on ‘Applied Econometrics,’ organised by the Department of Economics, Dr John Matthai Centre, University of Calicut, Thrissur, during July 19-21, 2018.
- Two lecture-cum-computer sessions on regression discontinuity were delivered at Three-day workshop on Microeconometrics, organized by TIES in collaboration with Amrita School of Business, Amritapuri, Kollam, during June 19-21, 2018.
- Attended as a member of the screening committee of Inter-University Centre for Alternative Economics for the selection of Projects/Internships/Associateships, on May 23, 2018, at Department of Economics, Kariavattom.
- Delivered twenty lecture-cum-computer sessions on time series econometrics and SEM at the Five-Day Workshop on Statistical Data Analysis, organised by the Department of Commerce, CMS College (Autonomous), Kottayam, from May 14-18, 2018.
- Delivered twenty lecture-cum-computer sessions on econometrics at the Five-Day Workshop on Econometrics, organised by the Department of Economics and Public Policy, Central University of Himachal Pradesh, Dharamshala, Kangra, from May 7 to 11, 2018.

#### **Udaya Shankar Mishra**

- Presented a paper, ‘Ageing in Asia,’ at a seminar organised by Institute for Social and Economic Change, Bangalore and sponsored by Programme for Global Demography HSPH, Harvard University and IIPS Mumbai during March 14-15, 2019.

#### **Vinoj Abraham**

- 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 28 August to 4<sup>th</sup> September 2018 at CDS (jointly coordinated with Darley Jose Kosawick, Norwegian partner)

- Presented a paper ‘Job reservations, Disinvestment and Firm Performance among Indian Public Sector Enterprises’ (jointly with Dr. Ritika Jain) at an open seminar at CDS on November 14<sup>th</sup> 2018.
- Presented a paper under the series “Commentary on Indian Economy” on the topic ‘The Impending Labour Market Reforms in India,’ at the CDS on November 28<sup>th</sup> 2018.
- A paper titled ‘The Case of the Missing Middle in Indian Manufacturing Sector: A Firm-Level Analysis’ (jointly with Dr. Sunandan Ghosh) was presented at an open seminar at CDS on December 4<sup>th</sup> 2018.
- Took one session at the Lecture Series, organised and sponsored by Inter-University Centre for Alternative Economics, University of Kerala, Trivandrum on November 7<sup>th</sup>, 2018.
- Delivered one session at the training programme ‘Training on Management of Official Statistics,’ organised by State Academy on Statistical Administration, Government of Kerala on October, 24<sup>th</sup> 2018.
- Taught one session at the training programme ‘Labour Market Policies and Youth Employment,’ organised by Rajiv Gandhi National Institute for Youth Development, Sriperumbudur and sponsored by Ministry of Youth, Government of India on May 3, 2018.

**(b) OTHER PROFESSIONAL SERVICES RENDERED**

**J. Devika**

- Member, Editorial Board, Indian Journal of Gender Studies.
- Member, Editorial Board, Review of Development and Change.

**P.L. Beena**

- Chaired session in a conference on Indian economy at CDS, December 2018
- Evaluation of M.Phil dissertation submitted at JNU(3)
- Conducting viva of M.Phil dissertation submitted at JNU (2)
- Referee of a research paper submitted to EPW, 2019
- Peer-reviewed three papers for GLOBALICS conference held at Ghana, 2018
- Discussant for two papers in the GLOBALICS conference at Ghana, 2018.

**S. Irudaya Rajan**

- Series Editor, South Asia Migration Report since 2017, Routledge.

- Guest Editor: Journal of Biosocial Science.
- Reviewer: Journals – Economic and Political Weekly, Asian Population Studies, Ageing International, International Migration, Journal of Biosocial Science, Ageing International
- Book Proposal Reviewer: Oxford University Press, Routledge, Springer.
- President, International Institute for Population Sciences Alumni Association.
- 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

### **K.J. Joseph**

- Editor in Chief: Innovation and Development, Taylor and Francis

#### **Editorial Board Member of:**

- International Journal of Technological Learning, Innovation and Development
- International Journal of Institutions and Economics
- African journal of Science, Technology, Innovation and Development
- Millennial Asia

### **Praveena Kodoth**

- Resource person for the ‘Feminist Participatory Action Research on Safe and Fair Migration’, of the Global Alliance against traffic in women based in Bangkok, Thailand
- Resource person for evaluation of Development Interventions in Attappady for K-DISC between 14<sup>th</sup> to 16<sup>th</sup> March 2019. Report submitted on 27 March 2019
- External evaluator of M Phil and Ph D dissertations:  
  
M Phil, Centre for the study of exclusion, JNU  
Ph D, Department of Sociology, Delhi School of Economics  
Ph D, Centre for Historical Studies, JNU  
Ph D, Centre for Regional Studies, University of Hyderabad
- Peer review of papers for World Development and Economic and Political Weekly

### **Sunil Mani**

- Member, Editorial Advisory Board, Research Policy (Elsevier).
- Member, Editorial Board, International Journal of Technology and Globalization (Inderscience).
- Member, Editorial Board, International Journal of Technological Learning, Innovation and Development (Inderscience).
- Member, Editorial Board, International Journal of Development and Social Research.
- External Referee to Research Policy, Technovation, Economic and Political Weekly, Springer, Structural Change and Economic Dynamics, Sage Publications

### **Vijayamohanan Pillai, N**

- Member, World Economics Association (WEA)
- 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.
- Attended as a member of the screening committee of Inter-University Centre for Alternative Economics for the selection of Research Associates on April 26, 2018, at Department of Economics, Kariavattom.
- Attended as a member of the screening committee of Inter-University Centre for Alternative Economics for the selection of Research Associates on April 18, 2018, at Department of Economics, Kariavattom.
- Participated in the meeting of the Research Advisory Council of the Energy Management Centre, Trivandrum, and evaluated the draft of the research report on 'End-Use Energy Efficiency in Residential Sector,' on April 7, 2018, at EMC, Sreekaryam, Trivandrum.
- Evaluated a proposal on 'History of Electricity Sector in Kerala' submitted to Kerala Council for Historical Research for Fellowships for Post Doctoral Research during February 2019.
- Evaluated a PhD thesis during February 2019 on 'An Analysis of the Performance of Targeted Public Distribution submitted to the MG University, Kottayam during November 2018.

Reviewed articles for the following journals:

- Economic and Political Weekly.
- Journal of Quantitative Economics
- American Journal of Theoretical and Applied Statistics.
- Innovation and Development Journal

### **Vinoj Abraham**

- External Examiner for PhD thesis for Indira Gandhi National Open University, New Delhi, 2018
- External Examiner and conducted Viva for PhD thesis for Indira Gandhi Institute of Development Research, Mumbai, 2018
- External Examiner for PhD thesis for University of Hyderabad, Hyderabad 2018
- Associate Editor, Indian Economic Journal

### **(c) HOST TO WALK WITH SCHOLAR PROGRAMME**

Walk with a Scholar (WWS) scheme proposes to arrange specialised 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 Govt. College, Kodenchery, Nehru Arts & Science College, Kanhangad, Krishna Menon Memorial Govt. Women's College, Kannur, Govt. Arts & Science College, Kondotty, Govt. Arts & Science College, Thavanoor, Nirmalagiri College, Kannur, Christ College, Irinjalakuda, and NSS College, Manjeri visited the CDS on 18<sup>th</sup>, 22<sup>th</sup>, 23<sup>th</sup>, 25<sup>th</sup>, 29<sup>th</sup>, 30<sup>th</sup> January, 1<sup>st</sup>, 6<sup>th</sup> February and 6<sup>th</sup> March respectively as part of the 'Walk with the Scholar' scheme of Government of Kerala. A briefing on the activities of the CDS and its academic programmes was given by Dr M Parameswaran for all the batches. In addition to this, they were given a tour of the library to familiarize the library collection and services.

## **AWARDS AND ACCOLADES**

Rounak Sil and Kesava Kumar Gajula current MA first-year students presented a paper titled *"Looking at Crime Through the Lens of Child Labour: A Panel Data Analysis of 24 Countries with a Special Focus on India"* at the ECON-VISVA 2019 summit, held by Visva-Bharati Central University. The presentation also won them the best paper award in their segment.

Amartya Paul (Doctoral Scholar) got the best paper award in the recent *Young Scholars Congress 2019* held recently at the University of Kerala.

## **CDS students excel for their splendid performance at the RBI Internship Programme,**

*In the 3 -month internship:* Ambili N Kumar (2018-20 batch of M A)

*In the 6-month internship:*

Ashwin Thomas Kurien (2012-14 batch of M A, later on, went to doing M Phil and Ph.D at the Centre)

Shihas Abdul Razak (2016-18 batch of M A. Shihas has also done very well at the GRE exam and has written journal articles which are under consideration by refereed international journals)

Manikantha Natraj and Viyanand Thombare of M Phil 2017-19 batch at the December 2018 UGC Net Exam. have been declared eligible to receive the JRF.

One more ex MA student Adrita Banerjee has cleared net JRF this time.

**Super performance of our MPhil students of 2018 at the December UGC NET:**

JRF

1. Ashraful Khalq
2. Sabeer V C (He belongs to our 2016-18 M A batch)
3. Vishnu Venugopal (He belongs to our very first batch of M A, 2012-14)

NET

Satyaki Dasgupta

**MA students of the 2017-19 batch at the December 2018 UGC-NET :**

JRF

1. Ankit Tapara
2. Likhita Tirunagari

NET

Ashley Jose

**M A students of the 2016-18 batch for their success in the UGC NET Exam in December 2018:**

1. Akash Kumar Mienj
2. Anurag
3. Arpita Agarwal
4. Sabeer VC

## 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 199 scholars who were admitted during 1975-2018, **92** scholars have been awarded PhD Degree: 83 from JNU and 9 from KU. **4** theses are under evaluation at JNU; 2 are waiting for PhD Award Notification after their viva voce examination **36** scholars are now in campus. **30** scholars are De-Registered from the programme for employment, etc., **1** scholar is Re-Registered for submission of their thesis and **34** scholars discontinued from the programme to join elsewhere.

#### Overview of the Year

**2018 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 2016 for the Integrated MPhil/PhD programme. All eleven students are likely to submit their MPhil thesis by June 2018. They will be automatically eligible for admission to PhD programme (Provisional) in 2018, as per JNU regulations. Mr. Ayushya Kaul didn't joined PhD Programme at CDS.

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 the 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, six theses were under evaluation at JNU:**

- *International Remittances and its impact on Human Capital Investments in Tamil Nadu.*  
**Valatheeswaran C.**, 2011  
Supervisor: S. Irudaya Rajan
- *Law, Social Norms and Contracts: A Few Essays.*  
**Indervir Singh**, 2008-, ICSSR  
Supervisors: N. Vijayamohanan Pillai & V. Santhakumar



- *Revisiting Formal-Informal-Agriculture Interlinkages in India: A Computable General Equilibrium Analysis.*  
**Anirban Kundu**, 2009.–, ICSSR  
Supervisor: M. Parameswaran
- *Higher Education and Inclusive Development: The Indian Experience*  
**Jannet Farida Jacob**, 2012 – ICSSR  
Supervisors: K. J. Joseph & U. S. Mishra
- *Corporate Social Responsibility: Determinants and Impacts, A Study of Manufacturing Firms in India*  
**Kavitha P.**, 2013  
Supervisors: Sunil Mani & M. Parameswaran
- *Gender, Education and Employment: Decision making Processes and Labour Markets outcomes of Higher Educated Women in Kerala*  
**Alice Sebastian**, 2005  
Supervisor: Praveena Kodoth

**FOUR** scholars have been **awarded PhD degree** by JNU during this period:

- *Understanding Internal Migration in India: Implications for Regional Imbalance and Gains from Migration.*  
**Pinak Sarkar**, 2012 – UGC – RGNF  
Supervisors: S. Irudaya Rajan & U. S. Mishra

In India, migration has assumed greater significance in recent times with the emerging dynamics of development and its ensuing implications. The rise in the inter-state mobility in India could very well be reasoned at two levels. At the macro level, the existing regional imbalance results in people moving from economically underdeveloped regions to economically better-off regions, to improve their well-being. At the micro-level, this could entirely be due to the gains associated with migration for individual migrants at the destination and the migrant households at the origin. It is observed from census 2001 and NSSO 2007-08 data that in terms of overall migration, the major negative-net migration states are generally the poorer states such as Uttar Pradesh and Bihar. On the other hand, the major positive-net migration states are primarily the high-income states such as Maharashtra, Delhi etc.

On this count, the present study analyses twin aspects of migration in India. Firstly, to examine the possible association between migration and the development dynamics of the state, and to evaluate mobility in terms of quality adjustment to quantum migration. Secondly, to comprehend the role of socio-economic characteristics such as age, education etc. and duration in shaping the returns to migration both at the destination and origin.

The analysis suggests that at the macro level the 'Push-Pull' framework remains relevant in explaining migration in India, which is empirically verified by adopting odds-ratio analysis for two reason specific migrant groups, i.e., employment and education led migration. Also, it is observed that when quantum migration is adjusted with qualities such as education, employment, age, etc., each destination states do not attract similar kind of migrants, i.e. the richer states with better employment opportunity are the ones which attract better human capital.

At the destination, it is observed that internal migration in India serves as an important livelihood strategy. The empirical result suggests that migration to urban destination brings a positive transition in the usual principal activity status (UPS) of migrants. The transition in UPS is measured in terms of the per cent change in the UPS of the migrants between two situations, i.e., activity status before and after migration. It is found that for both male and female migrants, the likelihood of getting employed especially in regular salaried/wage occupation increases as a post-migration UPS. The logistic regression model results affirm that the variable such as age, education, distance, origin and past-experience offers a positive impetus for getting employed in regular salaried/wage occupation. It is also found that migrants achieve positive economic transition or upward economic mobility in the wealth quintile structure when compared to the non-migrants.

At the same time, despite such gains being universal, they are not at all proportional across each characteristic groups. The differences are primarily due to the varying characteristic and the level of endowments among migrants. Such an exposition is facilitated by assessment of relative advantage/disadvantage using Relative Disadvantage Index (RDI) exhibiting the differential gain in economic transition. The advantaged groups being identified as urban origin, general category and educated as against the disadvantaged being from rural origin, ST&SC and Illiterates. The study also observes that duration of migration adds to gains from migration in terms of getting employed in the occupations which ensure regular income for migrants who particularly migrated in search of employment. A pair-wise analysis for duration cohorts' using the RDI reveals that the migrants in the longer duration cohort are at an advantage in getting employed compared to those in the short duration cohort.

As regards to the implications for the origin, it is observed that the poorer states like Uttar Pradesh and Bihar have the highest dependence on domestic remittance. Using Probit model, it is observed that in the rural areas, along with the household characteristics, variables such as worker-hectare ratio which is used as a proxy for surplus labour influences migration and receipt of remittances. Another important observation is that the flow of remittances across sectors and across economic groups have considerably improved the economic well-being of remittance-receiving households. This is evident as the consumption expenditure of the households receiving domestic remittances is found to be significantly higher when compared to the non-remittance receiving households across most of the Indian states. Additionally, the Average Budget Share (ABS) for important items such as education and health care is also higher for the households which receive domestic remittances. Using the Propensity Score Matching (PSM) technique to solve the problem of non-randomness and selectivity bias in choosing remittance-

receiving household, it is observed that remittances have increased the share of consumption on education, institutional health, total health, and consumer durable among households which receive domestic remittances. This helps to assume that domestic migration in India is not only a livelihood strategy to overcome poverty but also plays a significant role in strengthening the human capital formation through investment in education and health care. Here, an attempt is also made to analyze the utilization pattern of the domestic remittance using the Multinomial Logistic regression model. The results indicate that the choice of remittance utilization varies given the socio-economic and human-capital endowment of the migrant households where utilization of domestic remittance on education, health, debt repayment, saving/investment, etc. are seen as gains from migration.

Overall this study contributes to the existing literature in terms of reading quantum of internal migration with adjustment of quality characteristics that go beyond the usual assessment of migration defined in four streams such as rural to urban, rural to rural, urban to urban and urban to rural. The other important contribution is in terms of describing the gains from migration both at the destination and origin, where at the destination gains are viewed in terms of improving occupation status and economic transition given migrant characteristics. At the origin, the same is manifested in economic well-being of households shaped by the pattern of utilization of domestic remittance.

- *Explaining Differential Health Outcomes across the Indian States: An Enquiry from a Health System Perspective*  
**Nutan Shashi Tigga**, 2012 – UGC – RGNF  
 Supervisors: U. S. Mishra & S. Irudaya Rajan

Health outcomes in India have fared marginally when read in the context of the rapid economic growth experienced in recent times. Better levels of health outcomes across states in India continue to cluster in the Southern states when compared with the Northern states. Disaggregating further, the levels are disturbing in the High focus group states. Literature asserts the role of political, social, economic and demographic factors in shaping the differential levels of health outcomes. However, the role of health system and its efficient functioning is largely ignored in explaining differentials in health outcomes. Owing to the distinct histories which influence the trajectory of health system development across states, it becomes imperative to explore the performance of health systems in determining the health outcomes. A health system comprises of a whole host of components whose mutually responsive role guarantees its efficient functioning and consequentially desirable outcomes. Hence, to understand the factors that hinder the attainment of health-related goals, an evaluation of the performance of the health system is imperative.

In this regard, the present thesis attempts to evaluate the performance of the health system across states in India to explore the factors responsible for poor health outcomes. The World Health Organizations (WHO), Six Building Blocks Framework describes the role of six blocks, which is essential for the functioning of the health system. Here

exploration of one of the blocks, i.e. human resource for health, is analyzed to understand its association with the inequality in health outcomes.

The study extensively uses the third round of District Level Household Survey (DLHS) and Health Information of India report to address four objectives of the study. The thesis begins by offering an evolution of the different health policies adopted based on recommendations by various committees and their limitation in realizing the targets. Further, considering the health system determinants and other contextual factors, the thesis uses logistic regression technique to analyze the determinants of two specific health outcomes- institutional deliveries and child deaths. The human resource for health block is considered as a critical component for the functioning of any health system in the sense that any shortfall in this component results in failure to achieve health-related goals. Three measures of inequality are employed to indicate the shortage in this component in terms of different cadre of workers across states. Finally, the thesis addresses the ultimate objective of measuring the performance of the health system by assessing one goal of the health system. Improving the health of the population is considered as the most critical goal, which is analyzed using two techniques of measuring efficiency- Data envelopment analysis and Stochastic frontier analysis.

The policies needed to improve the health status of the population focused on a variety of issues. The improvements in the levels of health outcomes are not in keeping with the interventions adopted. Despite a steady growth in the health worker density, the public health system faces severe shortage and unequal distribution of health workers. The health workers which form an essential part of the WHO health system framework has been largely ignored in explaining differential health outcomes. Both institutional deliveries and child survivorship have a bearing with the functioning of the health system. In particular, institutional deliveries is significantly influenced by the health system performance. On the contrary, child deaths depended more on the maternal characteristics. Though socioeconomic and demographic factors contribute towards improving the health outcomes, the impact of health systems cannot be refuted. On decomposing, the inequality levels for the two inputs, it was observed that 'between inequality' was higher across states rather than 'within inequality.' Finally, it was observed that the performance of the health system was disrupted due to the inefficient utilization of health resources. The results of Data Envelopment Analysis (DEA) indicated the under-utilization of resources to achieve the corresponding level of health outcomes. The Stochastic Frontier Analysis, on the other hand, ascertains the presence of inefficiency due to other explanatory factors interrupting the performance of the health system.

In a nutshell, the thesis has attributed the differential levels of health outcomes to the performance of health systems. Hence, it emphasizes the fact that the strengthening of health systems is mandatory to realize improved health outcomes. Health system's response is not exclusive to the health system per se but the contextual factors as well which are equally important. Therefore, an efficient health system alongside positive contextual factors can obtain the required dividend in the health outcomes in ultimate terms.

- *Internal Migration and Labour Markets in India.*  
**Mohd. Imran Khan**, 2011  
Supervisors: S. Irudaya Rajan & Vinoj Abraham

Internal Labour migration has, historically, played a pivotal role in the transformation of the economies enabling efficient allocation of labour to more productive opportunities across sectors, and regions. Labour migration is considered as one of the important means to improve worker productivity and wages and increase their families' welfare. Despite the long-run benefits of migration for both source and host regions, migrants, frequently, encounter hostility upon entering the host regions.

Natives often express fear that migrants take away their jobs, increase unemployment and depress wages, and these claims are not often empirically grounded. Consequently, different policies have been framed to restrict migration, especially to urban areas. In this context, the main objectives of this thesis are: first, to document the size and magnitude of internal labour migration in India; Second, to analyze the labour market outcomes of migrants and non-migrants in a comparative perspective and finally to empirically examine the impact of labour migration flows on the labour markets.

Using the NSS household surveys in the last three decades, this study first documents the size and magnitude of labour migration by redefining labour migration in India. Migration shows an increasing trend, but the increase is due to female labour migration, particularly in rural areas, and male migration is consistently declining.

Further, labour migrants in India are, relatively, high skilled, earning higher wages, in regular jobs, than the non-migrant workers. However, this is not the same across all migrants, as migrants belonging to disadvantageous categories and female migrants, do not, equally, reap the benefits of migration. To understand the factors that determine the higher labour market outcomes of migrants, with respect to non-migrant workers, the study uses decomposition analysis. The analysis reveals that migrants earn higher wages because they have better productivity characteristics in labour markets than non-migrants. The study further empirically investigates the impact of migration on the wage and employment of non-migrant workers at destination labour markets.

Using a robust empirical methodology, applying instrument variable to correct the endogeneity of migration, the study finds that inflow of migrants does not affect the wages of non-migrant workers but has a small negative employment effect, especially, among low skilled workers. Similarly, when workers are segregated by formal and informal employment, it shows that the informal sector is unaffected by the inflow of migrant labour but has some negative employment effect on the formal sector. This lack of effect is explained by the choice of occupations among migrant and non-migrant workers where migrants choose occupations which non-migrants are unwilling to take up.

- *Institutions, Innovations and Inclusive Development: A Study of Select Plantation Crops in India.*

**Namrata Thapa**, 2011

Supervisor: K. J. Joseph

Historically, unlike general agriculture, plantation sector has had an elaborate institutional mechanism for its development. However, despite having more or less similar institutional arrangements, there exists intercrop variation in their performance. Taking the case of two plantation crops - Tea and Natural Rubber (NR), the study focusses on understanding their differential performance and its bearing on inclusive development outcomes. Drawing from innovation system literature, the study hypothesizes that the difference in crops performance regardless of the indicators considered, (production, productivity, competitiveness, or welfare of the actors whichever way we define) could be attributed to the difference in the system of innovation governing them. The study attempts to go beyond the existing 'black box' approach of measuring inputs and outputs. Rather the focus is on the exploring of the underlying innovation processes for creating an innovative and inclusive agricultural system. The focus on the process involved is based on the presumption that with an inclusive process in place, the outcomes are most likely to be inclusive. Innovation is viewed as an interactive learning process involving the participation of different actors in an evolutionary manner wherein institutions (including rules, norms and policy regimes) play a central role.

The objectives of the study are, i) to trace the evolution of the system of innovation governing tea and natural rubber, ii) to understand the nature of interactive learning focusing on the research institutes and the growers (in the generation and dissemination of knowledge) iii) to identify the forms of exclusion faced by small growers in the interactive process with formal institutional arrangements (in the dissemination of knowledge) and iv) To examine the factors influencing exclusion of small growers and analyze the factors that determines grower's interaction with formal and informal institutional arrangements. The study is based on secondary data sources including respective commodity boards and research institutes along with primary survey data from Assam (for tea) and Kerala (for NR).

The system of innovation in plantation crops was characterized as comprising of three subsystems – production, demand and knowledge, and the institutional context governing the behaviour of different actors in it. Tracing the evolution of the sub-systems over three different institutional context of colonial, pre-reform and post-reform regimes, the findings were as follows. Over the years, both tea and NR was observed to have experienced phases of coevolution followed by lack of coevolution of the three sub-systems. In tea, catering to the demand for the world market, production subsystem (large estates and producers' associations) supported by the knowledge subsystem (multiple research institutes) coevolved leading to steady growth during the colonial regime and period since independence till the 1980s. In the open competition era, the institutional structures such as Tea Board, multiple research institutes, producers' associations seemed unable to facilitate interaction between the subsystems indicating an inability to coevolve

and operate in a systemic manner. Despite having a head start in the setting up of organized research and establishment of other research centres to cater to region-specific needs, among others, the tea sector was facing the issue of declining productivity and production in comparison to major tea producing countries in the world, instability in prices, declining market share, inferior quality tea and lower value addition, outdated processing/manufacturing technologies, inability to address the issues of small growers related to low productivity and provision of timely developmental measures of the Tea Board.

In NR, as a result of systematic use of scientific knowledge facilitated by the Rubber Research Institute of India (RRII) and the Rubber Board, production and productivity increased under the protected trading regime. It was complemented by domestic price exceeding the international price that was supported by tariff and non-tariff barriers. This ensured prosperity for the small NR growers and met the growing demand from the domestic tyre and non-tyre manufacturers. However, with open competition, knowledge and production subsystem seemed unable to coevolve and operate in a systemic manner with the changing needs of the demand subsystem. This was particularly evident during the crisis situation resulting from sharp fall in prices of NR after 2011. The Rubber Board, RRII and Rubber Producers Societies (RPSs) were unable to adapt themselves to the new challenges. There were instances of increasing share of old age trees, inadequate supply of quality planting material, high instability in prices, ineffectiveness in full coverage of small growers in the associated schemes; Kerala, the main producer of NR remaining as a mere supplier of raw material to tyre manufacturing units outside the state; defunct RPSs, emergence of private players as suppliers of package of services to the growers, tappers scarcity, existence of weak forward linkages on account of inability of the institutional structure to support non-tyre manufacturing units and lack of adequate funds.

Considering the knowledge subsystem, we then examined the nature of interactive learning between the research institutes and the growers focusing on the relative role of these actors along with the R&D effort and the resultant research outcomes. The institutional structure in NR mainly consisted of public research organization (RRII) operating under the Rubber Board. While in tea, there were multiple research organizations, the oldest and the most important one being Tocklai Tea Research Institute (TTRI), a private research institute run by the large growers (estates). A close interaction between scientists in TTRI and large tea growers was observed as the research agenda was primarily dictated by the latter. The grower driven nature of interaction appeared to have led to increasing focus on short-term issues compared to long term sustained development. Despite coming up with different clones overtime, a clone that evolved in 1949 still dominated the sector. No significant increase in productivity and limited research on tea processing was observed. There was a decline in the industry's interaction with the research system. With the declining participation of the estates, public funding from Tea Board emerged as the major source of financial support. Yet, the Board's own role in shaping the research agenda in tune with the long term development of the industry seemed limited. This was manifested in the inability to address the needs of the small tea growers resulting in their exclusion from the system. The absence of a steady

funding for research and a consequent fall in manpower availability had undermined the ability to undertake research on a sustained basis.

On the other hand, in the case of NR, though the small growers' had relatively little influence on the conduct of research as compared to tea, they were able to articulate their demands through the RPSs. The public-funded RRII was not only providing advisory services on NR but also on other income-generating activities. The performance of NR with respect to productivity increase as well as its contribution to the livelihood of growers could be attributed to R&D along with efficient extension support and appropriate policy interventions. This was promoted by farmers-scientists interface complemented by an adequate supply of government funding. However, this interactive learning and steady financial support evident during the 20<sup>th</sup> century seemed to have reversed, particularly from 2009-10 onwards. RRII was constrained to broaden its research agenda beyond increasing production and productivity towards processing and manufacturing related issues. RPSs too seemed to be suffering from the issue of sustaining itself.

To explore the issue of exclusion in the interactive learning process, using primary survey data, forms of exclusion faced by the small growers in their access to formal institutional arrangements was examined. Despite the importance of formal institutional arrangements for small tea growers, there were in-built barriers to their interaction. Focusing on those who are excluded, which formed the majority, growers were facing active exclusion and instrumental exclusion with respect to the registration process with the Tea Board and getting access to their schemes. The meager number of growers who were included too were facing illusive inclusion, mainly owing to lack of awareness of the schemes. Witnessing such a case of illusive inclusion, those who were excluded were further disincentivized to interact with the formal sources. Thus different forms of exclusion are observed to be mutually reinforcing each other. For those who were included, their interaction with the formal sources were found to be ensured through friends/acquaintances including bought leaf factories and officials having close links with the institutes concerned indicating importance of these informal actors for the growers irrespective of whether they were excluded or included.

For NR it was observed that, unlike tea growers who could be broadly divided into excluded and included, the rubber growers consist of included, excluded and excluded by choice. In contrast to tea, registration of small growers with the Rubber Board was not exclusionary. Barriers to interaction with the Rubber Board was witnessed with regard to the criteria related to the cropping system that was required to be fulfilled to avail those schemes. However, it was found that Rubber Board had accordingly changed the criteria overtime to prevent the growers from facing active exclusion. Regarding membership in RPSs, due to non-functional RPSs, the growers were facing illusive inclusion. Other instances were related to farm and farmer characteristics, which prevented them from actively participating in RPS.

The study further explored the demand side aspect of exclusion in the interactive learning process by understanding the factors influencing exclusion of growers and factors



determining the decision of the growers to interact with formal and informal arrangements. The first question was explored for NR only and not for tea since it was already observed that the tea growers in the study area were unable to access the formal arrangements mainly on account of its unavailability. The estimated results of logit model for NR showed that those who were excluded from access to formal arrangements were characterized by engagement in part-time NR cultivation, possessing smaller farm size, having lesser years of experience in NR cultivation, using older plant variety such as RR1105. It was observed that despite the inability of the growers to follow the recommendations of the Rubber Board in terms of adopting low-frequency tapping, the growers do access the formal source suggesting the flexibility offered by the Rubber Board in terms of interaction with the growers.

Regarding the decision to interact with varied arrangements, it was understood that the tea growers were mostly interacting with only informal source or both (formal and informal source) and none of them was accessing only formal source. While the NR growers interaction varied from only formal, only informal and both sources. This indicated multiple information sources available to the NR growers, unlike for tea growers. The results of the maximum likelihood estimates of the logit and multinomial logit models showed that in the interactive process of knowledge dissemination despite the existence of formal sources in tea, there seemed to be greater reliance on informal sources on account of unavailability of services from formal sources as well as due to certain farm and farmer characteristics. On the contrary, institutional interventions, which seemed to adjust as per the need of the NR growers, have resulted in greater interaction with formal source. Though the growers' interaction with informal source was also high, it was not due to lack of supply of services from the formal source rather on account of farm, farmer and crop-specific characteristics. This suggested the interplay of both demand and supply-side factors in tea while in case of NR, it was particularly the demand-side factors that influenced the exclusion of growers from access to formal sources and their interaction with informal sources. The study showed that the ability of the institutional structures to adapt to the changing conditions as well as the relative role of the actors in the interactive learning process that shapes the exclusion of the actors would be manifested in the performance of the crops. Thus policy attention needs to be directed towards innovation processes involved that would provide a better understanding of the institutional context, the relative role of the actors and the mutually reinforcing exclusionary process therein.

## **Current Studies**

1. *Challenges and Prospects of Tourism as a Development Option: The Experience of Kerala*  
**Nalini Netto**, (2001) – Re-admitted in January 2015 (Government of Kerala)  
 Supervisors: Amit Shovon Ray & K. N. Harilal
2. *State and Emigration: A Study of Indian Policy*  
**Akhil C. S.**, (2015) – UGC-JRF  
 Supervisors: S. Irudaya Rajan and K. N. Harilal

3. *Inequality, Pro-Poor Growth and Development: The Indian Experience*  
**Amartya Paul**, (2015) – ICSSR  
 Supervisors: N. Vijayamohanan Pillai & Srikanta Kundu
4. *Farm Households in India Acquisition and Use of Information*  
**Aritri Chakravarty**, (2015) – ICSSR  
 Supervisors: Srikanta Kundu & Manmohan Lal Agarwal
5. *Innovation in the Informal Sector: Evidence from Urban Manufacturing Enterprises in India*  
**K. Chandra Shekar**, (2015) – ICSSR  
 Supervisor: K. J. Joseph
6. *Innovation in India's Capital Goods Sector: An Innovation System Perspective*  
**George Paily**, (2015) – UGC-JRF  
 Supervisors: K. J. Joseph & Beena P.L
7. *Educational Outcome of the Tribal Children in Odisha*  
**Susama Hansdah**, (2015) – ICSSR  
 Supervisors: Chinnappan Gasper & U. S. Mishra
8. *Higher Education in Kerala: A Study of Access and Equity*  
**Akhila P.**, 2016- ICSSR  
 Supervisors: K. J. Joseph & K. N. Harilal
9. *Activity-Participation of Elderly in Kerala: Determinants and Contributions*  
**Arya U.R.**, 2016- UGC  
 Supervisor: S. Irudaya Rajan
10. *Cash versus In-kind Transfers: The Indian Experience*  
**Indrajeet Kumar**, 2016- UGC  
 Supervisors: U. S. Mishra & Hrushikesh Mallick
11. *Monetary Policy in India: A Study of its Evolution, Conduct and Transmission*  
**Irfan Ahmad Shah**, 2016- Moulana Azad National Fellowship  
 Supervisors: M. Parameswaran & Srikanta Kundu
12. *Interstate Labour Migration in India: A Comparative study of Gujarat and Kerala as Destination States*  
**Madhusudan Nag**, 2016- ICSSR Fellowship  
 Supervisor: S. Irudaya Rajan
13. *Grounded Globalisations and Shaping of the Local: A Political Ecology of Kerala's Midlands and Highlands*  
**Mijo P. Luke**, 2016- ICSSR  
 Supervisor: J. Devika

14. *Multiple Identities and Urban Spaces: A Study of Residential Segregation in Kerala*  
**Neeha Susan Jacob**, 2016- UGC Fellowship  
 Supervisor: U.S. Mishra
15. *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
16. *Industrial Agglomeration: A Study of the Indian Manufacturing Sector*  
**Smruti Ranjan Sahoo**, 2016- ICSSR Fellowship  
 Supervisors: M. Parameswaran & P. L. Beena
17. *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
18. *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
19. *The Process of Urbanisation and the Role of Industrial Location in India*  
**Vineesh T.B.**, 2016- GoK Fellowship  
 Supervisor: Vinoj Abraham
20. *Spatiality of Dalit Settlements in Kerala: Selected Case Studies*  
**Vipitha V.**, 2016- ICSSR Fellowship  
 Supervisor: J. Devika
21. *State, Adivasis and Political Economy of Industrialization: A Case Study of Sundargarh District*  
**John Kujur**, 2017- NFH Fellowship  
 Supervisors: Jayaseelan Raj & Ritika Jain
22. *Minimum Wage in India: Trends Impact and Issues*  
**Kashif Mansoor**, 2017- ICSSR Fellowship  
 Supervisors: Vinoj Abraham & P. L. Beena
23. *Energy Poverty in India*  
**Krishan**, 2017- UGC Fellowship  
 Supervisors: U. S. Mishra & Hrushikesh Mallick
24. *Social Exclusion: The Context of Health of the Aged in Tamil Nadu*  
**Maheshkumar T.**, 2017- ICSSR Fellowship  
 Supervisors: Irudaya Rajan & T.Abhilash

25. *Enterprises and Social Groups in India*  
**Rajesh I. D.** 2017- GoK Fellowship  
Supervisor: P. L. Beena
26. *Disability and Human Development*  
**Sachu R. Sunny**, 2017- UGC Fellowship  
Supervisor: U. S. Mishra
27. *Performance of the Fertilizer Industry in India*  
**Ajil M.**, 2018- UGC Fellowship  
Supervisors: Sunil Mani & M. Parameswaran
28. *Taxation and Firm's Behavior in India*  
**Amit Nandan**, 2018- UGC Fellowship  
Supervisor: Hrushikesh Mallick
29. *Caste Fragmentation, Horizontal Inequalities and Implications for Development: empirical Examination of Indian States*  
**Cyril Jos Nazhicheril**, 2018- UGC Fellowship  
Supervisor: U. S. Mishra
30. *Low Carbon Industries: A Study of Wind Energy and Solar Energy Industries*  
**Ladenla Lama**, 2018- NFST  
Supervisors: K. J. Joseph & Hrushikesh Mallik
31. *Public Private Partnerships in Indian Infrastructure Development: The Case of Road Sector*  
**Papaiah Koppula**, 2018- ICSSR Fellowship  
Supervisors: Vinoj Abraham & Ritika Jain
32. *Environmental Regulation and Innovation*  
**Parijata Pradhan**, 2018- UGC Fellowship  
Supervisors: K. J. Joseph & Hrushikesh Mallik
33. *Growth and Structure of India's Telecom Services Industry: Digital Divide and Economic Implications*  
**Rajkumar Byahut**, 2018- UGC Fellowship  
Supervisor: Sunil Mani
34. *Impact of Uncertainty on a Real Economy: A Study of Indian Economy*  
**Sandeep Pandey**, 2018- ICSSR Fellowship  
Supervisors: M. Parameswaran & Srikanta Kundu
35. *Education, Skills and Employment: The Opportunities and Challenges of Higher Education in India*  
**Shilpa Krishnan**, 2018- UGC Fellowship  
Supervisor: U. S. Mishra

36. *Credit availability and the Performance of Micro, Small and Medium Enterprises in India*

**Vishyarani K.**, 2018- ICSSR Fellowship

Supervisor: Hrushikesh Mallick

**Re-Registered for Submission**

- *MNCs in India: Analysis of its Market Shares, Exports and Technology Behaviours*

**Anurag Anand**, 2014 – ICSSR

Supervisor: Sunil Mani

**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**

*Conduct of Monetary Policy in India*

**Irfan Ahmad Shah**, (2016) – MANF

Supervisors: M. Parameswaran & Srikanta Kundu

Name of institute visited: Ghent University, Belgium (06.11.2018 to 31.01.2019)

*Economic and Civic Integration of Migrants Household in Urban India*

**Madhusudan Nag** (2016) – ICSSR

Supervisors: S. Irudaya Rajan

Name of institute visited: University of Sussex, U.K. (08.01.2019 to 28.03.2019)

*Work Participation in India: Analysis at the household level*

**Shraddha Jain**, (2016) – MANF

Supervisors: Praveena Kodoth

Name of institute visited: Institute of Social Studies, Erasmus University, Rotterdam (07.01.2019 to 30.03.2018)

*Dispossession, Labour Process and Labour Agency in Indian Coal Mines: A Labour Geography Perspective*

**Suravee Nayak**, (2016) – UGC-RGNF

Supervisors: Vinoj Abraham & K. N. Harilal

Name of institute visited: School of Global Studies, University of Sussex, U.K.(01.01.2018 to 31.03.2018)

*Related Variety, Unrelated Variety and Regional Growth: A Study of Indian District*

**Vineesh T. B.**, (2016) – Govt. of Kerala

Supervisor: Vinoj Abraham

Name of institute visited: University of Utrecht, Utrecht, Netherlands, (08.01.2018 to 01.03.2018)

## **(b) INTEGRATED MPhil/PhD 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. 459 students from the 41 batches till 2016–18 have been awarded the MPhil Degree. The dissertation details of the 41st batch (2016 admission), are listed at the end of this section.

Eleven students of the 2017 batch will submit their dissertations by June 28, 2019.

The 44th batch of the Programme (2018–20) commenced on August 01, 2018.

### **2018 MPhil Admission**

- 210 candidates attended written examination out of 254 applications
- 35 candidates were short-listed for interview from the 210 applications; 23 appeared for interview.
- 12 were offered admission (Six General, Three OBC NCL, Three SC).
- 12 joined the Programme. 5 from Kerala, 2 from West Bengal, 2 from Jammu & Kashmir and one each from, Jharkhand, Uttar Pradesh & Odisha.

## **DISSERTATIONS of MPhil Programme 2016-18**

*Understanding the Regional Income and Human Development Disparities across Kerala Districts*

**Ajil M.**

Supervisor: M. Parameswaran

*Fiscal Reforms and Economic Performance of the Indian States*

**Amit Nandan**

Supervisor: Hrushikesh Mallick

*Caste, Class and Production of Space: A Case Study of Vasant Kunj*

**Ayushya Kaul**

Supervisor: Vinoj Abraham

*The Economic Determinants of Civil Conflict in Asian Countries*

**Cyril Jos Nazhicheril**

Supervisor: M. Parameswaran

*Impact of Sanitary and Phyto Sanitary measures on Exports and Employment: A Study of Indian Tea Industry*

**Ladenla Lama**

Supervisor: Sunandan Ghosh

*Land Acquisition, Marginalisation and Dispossession: Case of Amaravati City*

**Papaiah Koppula**

Supervisors: Vinoj Abraham & Ritika Jain

*Clean Development Mechanism under Kyoto Protocol: Evidence from India*

**Parijata Pradhan**

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

*Technology Transfer in Indian Industry: An Examination of Technology Import Policy, Economic Cost and its Relationship with In House R & D Investment.*

**Rajkumar Byahut**

Supervisor: Sunil Mani

*Role of Institutions in Explaining the Industrial Performance Across the Indian States*

**Sandeep Pandey**

Supervisor: Srikanta Kundu

*Financing and Cost of Graduation in Nursing Education in Kerala*

**Shilpa Krishnan**

Supervisor: Chinnappan Gasper

*Performance of Unorganized Enterprises in Kerala: A Comparison to the National Level*

**Vidyarani K.**

Supervisor: P. L. Beena & K. J. Joseph

### **(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).

### **2018 MA Admission**

For Students from India

- 803 Applications were received. All the 803 applicants were found eligible for appearing the Entrance Examination.
- Out of the 803 candidates, 27 opted Hyderabad, 143 opted Kolkata, 79 opted Kozhikode,
- 364 opted New Delhi, 37 opted Pune and 153 opted Thiruvananthapuram as their centre for Entrance Test.
- Entrance test was conducted from 10.00 am to 12.00 noon on Sunday, May 20, 2018. The test centres were Centre for Economic and Social Studies (CESS) in Hyderabad, Jadavpur University in Kolkata, 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
- 701 Candidates out of 803 applicants appeared for the entrance test.
- Selection was based only on the score of the entrance test.
- 20 joined the programme.

### **For Students from SAARC Countries**

Three applications were received for MA Applied Economics Programme. Two from Bhutan and one from Nepal. The Committee interviewed one candidate, Mr. Thinley Wangchuk for MA admission from SAARC countries. Mr. Thinley Wangchuk was interviewed over the telephone. 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 Mr. Thinley Wangchuk for admission and scholarship.

### **2017 Batch**

All the 21 students from 2017 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.

### **Certificate Course on**

‘History of Economic Thought’ by Dr. Alex M. Thomas, Azim Premji University.

‘Key Debates and Concerns in International Political Economy: Post-disciplinary Perspectives’ by Dr. Ravi Raman, Member, State Planning Board, Kerala.

*List of the projects topics is given below:*

**The Project topics of 21students are given below:**

#### **MA PROGRAMME- 2017 Batch**

##### **AE 208- Project**

<b>Sl No</b>	<b>Name</b>	<b>Tentative Project Title</b>	<b>Name of Mentor</b>
1	Anjali Rani	Educational Expenditure of Children: A Study of its Determinants in India	Dr. Parameswaran M.
2	Ankit Taparia	Rising Importance of India in the World Economy: A GVAR Analysis	Dr. Vijayamohanan Pillai
3	Ashley Jose	Evaluating a New Measure of Competition	Dr. Ritika Jain
4	Dheerendra Pratap Singh	Impact of MGNREGA on Income Inequality in Rural India	Dr. Vinoj Abraham
5	Jamyang Nurboo	Testing the Flypaper Effect across the Indian States: A Dynamic Panel Analysis	Dr. Hrushikesh Mallick
6	Karan Lalwani	Tariff Jumping with Technology Licensing versus Local Exports in a Differentiated Cournot Duopoly	Dr. Rajit Biswas
7	Mahindra Timsina	Public Debt and Economic Growth: The Case of Bhutan	Prof. K.J. Joseph
8	Neha V Betai	Intra-Industry Trade and Regional Integration in Developing Countries: A Case of Mercosur	Prof. Manmohan Lal Agarwal
9	Pratim Das	Risk and Return Spillover: Does liquidity of stock market play a role? Evidence from US, UK and India.	Dr. Srikanta Kundu

10	Rahul Ranjan	Quality of Employment In India	Dr. Vinoj Abraham
11	Rumi Azim	The Effect of India's Regional Trade agreements on Plantation sector in India	Dr. Sunandan Ghosh
12	Shivakumar Sunuwar	Trade Openness and export Competitiveness: An Analysis of Bhutan's Merchandise Exports	Prof. K.J. Joseph
13	Shubham Kumar Sehgal	Tax Buoyancy in India	Dr. Hrushikesh Mallick
14	Shubhangi Sharma	Does the Relation between Exchange Rate and Stock Market Changes with the Regimes? A Multi-Country Study	Dr. Srikanta Kundu
15	Sree Shiga P S	<i>Industrial Growth in the Post Reform Period: A Study of Indian States</i>	Dr. M. Parameswaran
16	Sudarshan Rana	Monetary Unions: The Determining Factors and Key outcomes	Dr Sunandan Ghosh
17	Tirunagari Likhitha	Women in Agriculture: Recent Trends and Patterns	Prof. Praveena Kodoth
18	Trishna Boruah	MDGs in Developing Countries	Prof. Manmohan Lal Agarwal
19	Tshering Wangchuk	Elementary Education in India: A Comparative Study of Government and Private Schools using an Input Indicator Index.	Prof. U.S. Mishra
20	R. S Vaidyanathan	Rethinking Wage Gap in a Dynamic Model of North-South Trade	Dr. Rajit Biswas
21	Yashwanth Reddy C.	Role of Social Networks in adoption decisions	Dr. Ritika Jain

**Certificate courses at the Centre  
(Open only to registered students of CDS)**

**July 2018 to May 2019**

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	MA 1 <sup>st</sup> Year
3	History of Economic Thought	Dr. Alex M. Thomas, Azim Premji University	MA 1 <sup>st</sup> Year, MA 2 <sup>nd</sup> Year, MPhil 1 <sup>st</sup> Year, MPhil 2 <sup>nd</sup> Year and PhD
4	Key Debates and Concerns in International Political Economy: Post-disciplinary perspectives	Dr. Ravi Raman, Member, Planning Board, Kerala	MA 1 <sup>st</sup> Year, MA 2 <sup>nd</sup> Year, MPhil 1 <sup>st</sup> Year, MPhil 2 <sup>nd</sup> Year and PhD
5	R. Package	Dr. M. Parameswaran	MPhil 1 <sup>st</sup> Year and MA 2 <sup>nd</sup> Year
6	Anthropology of Development	Dr. Jayaseelan Raj	MA 1 <sup>st</sup> Year, MA 2 <sup>nd</sup> Year, MPhil 1 <sup>st</sup> Year, MPhil 2 <sup>nd</sup>

**Statement for the MA, MPhil & PhD Programmes during the period 2018-19**

**(2018 April - 2019 March)**

Year	Course	Number of students Applied	Number of students appeared Entrance Examination	Number of students admitted	Number of students awarded
2018-19	MA	803	701	20	21
	MPhil	254	210	12	12
	PhD	-	-	10	5
	Total	1057	911	42	38

**(d) SHORT-TERM TRAINING PROGRAMMES**

**A short-term Training on ‘State and Civil Society in Development’  
(Norwegian Training Programme)**

4 September – 11 September, 2018  
Co-ordinator: Vinoj Abraham

A short-term teaching and field course on ‘State and Civil Society in Development,’ for students of the Department of International Environment and Development Studies (Noragric) of the Norwegian University of Life Sciences (NO-NMBU) was organised between September 4-11, 2018. The course consisted of classroom lectures, group discussions and field visits. Thematic lectures were conducted by CDS faculty, faculty from other institutions, distinguished practitioners and activists. Lectures were delivered on wide-ranging issues that included livelihood security, social movements migration, health, gender and ecology among others. The students were taken on visits, on related themes, to nearby field sites.

**Pathways of Social Research: Methodology Training (ICSSR Sponsored Capacity Building for Researchers in Social Sciences)**

11- 16 March, 2019  
Co-ordinators: Jayaseelan Raj and Abhilash T

The Centre organised a week-long capacity building programme for doctoral candidates of SC/ST and other marginalised groups between 11<sup>th</sup> and 16th March 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, 40 students were selected for the training from universities across the country. This year’s programme has mainly focused on academic writing and field survey methods. The programme has provided students with a concise overview of different forms of academic writing such as doctoral dissertations, peer-reviewed articles and monographs. The workshop has also focused on

training students with developing research questions/objectives, collection, and presentation of data, research ethics, literature review and dissemination of research findings. The six-day programme consisted of lectures by academics both within and outside CDS. The invited lecturers include Dr Sumeet Mhaskar (O.P. Jindal University), Dr Bhawani Buswala (Oxford University, UK) and Mr Bikram Sharma (Contributions to Indian Sociology/Institute of Economic Growth).

### **13<sup>th</sup> Migration Training Programme on “Methods and Approaches in Research on Migration Issues”**

September 17-21, 2018

Co-ordinators : S Irudaya Rajan & Udaya S. Mishra

The Centre for Development Studies conducted the 13<sup>th</sup> Annual Short-term Training Programme to educate and familiarize young researchers on the Kerala Migration Surveys and enable them to do research with the data collected from 8 rounds of the survey (1998, 2003, 2007, 2008, 2011, 2013, 2016 and 2018). A Seminar was conducted for the first two days, 17 and 18 September, 2018. Several papers were presented based on Kerala Migration Surveys. From 19<sup>th</sup> to 21<sup>st</sup> 2018, researchers were disseminated with questionnaires and reports of the various migration surveys. On 19<sup>th</sup> 2018, Ms. Anu Ebrahim explained the use of KMS database. Dr. Biplab Dhak elucidated the Gujarat Migration Survey. Professor Ashwini Kumar Nanda expounded Punjab Migration Survey. In the afternoon, Ms. Pooja Batra explained her area of research using Kerala Migration Survey 2011. Dr. Sunitha lead a class on how to conduct large scale migration surveys, sampling procedures done in various surveys and how to utilize the KMS database. Next session was carried out by Dr. Krishnakumar, explaining tasks given to researchers to do the analysis and presentation based on different Kerala Migration Survey databases that can be downloaded from the CDS website, after which the researchers were grouped into five teams and was given tasks; including objectives and hints to capture the data from which part of the database. The CDS project team helped them to publicize the data. The researchers presented the results of each of the tasks on the next day which was chaired by Professor U.S. Mishra, after which Professor Mishra distributed the certificates.

### **Design and Evaluation of Innovation Policy (DEIP)**

February 4-8, 2019

Co-ordinators: Anthony Arundel (UNU-MERIT) & Sunil Mani (CDS)

The Design and Evaluation of Innovation Policy (DEIP) programme was conducted at the Centre during February 4-8, 2019. The programme was organised in collaboration with the United Nations University-MERIT, Maastricht in the Netherlands. It was organised through twelve lectures spread over five days. Classroom lectures were supplemented with three field visits to better illustrate the topics that were done. The following broad themes were covered:

- Relevance of National System of Innovation Framework when technology is globalizing
- Measuring innovation using new indicators
- Role of state in promoting radical and incremental innovations
- Ecosystem for promoting startups
- New technologies and employment
- Innovation capability in new and emerging technologies

The three field visits to industrial areas in Trivandrum included:

- Case Study of HLL's R&D Centre which has benefitted from state intervention
- The Startup Mission of Kerala
- Blockchain technology- Case of Experion Technologies in Technopark
- 

About 40 participants from across the country, but primarily from Kerala attended the course. Participants included those from all institutions supporting technological change, besides Doctoral and M.Phil research scholars plus Master's students specialising in the 'Economics of Technology and Innovation'.

### **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 an intensive week-long training on specific basic courses.

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 during March 18<sup>th</sup> to April 12<sup>th</sup> 2019. This year 19 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 the 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 four 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

**Dr. Priya Menon**, Associate Professor at Department of English, Troy University has been granted research affiliation at the Centre for Development Studies for her research work on 'The Absent Workers of Arabia: A Study of Gulf Emigrants in Postcolonial Literature from Kerala'. Dr. Priya Menon's academic activities while with the CDS will be guided by Dr. Praveena Kodoth. The proposed period of affiliation is for a period of six months starting from 1<sup>st</sup> January, 2018 to 30<sup>th</sup> June, 2018.

**Mr. Tyler Andrew Blackman**, Research Scholar, University of Victoria, Canada has been granted research affiliation at the Centre for Development Studies for his research work on 'Exploring the Discourse of Growth in Kerala, India'. Mr. Tayler's academic activities while with the CDS will be guided by Dr. J. Devika. The proposed period of affiliation is for a period of one year starting from the date of reporting to the Centre. (Yet to join).

**Ms. Melinda Barnard**, Andrew Mellow Foundation Fellow, Centre for Indian Studies in Africa, Wits University, South Africa has been granted research affiliation at the Centre for Development Studies for her research work on 'Green Capitalism'. Ms. Melinda Barnard's work while with CDS will be guided by Dr. J. Devika. The proposed period of affiliation is for a period of one year from 24<sup>th</sup> August, 2017 to 23<sup>rd</sup> August, 2018.

**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. Charle's work while with CDS will be guided by Dr. 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 Dr. 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.

**Dr. Shoba Arun**, Senior Lecturer at Manchester Metropolitan University, Manchester has been granted research affiliation at the Centre for Development Studies for her research work on 'Global Girls: Embodiment and Gendered Experiences of Girls'. Dr.

Shoba's work while with CDS will be guided by Dr. J. Devika. The proposed period of affiliation is for a period starting from 1<sup>st</sup> August, 2018 to 31<sup>st</sup> December, 2018.

**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 Dr. J. Devika. The proposed period of affiliation is for a period starting from 2<sup>nd</sup> September 2018 to April 2019.

## 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 'Dimensions of India's Intellectual Property Right System, How Many Patents are commercially Exploited in India?' Some of the ongoing studies include a study on 'The State and the Maintenance of Agro Biodiversity in Kerala' in addition to the ongoing projects started last year, which include studies on, i. 'Diffusion of Industrial Robots and Manufacturing Employment, an International Comparative Analysis,' ii. 'The Diffusion of a Cashless Economy in India, its Trends and Challenges' and iii. 'Emerging Technology, State and National Innovation Capability: An International Comparative Analysis Based on Artificial Intelligence (AI) and Robotics and Autonomous Systems,' The new initiatives for the coming year are on 'The Growth and Emergence of Trade and Investment in Intangibles in India' and 'History Does Matter, India's Efforts at Developing a Domestic Mobile Phone Manufacturing Industry.'

During the year, the unit had several publications in the form of 3 journal article, one paper in the centre's *Commentary on India's Economy and Society Series* along with one article in the *Deccan Chronicle* and another in *The Mint*. In addition to this, 3 seminars were presented at the CDS, and 4 seminar papers including lectures were presented outside the CDS and 10 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 is the Chair Professor of the unit. During the year the following 2 books were published, What is Economic Development? A Comparative Performance of Indian States, published by Social Science Press, 2019 with Amit S Ray and M Parameswaran and the other titled 'Patterns of Structural Transformation and Agricultural Productivity Growth,' published by Gokhale Institute of Politics and Economic, 2018. An edited volume with Jing Wang and John Whalley, G 20 in two volumes is forthcoming with World Scientific, Singapore.



In addition to this, the unit brought out 6 chapters in books and 3 publications under the Commentary on India's Economy and Society Series. Three Discussion Papers were also published by the RIS (Research and Information Systems), New Delhi.

A two-day conference on 'Economic Theory and Policy' was also conducted at CDS on February 22&23, 2019. A total of 14 papers were presented, six by members of CDS and eight from other institutions.

The unit has also been involved in teaching courses for the MA students on macro open economy and trade and development. Also participated in the teaching of the courses on the Indian economy and Economic Development at the M.Phil level and extending guidance to two Ph.D students.

### **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 with an initial corpus of Rs.8 crore for a five year period beginning of the financial year 2004-05. 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 2018-19 in policy engagement, research, and archiving included:

1. A policy roundtable on the inclusion of the needs and voices of informal sector urban women workers in Kerala's Panchayati Raj.
2. New papers in the Lateral Studies on Kudumbashree series.
3. The presentation of research on ecological challenges and local government responses, the first in the proposed short-monograph series on this theme. The commissioning of new research in this theme for the series.
4. Concurrent assessment of the New People's Planning Campaign, of interventions in agriculture, by Dr K K Eswaran.
5. The presentation of research on gender budgeting practices in Kerala and case study of the Ayyankali Urban Employment Guarantee Scheme by Dr Meera Velayudhan.
6. Continuation of the digitization of the Panchayat Development Reports.
7. Digitization of Kudumbashree documents.

Besides the above, the unprecedented natural disaster that took Kerala unawares called for a response from the RULSG.

## **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. K J Joseph is Chair Professor of the Unit. Much of the research under programme used to be undertaken by scholars outside CDS as commissioned studies and capacity building training programmes were also being undertaken.

As per the decision of the Steering Committee meeting all the studies proposed were undertaken by the CDS faculty in close collaboration with the commodity board concerned.

Studies during the reporting year include:

- Setting the Prices Right? An Empirical Analysis of E-Auction in Cardamom.
- Constraints to Diffusion/adoption of Innovations in Natural Rubber: Study of Tapping Practices and Rain Guarding.
- The Harvest is Plentiful but the Harvesters are a few? An Exploration of the below Potential Production of Natural Rubber in Kerala.
- Diffusion/adoption of Innovations in Coffee: A Study of Chandragiri Variety.
- Post-harvest Issues in Spices: Study of Coriander and Cumin.

All the above studies are based on the primary data and the field survey in close collaboration with the commodity boards are being undertaken. In addition, a study on 'Characterizing the Household Consumption Demand for Coffee: An Exploration,' based mostly on secondary data is also being undertaken.

These studies were presented before the Steering Committee, wherein the Special Invitees included Dr Anup Wadhawan, Secretary, Department of Commerce, Shri Santosh Kumar Sarangi, Joint Secretary-Plantations, Department of Commerce; Shri M Saravanav, Director-Plantations, Department of Commerce.

## **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 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 crores, under the title ‘Research Programme on International Migration from Kerala (R-PIMK)

### **P.K. Gopalakrishnan Endowment Fund**

The late Dr P.K. Gopalakrishnan was a scholar, policy advisor and institution builder par excellence. He was one of the few outstanding personalities who played an important role in the establishment of many advanced institutions of research and learning in Kerala during 1970-80. As a Policy Advisor and Secretary to the Government during the Chief Ministership of the Late Shri. C. Achutha Menon, Dr Gopalakrishnan is credited with the formulation of a science and technology for the State. To perpetuate the memory of Dr Gopalakrishnan, his family instituted the endowment at the Centre. The income earned from the endowment is being used to organise public lectures and grant fellowships to the students. This year the Eighth P K Gopalakrishnan Memorial Lecture was held at the Centre. Prof. Rajmohan Gandhi, Professor, University of Illinois at Urbana-Champaign, USA delivered a lecture on “The Challenges of Intolerance, the Future of Indian Democracy, and South India’ Role: Some Reflections,’ on December 19, 2018.

### **B.G. Kumar Endowment Fund**

The Endowment was set up by the family of Dr B.G. Kumar, a young economist who worked with the Centre as Associate Fellow during 1990-93, passed away in early 1993 after a prolonged illness. The endowment was set up by the family to perpetuate his memory. The objective of the endowment is to organise special lectures and provide a grant to faculty for seed research. This year The Ninth B.G. Kumar Lecture on ‘Revisiting Myrdal’s Approach to Development in Asian Drama,’ was delivered by Professor Frances Stewart, Professor Emeritus of Development Economics, University of Oxford, UK at the Baker Auditorium, on October 3, 2018.

### **A.D. Neelakantan Endowment Fund**

A.D. Neelakantan was a student of the first batch of the M.Phil Programme during 1975-76. After his sudden demise in 1977, an endowment fund was instituted in his memory, with a modest contribution 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 Centre could not organise any activity under the endowment.

### **Joan Robinson Endowment Fund**

Prof. Joan Robinson spent a few months as a 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 Shri Karan Lalwani for (2017-19).

## VI

### SUPPORT SERVICES

#### (a) K.N. RAJ LIBRARY

During the year 2018-19, there was further strengthening of print and digital resources of K.N.Raj Library. The Library also launched a 'content alert broadcast' using the Whatsapp Messenger App.

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 1161 books, 111 eBooks and 16 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.

No of Books	1161
No of e-Books	111
No of CD-ROM / DVD	16
Journals / Periodicals (Print)	112
e-Journals Database	6 (3521 journals)
Statistical Database	7
Software & AMC support	Libsys
No of items bound and preserved	1025

The K.N. Raj Library subscribes to 100 Print Journals and 12 Newspapers. The library also received 56 print periodicals/journals as a gift. The subscription to Oxford Online – Social Science collection (79 journals), Wiley Online (24 journals), ProjectMUSE – Social Science collection (113 journals), Science Direct - Economics, Econometrics, and Finance (106 journals) were renewed for the year 2019. Access to the EconLit (599 journals) and JSTOR (2600 journals)

was provided by the ICSSR/NASSDOC consortia. These six journal databases jointly are providing access to 3521 e-journals. They are available to the CDS community through IP access. More than 1025 volumes (books and journals) were bound and preserved during the reporting year.

During the reporting period, library membership has increased. A total of 760 new members joined the library, out of which 54 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 1507 posts and has received 113760 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>, (d) Google Plus <https://plus.google.com/117599930063574349978/about>, (e) ScoopIt [www.scoop.it/t/infoknrl](http://www.scoop.it/t/infoknrl) and (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 just send a message [NAME] Add KNRL Alerts to +91 9188451892 from your Telegram Messenger App. As part of enhancing the information services, a Content Alert Broadcast Channel on WhatsApp Messenger (<https://www.whatsapp.com/>) was launched on April 25, 2018. For subscribing to this information service just send a message "[NAME] Add to KNRL Alerts" to +91 9188451892 from your WhatsApp Messenger.

The Library organised book review sessions during this year also. Two book reviews were conducted during the reporting period. Both the reviews were well attended and lively.

Eight book displays were conducted during the reporting period. The works of Prof. Thirthankar Roy available in the library were kept for display from April 9 to 13, 2018. The works of Dr. B. R. Ambedkar were on display from April 16 to 23, 2018. The works of Dr. P.G.K. Panikar and Dr. T. N. Krishnan from April 30 to May 4, 2018. The publications of Dr. Deepak Nayyar were kept for display from August 2 to 4, 2018 and that of Prof. Gurpreet Mahajan from August 6 to 10, 2018. Prof. Frances Stewart's publications were on display from October 1 to 5, 2018. The publications of Dr. William D. Nordhaus available in the library were kept for display from October 9 to 12, 2018. The publications of Prof. T.N. Srinivasan available in the library were kept for display November 12 to 16, 2018. All the displays were kept in the Circulation Area of the Library. They were useful for the CDS community and library users.

The 2018 batch MA, MPhil and PhD scholars were given an orientation about the library. This included a tour of the library, a powerpoint 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.

The Master of Library and Information Science (MLISc) students from Kannur University visited the library on August 3, 2018. 43 students and 3 teachers of Kendriya Vidyalaya, SAP Peroorkada visited the library on November 19, 2018, as part of their Reader's Club activity.

A group of 30 students each from Government College, Kodenchery, Nehru Arts & Science College, Kanhangad, Krishna Menon Memorial Govt. Women's College, Kannur, Govt. Arts & Science College, Kondotty, Government Arts & Science College, Thavanoor, Nirmalagiri College, Kannur, Christ College, Irinjalakuda, and NSS College, Manjeri visited the library on 18<sup>th</sup>, 22<sup>th</sup>, 23<sup>th</sup>, 25<sup>th</sup>, 29<sup>th</sup>, 30<sup>th</sup> January, 1<sup>st</sup>, 6<sup>th</sup> February and 6<sup>th</sup> March respectively as part of the 'Walk with the Scholar' scheme of Government of Kerala. All of the above were given a tour of the library to familiarize the library collection and services.

External events by staff: 1) V. Sriram, Chief Librarian was the external expert on the Selection Committee for the interview of the Librarian of Sree Chithira Thirunal Institute of Medical Sciences and Technology, Thiruvananthapuram held on June 2, 2018. 2) V. Sriram, Chief Librarian has been nominated as an Expert Member of the IMG Library Advisory Committee by the Director of Institute of Management in Government, Thiruvananthapuram in August 2018. 3) V. Sriram, Chief Librarian was nominated as a member of the DCE Level State Library Development Monitoring Committee for modernizing the Government Arts & Science Colleges under the Directorate of Collegiate Education, Kerala in September 2018. 4) V. Sriram, Chief Librarian nominated as one of the editors of the online publication "Ala: A Kerala Studies Blog (<http://ala.keralascholars.org/>)". 5) V. Sriram, Chief Librarian nominated as a member of the Board of Studies (Library Science) of Rajagiri College of Social Science (Autonomous), Kochi in February 2019 for a period of two years.

V. Sriram delivered a web-talk on the topic "Using the K.N.Raj Library for Kerala Studies" in Kerala Scholars e-Group Webtalk Series on April 21, 2018. He delivered a lecture on the topic "Plagiarism detection and Reference management software" at the Training Programme on Excellence in Medical Education organised at the Institute of Management in Government, Thiruvananthapuram on May 15, 2018. Sriram also delivered a lecture on the topic "Internet-based information sources" at the Workshop of Research Methodology organised at M.G. University, Kottayam on December 11, 2018. He also delivered a lecture on the topic "Reference Management using Zotero" at the Workshop on Qualitative Research Writing and Publishing, Department of Sociology, University of Kerala. India on February 14, 2019.

## **(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 the 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 on the campus.
- Thirty-five 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.

**Activities during 2018-19**

Fifteen Desktop PCs and twenty monitors have been purchased for various departments. LED smart TVs were installed in classrooms and other halls instead of projectors to provide better quality audio/video facilities.

**(c) STAFF WELFARE FUND**

The Staff Welfare Fund provides a limited grant to last grade employees for the marriage of dependent children and financial relief for losses due to natural calamities. The Fund also provides loan to employees for the 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, eleven applications for a loan were approved.

Two children of employees were awarded merit certificates and cash awards for their scholastic performance in public examinations. None of the non-academic staff members retired during 2018-19, hence there is no expenditure towards grant (Rs.15,000/-) on retirement during the year. 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.130.84 lakh as on 31st March, 2019.

## VII

### NEW INITIATIVES DURING 2018-19

#### (A) ACADEMIC

##### (a) Seminar on Indian Economy and Society: Lateral Expositions

A three-day seminar on ‘Indian Economy and Society: Lateral Expositions’ was held at the CDS during 12th -14th December, 2018.

The seminar was divided into ten sessions based on the ten research themes of the Centre, with each session having two invited paper presentations. Apart from the paper presentations, two panel discussions, one on ‘Formalizing the Indian Economy’ and another on ‘Institutions and Development’ were held. Each panel consisted of three invited experts. A total of twenty-six invited speakers from outside including CDS faculty and students and research scholars and guest from other academic institutions participated in the seminar. CDS is planning to bring out an edited book on Indian Economy based on the proceedings of the seminar.

**Programme Schedule of the seminar is given below**

Session Timing	Session/ Panel Discussion Details
<b>12<sup>th</sup> December, 2018</b>	
9:00 – 10:30 am	Theme: Macroeconomic Performance <b>Prof. R. Nagaraj</b> “Ten year after the Global Financial Crisis: Has India Learnt its Lessons?” <b>Prof. Arjun Jayadev</b> “Debt, Inflation and Policy Targets” Chair: <b>Prof. Sudip Chaudhuri</b>
10:30 – 11:00 am	<b>Tea Break</b>
11:00 am – 12:30 pm	Theme: Labour, Employment and Social Security <b>Dr. Radhicka Kapoor</b> “Explaining the Contractualisation of India’s Workforce” <b>Prof. Madheswaran S</b> “Social Exclusion and Caste Discrimination in Public and Private Sector in India: A Decomposition Analysis” Chair: <b>Dr. Vinoj Abraham</b>
12:30 – 1:30 pm	<b>Lunch</b>
1:30 – 3:00 pm	Theme: Gender and Development <b>Prof. Padmini Swaminathan</b> “Reclaiming a Transformative Agenda for Gender and Development: Revisiting "Who Cooked Adam Smith's Dinner?"” <b>Dr. V. Geetha</b> “Planning for Utopia: A Reading of the Report titled, Women's Role in the Planned Economy, 1947.” Chair: <b>Prof. Praveena Kodoth</b>

3:00 – 3:30 pm	<i>Tea Break</i>
3:30 – 5:00 pm	<p>Panel Discussion: <b>Formalizing the Indian Economy</b></p> <p>Panelists: <b>Dr. C. Rammanohar Reddy, Mr. Sumit Dutt Majumder and Mr. Sasanka Sekhar Maiti</b></p> <p>Chair: <b>Prof. K. P. Kannan</b></p>
<b>13th December, 2018</b>	
9:00 – 10:30 am	<p>Theme: Migration and Development</p> <p><b>Prof. R B Bhagat</b> “Urban Transition, Migration and Public Policies in India”</p> <p><b>Dr. Nabeela Ahmed</b> “Labour Migrant Access to Social Protection in the City”</p> <p>Chair: <b>Dr. M. Parameswaran</b></p>
10:30 – 11:00 am	<i>Tea Break</i>
11:00 am – 12:30 pm	<p>Theme: Industry and Trade</p> <p><b>Prof. Saikat Sinha Roy</b> “Reponses to Trade Reforms: Some Explorations on India’s Trade Performance”</p> <p><b>Prof. Surajit Mazumdar</b> “Stunted Industrialization and the Current Crisis of Indian Industry”</p> <p>Chair: <b>Dr. P. L. Beena</b></p>
12:30 – 1:30 pm	<i>Lunch</i>
1:30 – 3:00 pm	<p>Theme: Decentralization and Governance</p> <p><b>Dr. Swagato Sarkar</b> “Governing Primitive Accumulation”</p> <p><b>Dr. S. M. Vijayanand</b> “The Status of Panchayati Raj in India – A Critical Assessment”</p> <p>Chair: <b>Prof. J. Devika</b></p>
3:00 – 3:30 pm	<i>Tea Break</i>
3:30 – 4:30 pm	<p>Theme: Innovation and Technology</p> <p><b>Prof. Rakesh Basant</b> “Innovation Driven Startups in India - Emerging Patterns and Challenges”</p> <p>Chair: <b>Prof. Sunil Mani</b></p>
4:30 – 6:00 pm	<p>Panel Discussion: <b>Institutions and Development</b></p> <p>Panelists: <b>Prof. Sudipto Mundle, Prof. Mritunjoy Mohanty and Prof. Dhanmanjiri Sathe</b></p> <p>Chair: <b>Prof. R. Nagaraj</b></p>

<b>14th December, 2018</b>	
9:30 – 10:30 am	Theme: Innovation and Technology  <b>Prof. Ambuj Sagar</b> “Energy Technology Innovation in India”  Chair: <b>Prof. Sunil Mani</b>
10:30 – 11:00 am	<b><i>Tea Break</i></b>
11:00 am – 12:30 pm	Theme: Human Development, Health and Education  <b>Dr. William Joe</b> “Health Insurance Coverage in India: Insights for National Health Protection Scheme”  <b>Dr. Ajay K Verma</b> “Learning Outcome in Public School at Elementary Level”  Chair: <b>Prof. Udaya S Mishra</b>
12:30 – 1:30 pm	<b><i>Lunch</i></b>
1:30 – 3:00 pm	Theme: Plantation Crops  <b>Prof. P K Viswanathan</b> “Institutional Redundancy and Inclusive Development: The case of India’s Plantations Sector with focus on Sustainable Development Goals”  <b>Dr. S Mohanakumar</b> “Destruction of Petty Commodity Producers under Neo-Liberal Trade Regime in India: The Case of Natural Rubber Producing Farmers”  Chair: <b>Prof. K. J. Joseph</b>
3:00 – 3:30 pm	<b><i>Tea Break</i></b>
3:30 – 5:00 pm	Theme: Work, Workplace and the Labouring Poor  <b>Dr. Ishita Mehrotra</b> “Political Economy of Rural Labour: A Review” <b>Dr. Sumeet Mhaskar</b> “Mapping the Urban Industrial Labour in India”  Chair: <b>Dr. Jayaseelan Raj</b>

### **(b) Collaborative Venture**

CDS is in the process of entering into a collaboration with the Department of Economics, Government College, Nedumangad, Trivandrum.

The college is affiliated to the University of Kerala and is NAAC accredited with a B grade. It offers undergraduate degree programmes in Economics, History, Malayalam, Commerce, Mathematics and Physics and Computer Application and Masters in

Economics, Commerce, History and Malayalam. The Department of Economics has three permanent lecturers and one guest lecturer and admits every year 55 students for the undergraduate degree and 18 for the postgraduate degree programme.

CDS has decided to mentor the Department of Economics of the college to enable the faculty and students of the department to further improve their knowledge and understanding of economic theory and its application to selected economic problems of the country and indeed the region. The project is being dovetailed into the K N Raj Training and Fellowship programme at the Centre, which aims at improving the quality of teaching of Economics, especially at the undergraduate level in Kerala state. Towards this, a delegation from the Centre consisting of Professor Sunil Mani (Director), Professor Praveena Kodoth, Dr Sunandan Ghosh, and Dr Ritika Jain visited the college on 26<sup>th</sup> of February 2019 and held discussions with the principal of the College, Dr I Mini, and two of the three members of the Department of Economics, Ms.Sibi Naduvilakkandi, the Head of the Department, and Mr. Nandu C J.

The discussions that ensued resulted in the following:

- CDS faculty will help the College faculty in improving the teaching of micro, and macroeconomics at the undergraduate level, Econometrics and Research Methods at the postgraduate level and also some help in designing the project reports that the Master's students will have to do at the second year of their programme;
- The three faculty members of the department will be given free membership of the K N Raj Library at CDS for three years, to begin with from April 1, 2019. They could also attend the annual one-month Teaching Innovations Programme in Economics which CDS is restarting beginning with the programme from March 18 2019;
- Both the faculty and students will be on the CDS mailing list for all academic events at the Centre such as the seminars, special lectures and the annual "India's Economy and Society" series of seminars.
- CDS faculty will also occasionally visit the college for delivering lectures/seminars on mutually agreed topics and at mutually agreed on timings; and
- CDS will help the college to strengthen its collection of textbooks in Economics and also in strengthening the computing facility at the department. The mentorship is to commence from April 1, 2019 and will be on for three years from that date.

### **(c) Contribution to Public Policy Making**

CDS was approached by the 15<sup>th</sup> Finance Commission to do a study on the fiscal situation in Kerala during 2001-01 through 2008-09. This specially commissioned study

was undertaken by Mr R Mohan, Visiting Fellow, CDS. This has since been completed and submitted to the Finance Commission.

The objective of the study is to look at the past trends and fiscal indicators of Kerala from 2000-01 to 2018-19. Based on this, the study attempts to lay down a road map for a fiscal consolidation path for Kerala during 2019-20 to 2024-25. The data sources used are from Finance Accounts published by Comptroller and Auditor General (C& AG), Budget documents of the State government and various issues of 'State Finances: A Study of the Budgets' published by Reserve Bank of India. Based on the data from these sources, estimations have been made as per the methodology explained in the study. The highlights of the findings are briefly discussed in the following paragraphs.

The study analyses the major fiscal indicators of Kerala for the period 2000-01 to 2018-19. Kerala, along with all other States, faced enlarged fiscal and revenue deficits during the latter half of the 1990s. The fiscal correction path embarked through expenditure contraction in the early 2000s was not successful in Kerala. But the State moved toward fiscal consolidation during 2016-17 to 2010-11 by robust growth of one tax revenue. The high own tax revenue growth continued till 2012-13, before sharply decelerating since 2013-14. The growth rate is presently hovering around at less than 10 percent per annum as against 18-19 percent during the earlier period. The revenue expenditure has been downwardly flexible, and revenue and fiscal deficits have been rising since 2013-14. In the latest budget (2018-19), the government has announced renewed efforts at fiscal consolidation by rationalising expenditure and aiming at high own tax revenue growth rate. But the initial response from Goods and Services Tax (GST) has not been encouraging. The high proportion of revenue deficit to fiscal deficit at more than 60 percent is impeding capital expenditure.

The study finds that though the targets for revenue and fiscal deficits as per the Fiscal Responsibility and Budget Management (FRBM) Act and the Medium Term Fiscal Policy (MTFP) Statement have not been achieved, major fiscal indicators show a movement towards consolidation. The interest – revenue receipts ratio has come down to 234 as per 2018-19 BE from 324 during 2004-05. The cost of borrowing has also declined and the share of low-cost market borrowings has gone up from 17.49 percent during 2000-01 to 57.25 percent during 2018-19 BE. Statistically, the revenue receipts and revenue expenditure is co integrated at their logarithmic first differences, and the debt is stationary at logarithmic fort difference. The gap between GSDP and nominal interest rate growth has been positive, though narrowing down.

The study visualises a path for revenue consolidation. This would require own tax revenue growth at 15 percent per annum and revenue expenditure growth returning to its long-run median growth rate of 13.88 percent. The overall revenue receipts would have to grow at 17 -17.5 percent and this would require growth in central devolution. As per this path, revenue deficit should almost come to nil, and entire borrowed fund should be utilised for capital expenditure. The consequence of the consolidation in revenue account would be reduction and stabilisation of Borrowings and Liabilities to GSDP ratio.

The Borrowings and Liabilities to GSDP ratio are proposed to be brought down to around 28 percent by 2024-25 from the present 30.5 percent, assuming an annual growth rate of 11.5 percent in GSDP. If the growth rate of GSDP rises, the Borrowings and Liabilities to GSDP ratio can further come down. A sharper reduction would adversely affect the capital expenditure of the State.

The study also analyses the trends in subsidies and performance of public sector undertakings and suggests limiting explicit and implicit subsidies to 1-1.25 percent of GSDP by 2024-25.

#### **(d) Contribution to Rebuilding Kerala**

The Centre's contribution to building up of knowledge related to the megafloods of August 2018 falls into three broad categories:

First, CDS contributed to the *Post Disaster Needs Assessment Report* (PDNA) prepared by the United Nations and submitted to the Government of Kerala towards the end of October 2018.

Second, CDS faculty and students did primary surveys of three different types of business communities, which suffered very heavily during the floods. These are the cases of the Chendamangalam handloom, Aranmula mirror making, the Munnar tea plantation and tourism communities.

Third, CDS elicited comments from a wide range of social scientists from across the country on their ideas and reflections for rebuilding the state.

We now elaborate on each of these three in some detail.

*Contribution to the UN's PDNA Report:* The megafloods of 2018 have impacted the economy and society of Kerala in many different ways. The trail of destruction left by the floods has resulted in considerable damage to different aspects of the economy. We focused on three separate but related dimensions. These are the impact of the floods on the growth performance of the state measured in terms of the Gross State Domestic Product (GSDP) growth rate, both in nominal and real terms, during 2018/19, and the fiscal situation of the state in terms of revenue receipts and expenditures. The note also presented some facts on the remittances to the state during 2018/19, which were impacted largely by the continuing depreciation of the Indian Rupee vis-à-vis other leading currencies, primarily the US Dollar. We deal with each of these three dimensions seriatim.

*Contributing to the Rebuild Efforts of the State Government:*

At the very outset, itself a donation of Rs. 1 million to the Chief Minister's Distress Relief Fund (CMDRF) was handed over to Dr. T.M.Thomas Isaac, Hon'ble Minister for

Finance, Government of Kerala on the 17th of September 2018 during a function held at CDS.

As part of contributing to the rebuild efforts of the state government, CDS adopted the Kuppapuram Government High School which was badly affected in the floods. Kuppapuram Government High School located in the Kainakary Grama Panchayat in Kuttanadu, Alleppey District was one of the worst affected panchayats in the state in the aftermath of the megafloods.

A six-member team led by the Prof Sunil Mani, Director, visited the school in October 2018 to do a first-hand survey of needs assessment. Discussions were held with the School's headmaster, President of its PTA and President of the Kainakary Grama Panchayat. The team consulted the school's master plan prepared a year ago and also a detailed physical survey of the infrastructure. These consultations helped the team to narrow down its help to the school in terms of: (i) Setting up of a smart classroom or two depending on the funds available in two rooms which are built on stilts and therefore not prone to destruction by flooding; and (ii) Setting up of a well-endowed library for the school.

CDS then enlisted the support of the leading computer software services company in the country, namely TCS, to provide the school with the equipment for two smart classrooms besides four desktop computers that were damaged. Mr K M Chandrasekhar, Chairman, CDS, facilitated this important link with TCS who readily agreed to provide this as part of its Corporate Social Responsibility. The library needs were to be provided by CDS, which procured about 450 books in Malayalam and in English, which any high school library should be having, besides a shelf in which to keep the books.

The computer software giant, TCS along with CDS, successfully implemented the school project of providing a state-of-the-art library and computing facilities and smart classroom to the Kuppapuram Government High School. The facility was jointly inaugurated at the school on Monday, the 21st of January by Mr. Dinesh Thampi, Vice President and Head, Kerala Delivery Centre, TCS and Professor Sunil Mani, Director, CDS in the presence of students and teachers of the entire school and President of the Parent-Teacher Association. Thus, the second component of its three-part commitment of providing, cash, help in kind and knowledge to the *Rebuild Kerala* initiative was completed successfully.

### **Primary Surveys of Three Different Types of Business Communities**

#### *(i) Chendamangalam Handloom Industry*

A study "Business Distress in Kerala: A Case Study of Chendamanagalam Handloom Industry" by Sunil Mani, Beena PL and Kavitha P was also conducted in the post-flood scenario.



Chendamangalam is a village of Paravur Taluk in the Ernakulam district of Kerala located about 30km away from Kochi and 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 had destroyed most of their looms, yarns and raw material and they are now trying very hard to resurrect it.

The purpose of the study is to understand the functioning of the units run by the handloom industry located in this cluster, which was badly hit by the flood. This is extremely important as these units were providing a livelihood to many households. The specific research questions of the study are the following: What are the socio-economic background 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 labour? How is this industry mobilizing capital, labour and raw materials to run the units and who were their customers? What is the financial implication of flood on the production and livelihood of stakeholders/workers of this industry and state response? What is the future of this industry and to check whether this industry can be rejuvenated through any modern innovative strategies?

An attempt is being made in this study to answer some of these questions based on primary and secondary sources. The study is divided into five sections, including an introduction and conclusion. The first section tries to understand the historical root of this industry at Chendamangalam cluster while analysing the nature, production and organisation structure. An effort is being made in the second section to highlight the significance of Chendamangalam society as compared to other handloom units in Kerala. The role of the state and the growth of the handloom industry before the flood are discussed in section 3. The scenario of Chendamangalam society after the flood, its financial loss and role of the state for the revival is being discussed in detail in section 4. The last section sums up the major findings and policy suggestions. Primary data is collected by visiting Chendamangalam weaving units based on a structured questionnaire.

#### *(ii) Aranmula Mirror Industry*

A Field Survey conducted from October 27-29, 2018 to Assess “The Impact of Floods on The Aranmula Mirror Industry” was conducted by the MPhil students of the CDS.

*The objectives of the study were to:*

- To assess the impact of the floods on the levels of production, sales, profits, and employment in these industries.
- Look into the composition of the industry, which includes the scale of production, the peak demand seasons, the demand faced, the number of workers employed, the selling procedures and the like.
- To try to compare these features of the industry in a pre and post-flood scenario.

The study aims at not only building a reliable case study but to extend the findings of this specific case to a general idea. This study also aims to address the cause of handicraft industries affected by natural disasters, and how in future other handicraft industries may take ideas from this particular case to undertake steps beforehand in order to shield themselves from the ravages of a natural disaster, and how they might recover after such devastation.

### *Main Finding*

Several workshops deluged in the 10 feet deep waters remain closed. The workshops and homes remained inundated in the murky waters for 7-10 days.

The disaster came amidst the peak season, Onam. The units had stepped up the production in the wake of meeting rising demands of tourists who visit the place to watch the famous boat-race. As such, several finished mirrors were partially or completely damaged. The floods have affected the people associated with *Kannadi* in myriad ways. Several unit owners revealed that they had to borrow money from the money lenders because of non-availability of easy credit from the banks and now they are unable to repay the amount.

### *Estimation of Financial Loss*

The guestimates of loss revealed by the owners of the units range from 50,000 to 20 lakh. The actual figures could easily be much larger or smaller than that.

Among several things which were damaged by the flood, the craftsmen were mostly worried about the raw materials. The tools and machines became unuseful.

The huge inventories of finished goods were also affected.

The floods have affected the people associated with *Kannadi* in myriad ways. Several unit owners revealed that they had to borrow money from the money lenders because there is no availability of easy credit from the banks and now they are unable to repay the amount.

The ornamental boxes used for packaging these mirrors made of wood were damaged irreparably. The floods also affected the employment opportunities of the people. The units were closed for several days, and hence the craftsmen were out of work for some time.

### *Recovery*

The post-flood initiative from the government included providing a working capital loan at a lower interest rate, which is yet to be initiated, along with distribution of toolkits worth 10,000, and the only assistance from the government's part was Rs. 10000, given to every flood-affected person.

### *(iii) Munnar Tea Plantation and Tourism Communities*

The tea belts in the Idukki district, located in the Western Ghats, were also severely affected by the megaflood of August 2018. The tea belts of Munnar and Peermade suffered from loss of life, land and the plantation-tourism economy in the region. It was a serious setback to the tea economy, which was already ailing from an economic crisis for the last two and half decades. It is important to note that the tea belts were key locations in the megaflood of 1924 as well.

Though only .89 percent of land in the Idukki district is identified as flood-prone area, the number of houses damaged in the district was third highest in Kerala following Palakkad and Ernakulam. The Kerala State Disaster Management Authority (KSDMA) estimated that 56 crore rupees was required to rebuild the fully destroyed houses in the Idukki district. According to the official statistics collected by the local administration of Idukki District, 75 houses were severely damaged in the Kannan Devan Hills. Two hundred forty-four buildings were partially damaged and around 60 buildings were fully destroyed. Landslide during the flood had taken 11 lives and washed away eight buildings and the surrounding land in the Kannan Devan Hills. The production of tea in the Hills was almost reduced by 50 percent in the second half of 2019 due to heavy flooding. Since the flood had occurred during Onam holidays and the rare *Neelakurinji* blooming season, the tourism industry in Munnar had a serious setback with an estimated loss of more than 500 crores.

While these stories of economic loss were given due attention, the way social hierarchy and power relations had constituted as well as reconstituted by the flood was somewhat missing from the scholarly discussion on the flood. For example, It is important to understand who becomes the most vulnerable in the context of a disaster and what are the processes associated with such social vulnerabilities. In view of this, an anthropological research was carried out in the tea belts in Idukki with a focus on the socioeconomic implications of the flood. The study also focused on the post-flood recovery examining how the intervention of Kerala state and other institutions helped them to recover, or failed to do so. It also looks at how the tea plantation economy and land use pattern in the ecologically sensitive Munnar affect the survival possibilities of the most marginalised groups in the tea belt such as the tea workers and the tribal communities.

The difficulties encountered by the marginalised sections in the reconstruction of the socioeconomic life after the flood calls for a fundamental reform that addresses their socioeconomic alienation. In other words, a reconstruction effort is fruitful only when the social context in which the flood unravelled is taken into account. This is because the flood has created a fragile setting for the people to engage with. In the Munnar hills, the flood has exacerbated the vulnerabilities of the marginalised communities as the questions of citizenship, legality and ethnic identity is evoked. A preliminary analysis of ethnographic data collected suggests that socioeconomic autonomy of the marginalised communities is central to survive any disaster, including the flood.

## **Ideas and Reflections on Rebuild Kerala**

In the wake of the unprecedented destruction wreaked by monsoon flooding in Kerala, CDS as an institution committed to contributing to Kerala's policy-building and public discussion launched a series of policy reflections.

These are by important researchers, and activists who have considerable experience of working on and in Kerala. The series is assembled by the Research Unit on Local Self-Government at CDS and edited by J Devika. This series hopes to add to the public debate both general reflections on the rebuilding process, as well as more focused thoughts on a wide variety of topics, many of which have gained relevance in the post-deluge moment.

*The following topics have been addressed.*

1. Financing the Rebuild – Suggestions for Meeting the Challenges Ahead: (R Mohan)
2. Floods – a nimitham to Building Back Better? : (John Kurien)
3. Who will control the next-generation technology that will rebuild Kerala?: (Anita Gurumurthy)
4. Women and Gender Policy after the Deluge: Some Reflections: (J. Devika)  
Revive People's Power in the Rebuilding : (M P Parameswaran)
5. On a Collective and Equitable Green Recovery – Challenging Modes of Domination: (Shoba Arun and TG Arun)
6. The Six Lessons from the Mega floods of 2018 for Rebuild Kerala: (Sunil Mani)
7. Some Priorities for Rehabilitation in the Kuttanad Region: (AV Jose)
8. Reconstruction of Kerala-Drawing on Strength: (Srikumar Chattopadhyay)
9. Can /Should Art Wait for Better Times?: (C S Venkiteswaran)
10. Rehabilitation and Reconstruction: A Chance for a New Kerala Model?: (K K Eswaran and J Devika)
11. New Foundations for the Mind: Rebuilding Intelligence in Post-Disaster Kerala: (J. Devika)
12. Factoring Terrain Characteristics for Reconstruction of Kerala: (Mahamaya Chattopadhyay)
13. Everyday Risks, Precarious Livelihoods and the Politics of Disaster Management: (Max Martin, Filippo Osella and Roderick Stirrat)

## **Students Involvement and Contribution**

The floods that inundated Kerala in August and September were traumatic for most Keralites. Most Keralites had not seen any natural disaster of such massive scales in their lifetime. Desperate, though it seemed in its initial fury, soon Kerala was gripped by an unmatched sense of camaraderie and oneness of purpose. People from all walks of life, in large numbers, volunteered to save lives in distress.

Students of CDS rose to the occasion and contributed massively in all respects. As there was a lack of volunteers in the initial days of recovery, eight of us went to a base camp along with a major NGO based in Trivandrum on the 18th morning. As we realised that there was a disconnect between the main collection centres and the relief camps, we shifted to Chettikulangara (near Mavelikkara), which is close to most of the relief camps where people from Chenganoor were staying, on the 19th. Our plea to the CDS fraternity to mobilise funds and collect relief goods was met with a quick and generous response from the students, staff and alumni, who could gather a total of Rs.91716.

On the first day, we managed to distribute collected goods to various relief camps from the Chettikulangara panchayath hall through LSGs. But, as we started receiving many calls for the immediate delivery of goods, we changed our initial plan to deliver through LSGs and started delivering directly. So we availed of the available logistics with the help of two CDS students from the locality to distribute the material ourselves. We could distribute relief material in more than ten relief camps. Even though it was difficult to co-ordinate and transport the material to the needy, the constant support from the CDS community got us going. I would like to thank all the students, teaching and non-teaching staff and alumni for their valuable contributions to the cause. I hope we shall be able to continue to be involved in the rebuilding process in the coming months. We did not use any political/religious platforms during the distribution. (As reported by Akhil)

**Contribution of ANASWARA** (Association for Non-Academic Staff Welfare and Recreation Activities) decided to avoid Onam celebrations this year in view of the devastating floods. Anaswara members gathered to pray for the safety and well-being of all those facing hardships. ANASWARA joined hands in the relief activities by contributing 50 kg rice packets which were handed over to the collection centre at CDS.

### **Publications**

Mani Sunil. 2018. 'The Economic Implications of the Kerala Floods', *The Mint*, August 21 2018, <https://www.livemint.com/Politics/Zc1nGPsp4iNh01y4pLrhWM/The-economic-implications-of-the-Kerala-floods.html>

Mani Sunil. 2018. 'Rebuild Kerala: The Six Lessons', *The Deccan Herald*, September 21, 2018, <https://www.deccanchronicle.com/nation/current-affairs/210918/rebuild-kerala-the-six-lessons.html>

### **(e) Visiting Research Professors/Fellows**

The new category of scholars known as "Visiting Professors/ Fellows" initiated last year 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. Funding is from the Director's Research Fund.

Details for the year 2018-19 are given below:

### Visiting Professors/Fellows at the Centre 2018-19

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)
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)
<b>Category 1 B: Lecture &amp; Paper</b>				
6	Mr. R Mohan	Indian Revenue Service (Retd)	Public Finance	17.01.2018 (Two years)
7	Dr. Ravi Raman	Kerala State Planning Board	Political Economy	Two years- April 2020
8	Prof. Pulapre Balakrishnan	Ashoka University, Haryana IIM - Kozhikode	Applied Macroeconomics	Two years – April 2020
<b>Category 2: Fixed Term Appointment</b>				
9	Prof. Sudip Chaudhury	IIM - Kolkata	Macroeconomics/Industrial Economy of India	01.10.2018 (Two years)
<b>Category 3: Foreign scholar</b>				
10	Prof. Frances Stewart	Oxford University	Development Economics	30.09.2018 to 07.10.2020
11	Prof. Ravi Kanbur	Cornell University	Development Economics	21.10.2018 to 28.10.2020
12	Prof. Tirthankar Roy	London School of Economics and Political Science	Economics History	09.04.2018 (Two years)
13	Prof. Thankom Arun	University of Essex	Economics	01.08.2018 (Two years)
14	Prof. T V Paul	McGill University	Political Science/International Relations	01.01.2019 (Two years)

#### **(f) Certificate Courses and Non- certificate Courses**

Six new certificate courses have been initiated this year. For more details kindly refer to page

Non-certificate courses on specific themes like a course on Impact Evaluation and Game Theory was offered during the year.

#### **(g) 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.

#### **(h) Welfare**

This year the CDS introduced a tuition and hostel fee waiver for economically weak but meritorious students pursuing their MA Programme. A fund has also been instituted to provide financial support to meet abnormal health expenditures during the reporting year.

### **(B) SUPPORT SYSTEMS**

#### **Library Online Resources**

The K.N.Raj Library strengthened its digital resources and services. This year CDS started the procurement of eBooks from prominent commercial publishers. One hundred ten eBooks were purchased this year. They are available to the CDS community round the clock on the campus wifi through IP access. The K.N.Raj Library also launched a 'content alert broadcast' channel using the WhatsApp Messenger App (<https://www.whatsapp.com/>) during this reporting year. To subscribe to this service just send a message "[NAME] Add to KNRL Alerts" to +91 9188451892 from your WhatsApp Messenger App.

#### **Modernisation of the Computer Centre**

CDS campus is now 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.

Statistical software STATA 15, Eviews 9.5, SPSS 22 and Grammarly@ edu software which helps in writing with grammar checks have been provided to students and faculty for their education and research purposes.

Fifteen Desktop PCs and twenty monitors have been purchased for various departments. Six LED smart TVs have been installed in classrooms, committee rooms, and lecture halls replacing the old projectors, thereby providing the latest in audio/ video facilities.

## **Improvement in Recreation Facilities**

During the year 2018-2019, a large number of guests arrived at the Guest House for various official as well as personal purposes. Local visitors, along with guests from India and abroad totalling around 610, stayed at the guest house during the year. Foreign guests arrived mainly for participating in some major programs co-ordinated by CDS & other educational institutions like Kerala University, KCHR, NCESS & Kerala State Planning Board.

A large number of students and researchers use the guest house while attending seminars, conferences, workshops and training programmes conducted at CDS throughout the year. A large number of resource persons, participants and associated members stayed in the guest house for the programmes like ICSSR Training Programmes, RULSG, KMS, DEIP, Norwegian University Programmes etc. Groups of students quite often book rooms for some time to help them have easy access to the library & other facilities inside the campus. As in previous years, the Kerala State Planning Board officials always prefer our Guest House for their long & short term accommodation requirements. It is encouraging to see that other official programmes of the Government sent their guest to stay in the guest house.

So also for official programmes of the Centre like Committee of Direction and, Governing Body Meetings, the guests are staying in the guest house. Several academic and non-academic visitors selected CDS guest house for their stay in Trivandrum, including officials of the JNU. Ongoing online room booking has made it easier for booking and enquiring about the availability of rooms and facilities. Proper updates & telephonic confirmations are also providing as per the enquiry from guests. It is encouraging to note that this year, we have received very positive feedback from guests who have used the guest house. The rooms in the guest house are well equipped with electric kettles, tea/coffee making items, and televisions with national as well as international channels in all the rooms. Guest are provided with fresh linen daily and permanent mosquito netting in addition to mosquito repellants in all rooms.

Full-time internet facility, including Wi-Fi access, is also available. This year a newly installed water purifier in the common area provides safe and fresh drinking water for the guests. The reception area has been refurbished with chairs and a sofa with new cushions. Floor mats are laid in all the main areas. All electrical, plumbing and constructional maintenance is carried out regularly to ensure the smooth running of all systems thereby ensuring a comfortable stay for the guests.

The supervision of the guest house is carried out by Mr Shareef. H.S, Asst. Administrative Officer, with additional charge as Guest House Manager. He has been in charge of the guest house for the last four years, efficiently managing the administration and smooth running of the guest house. He is assisted by Mr Saibabu. S, Guest House Attendant, is in charge of looking after all room arrangements and services to ensure the smooth functioning and comfortable stay of all visitors. Also, Mr 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 official duties, Saibabu is also a keen photographer, environmentalist and wildlife enthusiast with several publications to his credit. Some recent publications are listed below:

*Agastyayanam* : An article about Agastyarkoodam Trekking Travel Experience published in ALA

<http://ala.keralascholars.org/issues/issue-7/agasthyayanam/>

*Ponmudi – Rithumarmarmarangaliloode* – An article published in Kerala Government Forest Department Official Magazine – “Aaranyam” (April 2019)

### **Indoor Badminton Court**

The newly constructed Indoor Badminton Court was inaugurated by Shri K.M. Chandrasekhar, Chairman CDS, on Wednesday, 6 June 2018. The Indoor Badminton Court, called IBC, is a long pending addition to the avenues for recreation within the campus. Shri Chandrasekhar inaugurated the IBC by cutting the ribbon and also by playing a few shots with the racket. The Chairman and the Director, Prof Sunil Mani, thanked the representative from COSTFORD for constructing the court so beautifully and within a short period.

### **Paving of footpaths**

The old brick paving has been replaced by interlocking cobbles in the pathways leading up to the clubhouse, men’s hostel and a corridor behind the reception area. The open floor/stage of the Kaldor amphitheatre was laid with anti-slip paving stones, channelling the rainwater to enable rainwater harvesting.

## VIII

### GOVERNANCE AND ORGANISATIONAL STRUCTURE (As on 31 March, 2019)

#### COMMITTEES

##### Committee of Direction

K.M. Chandrasekhar (Chairman)  
Ajay Dubey  
J.V. Meenakshi  
J. Jayathilak  
Virendra Kumar Malhotra  
U.S. Mishra  
Sunil Mani (Convenor)

##### Finance Committee

K.M. Chandrasekhar (Chairman)  
C. Rammanohar Reddy  
J. 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*)  
Pradipa K. Chaudhury (*JNU, New Delhi*)  
Subrata Guha (*JNU, New Delhi*)  
P.Kanagasabapathi (*Coimbatore*)  
Narendra Kumar Taneja, (*VC, Charan  
Singh University, Meeruti*)  
Praveena Kodoth (*CDS*)  
Vinoj Abraham (*CDS*)

M. Parameswaran (*CDS*)  
Rajit Biswas (*CDS*)  
Satish Chandra Garkoti (*Rector II, JNU  
New Delhi*)  
S. Suresh Kumar, CDS (*Convenor*)

##### Academic Programme Co-ordinators

*Integrated M.Phil/ PhD Programme:*  
Praveena Kodoth (Co-ordinator)  
Vinoj Abraham (Associate Co-ordinator)  
Sunandan Ghosh (Associate Co-  
ordinator)

*MA. Programme:*  
M Parameswaran (Co-ordinator)  
Rajit Biswas (Associate Co-ordinator)

##### Faculty Committee

Sunil Mani (Chairman)  
U.S. Mishra (Convenor)  
Manmohan Agarwal  
K.J. Joseph  
S. Irudaya Rajan  
K.N.Harilal (on deputation to Kerala  
State Planning Board)  
Praveena Kodoth  
J. Devika

### **Academic Committee**

Sunil Mani (Chairperson)  
Rajit Biswas (Convenor)  
All faculty (Members)  
Registrar (Member)  
Chief Librarian (Member)  
Administrative Officer (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**

M. Parameswaran (Chairperson)  
Sunandan Ghosh (Convenor)  
All Faculty (Members)

### **Library Committee**

J. Devika (Chairman)  
V. Sriram, (Chief Librarian)  
P.L. Beena  
Abhilash T  
S. Suresh Kumar (Registrar)  
Ansamma Joseph  
Shelja Bhatia (Student Representative)  
Vaidyanathan (Student Representative)

### **IT Committee**

Sunil Mani (Chairman)  
V. Sarath (Convenor, Ex-officio)  
Vinoj Abraham  
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  
Ritika Jain

### **Investment Committee**

Sunil Mani (Chairman)  
Praveena Kodoth (Finance Committee Member)  
S. Suresh Kumar (Registrar)  
S. Suresh (Convenor)  
Venukumar V (Accounts Officer cum Internal Auditor)

### **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. Seenath (Academic Staff)

H.S. Shareef (Convenor & Member,  
Administrative Staff A)  
Ansamma Joseph (Library Staff)  
Reeshma R.S. (Member, Administrative  
Staff B)  
G. Vijayan (Member, Administrative  
Staff C)

### **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)

### **Grievance Redressal Committee**

Manmohan Agarwal (Chairman)  
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)  
Sudarshan Rana,( MA II year  
representative)

## 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)

*Research Area:* Innovation and Development,  
India's Plantation Agriculture

**Irudaya Rajan S.**

Ph.D.in Demography  
(IIPS, Bombay)

*Research Area:* Migration and Ageing

**Udaya Shankar Mishra**

Ph.D in Population Studies  
(IIPS, Bombay)

*Research Area:* Population Policies and Programmes,  
Gender and Reproductive Health and Analytical &  
Measurement Issues in Health

**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, Development and Migration  
Identities and Institutions

**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; Translations and Translation Studies; Malayalam literature and Contemporary Politics

***Associate Professors***

**Vijayamohanan Pillai, N.**  
Ph.D in  
Economics -Econometrics  
(Madras University)

*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

**Vinoj Abraham**  
Ph.D in Economics  
(JNU)

*Research Area:* Labour Economics, Regional Development, Gender & Development, Economics of Technology and Innovation, Plantation Studies

**Parameswaran, M.**  
Ph.D in Economics  
(CDS/JNU)

*Research Area:* Economic Development and Macroeconomics

**Hrushikesh Mallick**  
Ph.D in Economics  
(University of Mysore)

*Research Area:* Applied Development Economics

***Assistant Professors***

**Chinnappan Gasper**  
Ph.D in Education  
Economics  
(Pune University)  
(Retired on 30.6.2018)

*Research Area:* Education

**Sunandan Ghosh**

Ph.D in Economics  
(Jadavpur University)

*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:* Empirical Industrial Organisation, Public Policy

**Rajit Biswas**

Ph.D in Quantitative Economics  
(Indian Statistical Institute)

*Research Area:* Political Economy, International Trade Industrial Organisations

**Abhilash Thadathil**

Ph.D in Political Science &  
International Studies  
(JNU)

*Research Area:* Social Exclusion, Political Economy

**Jayaseelan Raj**

Ph.D in Social Anthropology  
(University of Bergen, Norway)

*Research Area:* Anthropology of Development, Inequality & Poverty, Plantation Labour, Industrial Work and Social Life, Ethnographic Methods

**Chandril Bhattacharyya**

Ph. D. in Quantitative Economics  
(Indian Statistical Institute, Kolkata)

*Research Area:* Growth Theory

**Seenath P**

Ph.D in Agricultural Economics  
(Kerala Agricultural University)  
(Resigned on 12 March, 2019)

*Research Area:* Agricultural Economics

***RBI Chair Professor*****Manmohan Lal Agarwal**

Ph.D in Economics  
(Massachusetts Institute of  
Technology, USA)

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

### ***Honorary Associate Fellows***

Oommen M.A.	Former Professor and Head, Department of Economics, University of Calicut, Kerala
Damodaran A.D.	Former Director, Regional Research Laboratory, Thiruvananthapuram



### ***Honorary Visiting Professor***

**A.V. Jose**  
Ph.D in Economics  
(University of Kerala)

*Research Area:* Social and Labour Policies, Social Protection

### ***Visiting Research Fellow***

R. Mohan  
MPhil in Applied Economics

*Research Area:* Public Finance, Centre-State Relation with focus on Devolution of Resources & Kerala Public Finance, Trends in India's Economic Growth

James J. Nedumpara  
PhD (New York)

*Research Area:* International Trade Law

### ***Professor (Fixed-term appointment)***

Sudip Chaudhuri  
PhD (JNU)

*Research Area:* Pharmaceutical Industry, Economics of Patents, India's Industrialisation.

### **ADMINISTRATION**

S. Suresh Kumar  
Shareef H.S.  
Ajikumar A.R.  
K. Lekha

*Registrar*  
*Assistant Administrative Officer*  
*Administrative Assistant (designated as PS to Registrar)*  
*Receptionist cum Public Relations Assistant*

### ***Academic Programme Office***

T.S. Geetha Devi  
Raji R.S.  
Arun K.C.

*Assistant Administrative Officer*  
*Junior Administrative Assistant*  
*Junior Administrative Assistant*

### ***Faculty Support Services***

Emmanuel T.J.  
Satheesh S.S.

*Personal Assistant*  
*Junior Administrative Assistant*

### ***Guest House***

Shareef H.S.	<i>Assistant Administrative Officer</i> <i>(designated as Guest House Manager)</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> <i>(Promoted as SFO on December 2, 2018)</i>
Venukumar V	<i>Accounts Officer cum Internal Auditor</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>

### ***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</i>
G.Vijayan	<i>Attendant</i>

### ***Transport***

V.Surendran	<i>Driver Grade I</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</i>
G.P. Anitha	<i>Senior Assistant Librarian</i>
Ameer Ali	<i>Assistant Librarian</i>
S. Gopakumar	<i>Assistant Librarian</i>
Sivakumar P	<i>Junior Assistant Librarian</i>
Sumesh C.S.	<i>Attendant</i>

### **Internal Complaints Committee Report (2018-19)**

- a. Number of complaints of sexual harassment received in the year: No complaint was received by the committee but the Chairperson was asked by the Director to respond to an oral complaint by a faculty member that she had flouted the rules of the law against sexual harassment at the workplace by revealing that an advisory had been issued against him in an investigation of a complaint against him by the ICC.

The Chairperson had clarified based on Chapter 5, Section 16 as cited below that this was a false allegation:

Notwithstanding anything contained in the Right to Information Act, 2005, the contents of the complaint made under section 9, the identity and addresses of the aggrieved woman, respondent and witnesses, any information relating to conciliation and inquiry proceedings, recommendations of the Internal Committee or the Local Committee, as the case may be, and the action taken by the employer or the District Officer under the provisions of this Act shall not be *published, communicated or made known to the public, press and media* in any manner:

Provided that information may be disseminated regarding the justice secured to any victim of sexual harassment under this Act without disclosing the *name, address, identity or any other particulars calculated to lead to the identification of the woman and witnesses.*

- b. Number of complaints disposed off during the year: None
- 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.
- e. Nature of action taken by the employer: (See above a)

## RESEARCH TITLES

### (a) CULTURE AND DEVELOPMENT

#### *Completed Studies*

#### **1. Categorical Oppression in South Indian Tea Belt**

Jayaseelan Raj

Status: Completed.

## RESEARCH PROJECTS

#### *Ongoing Projects*

#### **2. Munnar Through Three Turns: Crisis, Strike and the Flood**

Jayaseelan Raj

*Sponsor:* Kerala and the World Economy Endowment, CDS.

Status: Ongoing.

### (b) DECENTRALISATION AND GOVERNANCE

#### *Completed Studies*

#### **3. Planning a 'slum free' city: Housing upgrade and the Reshaping of Urban Governance in Trivandrum, Kerala**

J. Devika, Glyn O Williams, Umesh O, N Jagajeevan

Status: Published in Environment and Planning C, June 2018,  
<https://doi.org/10.1177%2F2399654418784305>

#### **4. Enacting Participatory, Gender-Sensitive Slum Redevelopment? Urban Governance, Power and Participation in Trivandrum, Kerala**

J. Devika, Williams, G, Omanakuttan U, Aasen, B

Status: *Geoforum* 96 105-159: <https://authors.elsevier.com/a/1XZer3pILM3Oi>

#### **5. The Local as Industrial Heterotopia: Making Sense of the Denial of Environmental Destruction at Eloor**

J. Devika and N C Narayanan (IIT, Bombay)

Status: Completed.

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

Ritika Jain and Amit Nandan (Doctoral Scholar, CDS)

Status: Revised and resubmitted to *Energy Policy*.

### *Ongoing Studies*

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

Amit Nandan (Doctoral Scholar, CDS) and Hrushikesh Mallick

Status: Ongoing.

### **(c) GENDER AND DEVELOPMENT**

#### *Completed Studies*

#### **8. Kudumbashree and its Rivals: Reflections on Women's Citizenship, Social Connections and SHGs in Kerala**

J. Devika and Jyothi S. Nair (KNM Govt. College)

Status: Published as No. 3 - *Lateral Studies on the Kudumbashree*, RULSG.

#### **9. Locality Specific Norms and Wage Bargaining by Part time Domestic Workers in the National Capital Region**

Praveena Kodoth and Shraddha Jain (Doctoral Scholar)

Status: Chapter in N Neetha (ed.) *Working in other's Homes: The Specifics and Challenges of Paid Domestic Work*, New Delhi: Tulika.

#### **10. The Lure of Informality: Regulation and the Market for Domestic Work in the Middle East for Women from Kerala**

Praveena Kodoth

Status: Chapter in N Neetha (ed.) *Working in other's Homes: The Specifics and Challenges of Paid Domestic Work*, New Delhi: Tulika.

#### **11. Converging Gender Gap in Human Development? Valuing Progress in International Comparisons and Rankings**

Udaya Shankar Mishra, William Joe (IEC Delhi) and Mala Ramanathan (SCTIMS)

Status: Completed.

#### **12. Towards Conceptualization of a Household Educational Indicator**

Udaya Shankar Mishra and Upasak Das (University of Pennsylvania)

Status: Completed.

#### **13. Women's Participation in Domestic Activities. Leisure, Care Services, and Status Production**

Vinoj Abraham

Status: Completed.

## RESEARCH PROJECTS

### *Ongoing Projects*

#### **14. Righting Gender Wrongs: A Study of Law Enforcement Responses to Online Violence against Women.**

(Title of sub-project on Kerala: *Walking on Eggshells in Cyberspace: A Report on Gender justice, Law Enforcement, and Women's Struggles and Negotiations in Malayali Cyberspace.*)

J. Devika with Darshana S. Mini, Chithira Vijayakumar, Elizabeth Alexander, and Resmi PS.

*Sponsor:* In collaboration with IT for Change, Bangalore.

Status: Ongoing.

### **(d) HUMAN DEVELOPMENT HEALTH AND EDUCATION**

#### *Completed Studies*

#### **15. Understanding the Influence of Socio-economic Attributes on Varying Levels of Trust on Institutions Among the Indian Households: A Temporal Assessment**

Hrushikesh Mallick, Udaya Shankar Mishra and Balakrushna Padhi (JNU)

Status: Completed

#### **16. Shared Prosperity through Education? Chinese Turnaround in Regional Inequality and The Role of Education**

K.J. Joseph, Liyan Zhang (Tianjin University) and Kiran Kumar Kakarlapudi (Post Doctoral Fellow, NRPPD)

Status: Completed

#### **17. Abuse and Neglect of the Elderly in India**

Mala Kapoor Shankardass (University of Delhi) and S. Irudaya Rajan (Eds.)

Status: Book published by Springer Nature Singapore, Pte Ltd. 2018.

#### **18. What is Economic Development? A Comparative Performance of Indian States**

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

Status: Book Published with Social Science Press, New Delhi, 2019.

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

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

Status: Journal of Public Health (Online)

#### **20. Does Quality Qualify the Kerala Model? Decentralized Governance, Human Development and Quality**

N. Vijayamohanan Pillai

Status: Completed

**21. Development as a ‘Norms-Rights Transition Process’ Through Public Action**

N. Vijayamohanan Pillai

Status: Completed

**22. The Dialectics of Motivation and Action: A Look into the ‘Why’ of the “Kerala Model”**

N. Vijayamohanan Pillai

Status: Completed

***Ongoing Studies***

**23. 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 Karakpur) & Hemachandra Padhan (IIT Madras)

Status: Ongoing

**RESEARCH PROJECTS**

***Ongoing Projects***

**24. 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

Status: Ongoing.

**25. Resource Allocation in lieu of State’s Demographic Achievements in India: An Evidence-Based Approach**

S. Irudaya Rajan and U.S. Mishra

*Sponsor:* Finance Commission, Govt. of India

Status: Ongoing.

**(e) INDUSTRY AND TRADE**

***Completed Studies***

**26. Structure and Direction of International Trade through Kerala Ports**

P.L. Beena and George Paily (Doctoral Scholar)

Status: Submitted for CDS Working Paper.

**27. Growth Strategies, Profitability and Developmental Implications of Indian Industries through the Lens of IPR Institutions**

P.L. Beena and Siddik Rabiyyath (Assistant Professor, Economics Department, Kerala University)

Status: Completed.

**28. Does on the Job Training Increase Labour Productivity and Wages? Firm-level Evidence from India's Manufacturing Sector**

K.J. Joseph

Status: Completed.

**29. Efficiency of Indirect Taxes in Oligopoly in the Presence of Fixed Costs of Production**

Rajit Biswas and Neelanjan Sen (Madras School of Economics)

Status: Completed.

**30. Taxes and Unemployment**

Rajit Biswas and Vandana, T.R. (Research Intern at National Accounts Analysis Division, Department of Economic and Policy Research, Reserve Bank of India)

Status: Completed.

**31. Price Dispersion in Indian Online Market: Seller vs. product Effects**

Ritika Jain and Anupama K John (Centre for Social & Economic Studies)

Status: Submitted to Festschrift by Springer International.

**32. Effects of Product Patenting on Market Structure and Prices: Evidence from Post-TRIPS Pharmaceutical Industry in India**

Sudip Chaudhuri

Status: Revised and completed and submitted for publication.

**33. Graduation from LDC Status and the Pharmaceutical industry in Bangladesh**

Sudip Chaudhuri

Status: Completed and submitted to the sponsor, the South Centre, Geneva. The study involved a field trip to Bangladesh.

**34. India-China Trade: Asymmetrical Developments and Future Prospects.**

Sunandan Ghosh, Manmohan Agarwal, Adrita Banerjee (Research Scholar)

Status: *South Asia Economic Journal*, Vol. 20(1), 70-93.

**35. Parallel Imports, Product Quality and Endogenous Trading Bloc Formation**

Sunandan Ghosh

Status: *Economics Bulletin*, Vol. 38(3), 1415-1427.

**36. Enlargement Decisions of Regional Trading Blocs with Asymmetric Member Formation**

Sunandan Ghosh

Status: *CDS Working Paper Series*, No. 480.

**37. Delegation in Customs Union under Taste Diversity**

Sunandan Ghosh

Status: Revise and resubmit stage of reviewing.



### **38. Protectionism: US Tariff Policy and India's Response (Part II)**

Sunandan Ghosh

Status: CDS Commentary on India's Economy and Society Series – 4.

#### ***Ongoing Studies***

### **39. IPR Institutions, Growth strategies and Developmental implications of Indian Industries**

P.L. Beena

Status: Ongoing.

### **40. Mergers & Acquisitions and Antitrust Implications in Industrial Sector**

P.L. Beena

Status: Ongoing.

### **41. OFDI and CBM&As in Indian Industries: Trends, Determinants and Implications**

P.L. Beena

Status: Ongoing.

### **42. Tariff Protection, Home Market Effects and Non-Traded Goods**

Rajit Biswas

Status: Ongoing.

### **43. The Case of the Missing Middle in Indian Manufacturing Sector: A Firm-Level Analysis**

Vinoj Abraham and Sunandan Ghosh

Status: Ongoing.

## **RESEARCH PROJECTS**

#### ***Completed Projects***

### **44. Business Distress in Kerala: A Case Study of Chendamangalam Handloom Industry**

Sunil Mani, P.L. Beena and Kavitha P (Doctoral Scholar)

*Sponsor:* World Economy Project funded by Govt. of Kerala, 2018-19.

Status: Completed Report.

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

### **45. Structure, Direction and Export Contribution of Cochin SEZ in Kerala**

P.L. Beena

*Sponsor:* Kerala World Economy Project, Govt. of Kerala.

Status: Ongoing.

## **(f) INNOVATION AND TECHNOLOGY**

### ***Completed Studies***

#### **46. Innovation -Productivity Paradox in India's Manufacturing Sector- An Analysis Using Innovation System Perspective**

K.J. Joseph and Kiran Kumar Kakarlapudi (Post Doctoral fellow, NRPPD)

Status: Completed.

#### **47. Effect of R&D on Corporate Social Responsibility: Does Ownership Matter? Evidence from Indian Manufacturing Firms**

Ritika Jain

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

#### **48. Ownership Effects on R&D Spending in India: Does External Borrowing Matter?**

Ritika Jain

Status: *International Journal of Technological Learning, Innovation and Development*, 10(2), 159-175 (2018).

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

Ritika Jain

Status: Submitted to *Journal of Policy Modeling*.

#### **50. Dimensions of India's Intellectual Property Right System, How Many Patents are Commercially Exploited in India?**

Sunil Mani

Status: Published as Paper 2 in the Commentary Series on India's Economy and Society. Revised, expanded and to be published as a journal article.

## **RESEARCH PROJECTS**

### ***Completed Projects***

#### **51. IPR Regime and IP Asset Intensive Industries**

P.L. Beena and Siddiq Rabiyyath (Assistant Professor, Economics Department, Kerala University)

*Sponsor:* ICAE, Kerala University

Status: Project Report submitted to the Inter-University Centre for Alternative Economics, Kerala University. Plan to publish in the International journal.

### ***Ongoing Projects***

#### **52. The State and the Maintenance of Agro Biodiversity in Kerala**

Sunil Mani, V. Santhakumar (Azim Premji University) and T. Abhilash

*Sponsor:* FAO India

Status: Ongoing, expected date of completion: August 31, 2019.

### *New Initiatives*

#### **53. The Growth and Emergence of Trade and Investment in Intangibles in India**

Sunil Mani

Status: New Initiative.

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

Sunil Mani

Status: New Initiative.

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

#### *Completed Studies*

#### **55. Job Reservations, Disinvestment and Firm Performance among Indian Public Sector Enterprises**

Ritika Jain and Vinoj Abraham

Status: Completed.

#### **56. Effect of Education-Occupation Mismatch on Wages in India**

Udaya Shankar Mishra and Banantika Dutta (IIM, Bangalore)

Status: Completed.

#### **57. Jobless Growth or Structural Transformation in India?**

Vinoj Abraham

Status: Completed.

#### **58. Dynamic Nature of Jobless Growth in India?**

Vinoj Abraham

Status: Completed.

#### **59. Towards Enhancing The Effectiveness Of Minimum Wage Systems: The Wage Protection System In Kerala**

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

Status: Published in *Labour and Development*, Vol. 25, No. 2, December, 2018.

#### **60. Labour Market Institutions and New Technology: The Case of Employment Service in India, Indian Journal of Labour Economics.**

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

Status: Published in *Indian Journal of Labour Economics.*, 61: 453.  
[https://doi.org/10.1007/s41027-018-0144-1\(2018\)](https://doi.org/10.1007/s41027-018-0144-1(2018)).

**61. MGNREGS: Political Economy, Local Governance and Asset Creation in South Indian States.**

Vinoj Abraham

Status: Chapter in an edited volume by Madhusudan Bhattarai, P.K. Viswanathan, Rudra N. Mishra, Cynthia Bantilan titled *MGNREGS in India*.

***Ongoing Studies***

**62. Skilled-unskilled Wage-gap in Indian Manufacturing: Some Explorations**

Sunandan Ghosh, Simontini Das (Rabindra Bharati University) and Saikat Sinharoy (Jadavpur University, Kolkata)

Status: Ongoing.

**63. Transformation of Rural Households in Economic Activities and Employment**

Vinoj Abraham

Status: Ongoing.

**(h) MACROECONOMIC PERFORMANCE**

***Completed Studies***

**64. Outward FDI and Cross-Border M&As by Indian Firms: A Host Country-Level Analysis**

P.L. Beena

Status: *CDS Working Paper* No.479.

**65. Economic Integration in South Asian Region: India's Role**

P.L. Beena and Meena Chacko (Researcher)

Status: Completed.

**66. Unionised Labour Market, Environment and Endogenous Growth**

Chandril Bhattacharyya and Manash Ranjan Gupta (Economic Research Unit, Indian Statistical Institute, Kolkata)

Status: Completed.

**67. Informality, Governance and Growth**

Chandril Bhattacharyya and Dibyendu Maiti (Delhi School of Economics)

Status: Completed.

**68. Role of Globalization, Infrastructure, Human Capital Formation in Income Inequality: Contrasting Insights from Two Emerging Economies, China and India**

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

Status: Completed.

**69. Globalisation, Government Capital Spending and Private Investment in India**

Hrushikesh Mallick

Status: Completed.

**70. FDI Inflows and Regional Variations in Per Capita Incomes among a Group of Developing Asian Economies**

Hrushikesh Mallick

Status: Completed.

**71. Do International Crude Oil Price and Public Investment Affect Private Investment? An Empirical Analysis for a Large Emerging Economy**

Hrushikesh Mallick, Mantu Kumar Mahalik (IIT Kharagpur) & Manoranjan Sahoo (IIT Madras)

Status: Published in *Energy Economics* 69 (2018) 307–324.

**72. Is Skewed Income Distribution Good for Environmental Quality? A Comparative Analysis among Selected BRICS Countries**

Hrushikesh Mallick, Mantu Kumar Mahalik (IIT Kharagpur), Hemachandra Padhan (IIT, Madras) & Bhagaban Sahoo (Anandapur College)

Status: Published in *Environmental Science and Pollution Research*, 25(23): 23170–23194, June 2018.

**73. Does Skewed Pattern of Income Distribution Matter for the Environmental Quality? Evidence From Selected BRICS Economies With An Application of Quantile-On-Quantile Regression (QQR) Approach**

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

Status: Published in *Energy Policy*, Vol.129, 2019, Pages 120-131.

**74. Don Quixote in Utopia: Some Reflections on “Demonetized” Economy**

N. Vijayamohanan Pillai

Status: Completed.

**75. An Empirical Analysis of Disinvestment Policy in India: Does Ideology Matter?**

Ritika Jain and Shubhro Sarkar (IGIDR)

Status: *Journal of Economic Policy Reform*, 1-15 (2018).

**76. Contributions to the Exchequer Funds by State-level Public Sector Enterprises: Does Political Alignment Matter?**

Ritika Jain

Status: *Constitutional Political Economy*, 29(1), 93-113 (2018).

**77. To Profit of Not Profit? The Case of State Level Public Sector Enterprises in India.**

Ritika Jain

Status: *Keio Economic Studies*, 53, 53- 70 (2018).

**78. Welfare Cost of Inflation: Evidence from India**

Srikanta Kundu, Irfan Ahmad Shah (Doctoral Scholar) and Manmohan Agarwal

Status: Published in *Journal of Quantitative Economics*.2018.

**79. 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: Completed.

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

Srikanta Kundu, Kushal Banik Chowdhury (ISI Tezpur) and Kaustav Kanti Sarkar (ISI Kolkata)

Status: Completed.

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

Srikanta Kundu, Mahamitra Das and Nityananda Sarkar (ISI Kolkata)

Status: Completed.

**82. Effect of Economic Policy Uncertainty on Stock Market in Different Market Conditions: A Regime Switching Analysis for G-7 Countries**

Srikanta Kundu and Amartya Paul (Doctoral Scholar)

Status: Completed.

***Ongoing Studies***

**83. Union, Efficiency of Labour and Endogenous Growth**

Chandril Bhattacharyya and Manash Ranjan Gupta (Economic Research Unit, Indian Statistical Institute, Kolkata)

Status: Ongoing.

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

Hrushikesh Mallick

Status: Ongoing.

**85. Modelling Inflation Dynamics in India**

M Parameswaran and Pulapre Balakrishnan (Ashoka University)

Status: Ongoing.

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

M Parameswaran

Status: Ongoing.

**87. Economic Policy Uncertainty and Inflation Uncertainty: Evidence from Developed and Emerging Economies**

Srikanta Kundu, Kushal Banik Chowdhury and Amartya Paul (Doctoral Scholar)

Status: Ongoing.

*New Initiatives*

**88. Impact of Climate Change and Institutional Credits on Agricultural Productivity in India**

Hrushikesh Mallick

Status: New initiative.

**89. Effects of Institutional Quality and Public Outlays on Growth and Inequality Across the Indian States**

Hrushikesh Mallick and Amit Kumar Nandan

Status: New initiative.

**(i) MIGRATION**

*Completed Studies*

**90. India Migration Report 2018: Migrants in Europe**

S. Irudaya Rajan (Editor)

Status: Book by Routledge.

**91. India Migration Report 2019: Diaspora in Europe**

S. Irudaya Rajan (Ed.)

Status: Book by Routledge.

**92. South Asia Migration in the Gulf: Causes and Consequences**

Mehdi Chowdhury and S. Irudaya Rajan (Eds.)

Status: Book by Palgrave MacMillan.

**93. Youth Migration in Emerging India: Trends, Challenges and Opportunities,**

S. Irudaya Rajan and P. Sivakumar (Eds.)

Status: Published by Orient BlackSwan.

**94. Emigration from Kerala: End of an Era**

K.C. Zachariah and S. Irudaya Rajan

Status: Published by Redink.

**95. The Double Speak of India's Emigration Policy: Unravelling the Debilitating politics of Protection of Women through the Emigration Check Required Category**

Praveena Kodoth

*Sponsor:* Kerala in the World Economy

Status: Completed.

### *Ongoing Studies*

#### **96. Ageing and Healthy Intervention in India**

S. Irudaya Rajan and U.S. Mishra

Status: Ongoing.

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

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

Status: Ongoing.

#### **98. India's Unskilled Migration to the Middle-East: Policies, Politics and Challenges**

S. Irudaya Rajan and Prem Saxena (International Institute for Population Sciences, Mumbai) (Eds.)

Status: Ongoing.

#### **99. Asianisation of Migrant Workers in the Gulf Countries**

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

Status: Ongoing.

#### **100. Household Demographics of India**

Udaya Shankar Mishra and Sanjay K Mohanty

Status: Ongoing.

### *New Initiatives*

#### **101. Kerala Diaspora, Analysis of their Contribution to Kerala's Economy**

Sunil Mani and KM Chandrasekhar

*Sponsor:* To be submitted to the research programme, "Kerala and the World Economy"

Status: New Initiative.

## **RESEARCH PROJECTS**

### *Completed Projects*

#### **102. Kerala Migration Survey, 2018**

K.C Zachariah and S. Irudaya Rajan

*Sponsor:* Department of NORKA, Govt. of Kerala and REALM

Status: Report submitted to Government of Kerala.

#### **103. Demography, Migration and its Impact on Kerala Economy**

*Sponsor:* ILO, New Delhi.

S. Irudaya Rajan, U. S. Mishra and K.C Zachariah

Status: Completed.



**104. Kerala Migration Survey 2018 Panel Surveys**

*Sponsor:* REALM

S. Irudaya Rajan and K.C Zachariah

Status: Completed.

***Ongoing Projects***

**105. 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.

**106. Flood and Migration in Kerala**

*Sponsor:* REALM

S. Irudaya Rajan

Status: Ongoing.

**(j) PLANTATION CROPS**

***Completed Studies***

**107. Setting the Prices Right? An Empirical Analysis of e-auction in Cardamom**

K.J. Joseph and Kiran Kumar Kakarlapudi (Post Doctoral Fellow, NRPPD)

Status: Completed.

**108. Constraints to Diffusion/Adoption of Innovations in Natural Rubber: Study of Tapping Practices and Rain Guarding**

K.J. Joseph and Kiran Kumar Kakarlapudi (Post Doctoral Fellow, NRPPD)

Status: Completed.

**109. The Harvest is Plentiful but the Harvesters are a Few? An Exploration of the Below Potential Production of Natural Rubber in Kerala**

K.J. Joseph and Kiran Kumar Kakarlapudi (Post Doctoral Fellow, NRPPD)

Status: Completed.

***Ongoing Studies***

**110. Diffusion/Adoption of Innovations in Coffee: A Study of Chandragiri Variety**

K.J. Joseph, P.K. Viswanathan, (Amritha Institute of Management, Kochi) and Sajitha A.

Status: Ongoing.

**111. Post-harvest Issues in Spices: Study of Coriander and Cumin**

K.J. Joseph, S. Mohanakumar (IDS Jaipur)

Status: Ongoing.

## **(k) POLITICS AND DEVELOPMENT**

### ***Completed Studies***

#### **112. Is Nepotism Inevitable Under Search and matching Friction?**

Rajit Biswas and Debojyoti Mazumder (IIM Indore)

Status: Completed.

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

Ritika Jain

Status: Completed.

#### **114. The Impact of Ideology on Disinvestment Decisions of a Coalition: A Game-Theoretic Analysis**

Ritika Jain with Shubhro Sarkar (IGIDR)

Status: *Public Finance Review*, 46(5), 821-849 (2018).

### ***Ongoing Studies***

#### **115. Path Dependency: A Marxist Interpretation**

N. Vijayamohanan Pillai

Status: Ongoing.

#### **116. Revisionism: The Game of Filling in the Marxian**

N. Vijayamohanan Pillai

Status: Ongoing.

### ***New Initiative***

#### **117. Political Economy of Forest Produces: Experience from Kerala**

Abhilash T

Status: New Initiative.

## **OTHER STUDIES**

### ***Completed Studies***

#### **118. The Many Incarnations of Kuriyedathu Thattri', Afterword to the English translation of Madampu Kunhukkuttan's *Bhrasht***

J. Devika

Status: Published in Aleph Books, New Delhi, 213-222.

#### **119. Towards Reparative Readings: Reflections on Feminist Solidarities in a Troubling Present**

J. Devika

Status: *South Asian History and Culture*, 9:4, 407-419, DOI:10.1080/19472498.2018.1535545

**120. Panel Data Analysis with Stata: Part 2- Problems of Non-Spherical Error**

N. Vijayamohanan Pillai

Status: Completed.

**121. Panel Data Analysis with Stata: Part 3 - Problem of Endogeneity**

N. Vijayamohanan Pillai

Status: Completed.

**122. Energy Efficiency in Kerala**

N. Vijayamohanan Pillai

Status: Completed.

**RESEARCH PROJECTS**

*Ongoing Projects*

**123. Sector-wise Electrical Energy Intensity in Kerala Factoring in Energy Efficiency and Productivity**

N. Vijayamohanan Pillai

*Sponsor:* Energy Management Centre, Trivandrum.

Status: Ongoing.

**CENTRE FOR DEVELOPMENT STUDIES**  
**ULLOOR, THIRUVANANTHAPURAM**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH, 2019**

EXPENDITURE	31 March 2019	31 March 2018	INCOME	31 March 2019	31 March 2018
1 Faculty & Staff Cost	6,18,36,152.00	5,71,33,938.00	Grant in Aid		
2 Fellowship	46,40,003.00	39,82,275.00	A. From ICSSR	2,55,48,000.00	
3 Academic Development	1,00,34,459.00	1,14,31,796.00	Salary	50,00,000.00	3,26,00,000.00
4 Repairs & Maintenance	83,98,221.00	78,10,856.00	Non-Salary		
5 Administrative Expenses	27,75,377.00	25,85,422.00	B. From Govt. of Kerala	3,10,00,000.00	6,26,22,000.00
6 Sponsored Research/ Fellowship/ Projects Expense	1,31,93,458.00	1,76,24,357.00	Plan	3,34,65,000.00	
7 Surplus From & Recovery of Overheads Transferred to Endowment Fund	88,15,589.00	98,77,616.00	Non-Plan		
ICSSR Orientation Program for SC/ST	5,00,000.00	14,00,000.00	Total Grant (A+B)	9,50,13,000.00	9,52,22,000.00
Net Income from Earmarked Funds Transferred to Respective Funds	4,05,71,283.00	4,04,29,912.00	Less: Utilised for Capital Expenditure	1,19,09,876.00	1,62,68,940.00
Depreciation	1,41,42,826.00	1,36,64,543.00		8,31,03,124.00	7,89,53,060.00
			ICSSR Orientation Program - SC/ST	5,00,000.00	14,00,000.00
			Fees Received	9,23,190.00	9,96,760.00
			Other Income	25,01,257.00	
			Less: Transferred to Endowment Fund	20,51,594.00	
			Sponsored Research/ Fellowship/ Project/ Income Transferred	4,49,663.00	3,80,856.00
			Surplus From & Recovery of Overheads Transferred from Project Funds	1,31,93,458.00	1,76,24,357.00
			Interest on Investment of Earmarked Funds	88,15,589.00	98,77,616.00
			Less: Expenditure	5,54,38,505.00	
			Transfer from General Fund (Depreciation)	1,48,67,222.00	4,04,29,912.00
			Transfer from Endowment Fund (Deficit)	1,41,42,826.00	1,36,64,543.00
			TOTAL	32,08,235.00	26,13,611.00
				16,49,07,368.00	16,59,40,715.00

Notes to Accounts as per Schedule I,  
For Centre for Development Studies

As per our report of even date attached  
For SRIDHAR & CO.  
CHARTERED ACCOUNTANTS (FRN.0039788)

**CENTRE FOR DEVELOPMENT STUDIES**  
**ULLOOR, THIRUVANANTHAPURAM**  
**BALANCE SHEET AS AT 31st MARCH, 2019**

LIABILITIES	Sch	As at 31.3.19 (Rs.)	As at 31.3.18 (Rs.)	ASSETS	Sch	As at 31.3.19 (Rs.)	As at 31.3.18 (Rs.)
General Fund	A	10,59,56,825.00	10,73,74,457.00	Fixed Assets	G	10,51,09,675.00	10,65,27,307.00
Earmarked Funds	B	80,01,18,563.00	75,17,68,684.00	Investments	B	79,53,75,408.00	74,77,83,030.00
Deposits	C	13,11,495.00	12,70,095.00	Earmarked Funds			
Current Liabilities	D			Loans & Advances			
Outstanding Expenses		7,71,373.00	1,00,300.00	W F Loan/ Other Advance	H	61,87,320.00	47,50,552.00
Other Amounts Payable		19,716.00	17,556.00	Prepaid Expenses	I	9,46,799.00	6,62,378.00
Unspent Grant	E	23,26,399.00	23,26,399.00	Current Assets			
Sponsored Projects & Fellowships				Closing Stock	J	70,689.00	50,789.00
Unspent Grant	F	96,49,990.00	1,31,43,515.00	Cash & Bank Balance	K	1,24,64,470.00	1,62,26,950.00
<b>TOTAL</b>		<b>92,01,54,361.00</b>	<b>87,60,01,006.00</b>	<b>TOTAL</b>		<b>92,01,54,361.00</b>	<b>87,60,01,006.00</b>

Notes to Accounts as per Schedule L  
**For Centre for Development Studies**

As per our report of even date attached  
**For SRIDHAR & CO.**  
**CHARTERED ACCOUNTANTS (FRN.003978S)**

31.05.2019  
Thiruvananthapuram

S.SUNNIKRISHNAN  
Partner(M.No.218366)

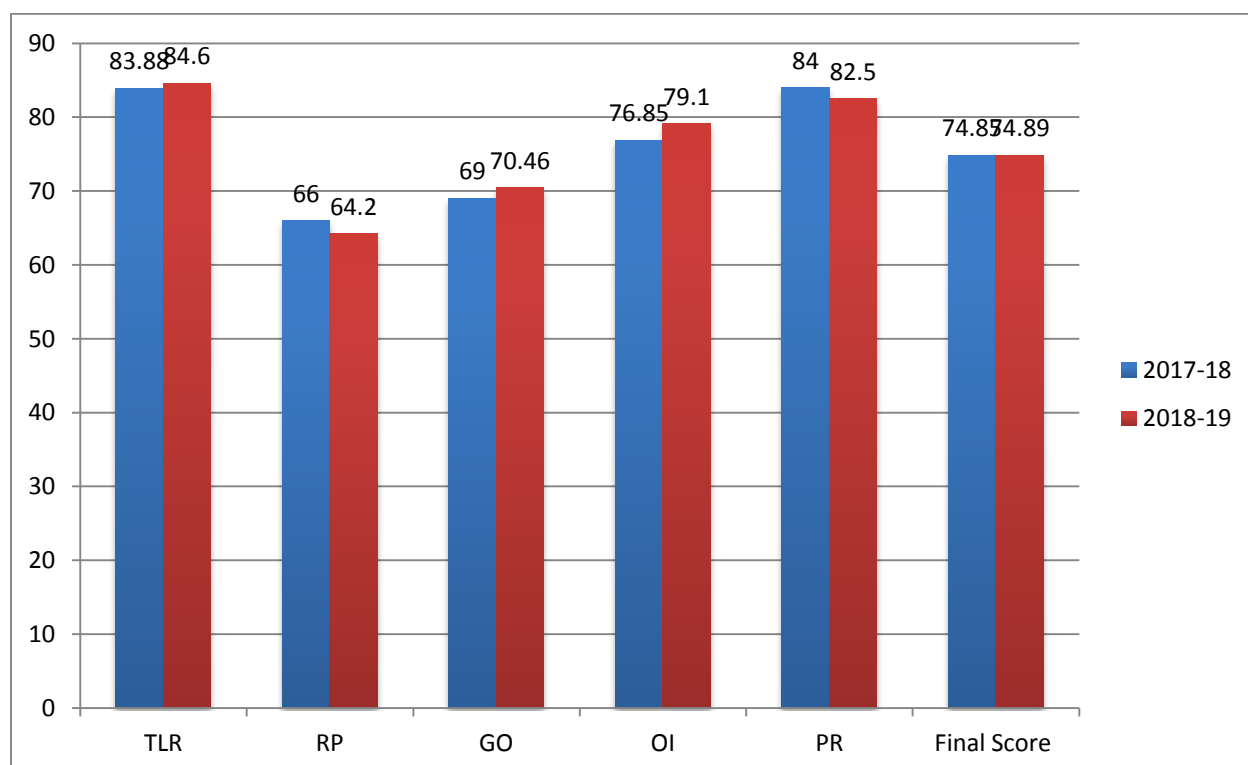
## NATIONAL INSTITUTIONAL RANKING FRAMEWORK

The Ministry of Human Resource Development has introduced a comprehensive framework for assessing and charting the performance of higher education institutes in the country. Based on the framework, ranking of universities, colleges and institutes are now available for the years 2017, 2018 and 2019. The framework considers five parameters and each of the parameters have a number of sub-indicators as well. The five parameters are: Teaching and learning resources, Research and professional practice, Graduation outcomes, Outreach and inclusivity, and Perception. Score out of 100 are computed for each of these five and then weighted average of the scores are then computed out of a possible 100. CDS is not eligible to participate in the NIRF framework, as it does not satisfy the threshold fixed for the number of students. However, it is useful for CDS to find out its NIRF score so that we can benchmark ourselves against other higher education institutes, which are formally ranked according to this framework. It must be added that we did have to impute some values (especially for the fifth parameter on perception. So the scores given below must be taken only as indicative and not very definite. Nevertheless, with a final score at 74.89 out of 100, CDS is one of the top-ranking research and teaching centres in the country. The final score for 2018-19 is not different from that of the previous year.

Sr No.	Parameters	Marks
<b>1.</b>	<b>Teaching, Learning &amp; Resources ( TLR)</b> <b>Ranking weight:0.30</b>	<b>100</b>
	A. Student Strength including Doctoral Students(SS):20 Marks	11.4
	B. Faculty-student ratio with emphasis on permanent faculty ( FSR): 30 marks	30
	C. Combined metric for Faculty with PhD(or equivalent) and Experience(FQE): 20 Marks	19.7
	D. Financial Resources and their utilisation(FRU): 30 Marks	23.5
<b>2.</b>	<b>Research and Professional Practice(RP)</b> <b>Ranking Weight:0.30</b>	<b>100</b>
	A. Combined metric for Publications(PU): 30 marks	30
	B. Combined metric for Quality of publications (QP): 40 marks	20
	C. IPR and Patents: Filed, Published, Granted and Licensed (IPR):15 marks	4.2
	D. Footprint of Projects, Professional Practice and Executive Development Programs(FPPP):15 marks	10
<b>3.</b>	<b>Graduation Outcomes(GO)</b> <b>Ranking Weight:0.20</b>	<b>100</b>
	A. Combined metric for Placement, Higher Studies, and Entrepreneurship (GPHE): 40 marks	27
	B. Metric for University Examinations(GUE): 15 marks	15
	C. Median Salary (GMS):20 marks	10.5
	D. Metric for Graduation Studies Admitted Into Top Universities (GTOP): 15 marks	7.96
	E. Metric for Number of PhD Students Graduated (GPHD): 10 marks	10

<b>4.</b>	<b>Outreach and Inclusivity(OI)</b> <b>Ranking Weight:0.10</b>	<b>100</b>
	A. Percent Students from other states/countries (Region Diversity RD): 30 marks	19.9
	B. Percentage of Women(Women Diversity WD):25 marks	22.2
	C. Economically and socially challenged Students (ESCS):25 marks	25
	D. Facilities for Physically Challenged Students(PCS):20 marks	12
<b>5.</b>	<b>Perception (PR)</b> <b>Ranking weight:0.10</b>	<b>100</b>
	A. Peer Perception: Employers and Research Investors(PREMP):25 marks	20
	B. Peer Perception: Academic peers (PRACD):25 marks	20
	C. Public Perception(PRPUB):25 marks	20
	D. Competitiveness(PRCMP):25 marks	22.5
<b>Final Score :{( 0.3x84.6) +0.3x64.2) + (0.2x70.46) +(0.1x79.1) + (0.1x82.5)} =74.89</b>		

**NIRF Scores for CDS, 2018-19**



**HONORARY FELLOWS /ASSOCIATE FELLOWS**  
**(As on 31.3.2019)**

*Honorary Fellows*

<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>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

*Honorary Associate Fellows*

<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