

Annual Report 2017-18



CENTRE FOR DEVELOPMENT STUDIES

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

Thiruvananthapuram

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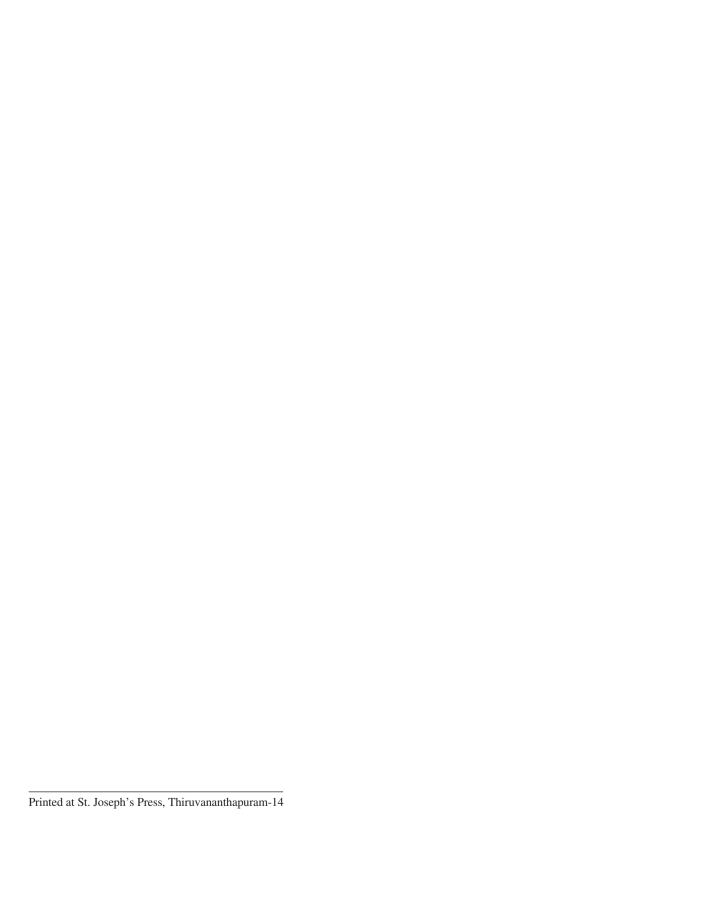
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- Government of Kerala
- Planning Board, Government of Kerala
- Indian Council of Social Science Research
- University Grants Commission
- Jawaharlal Nehru University
- University of Kerala
- Reserve Bank of India
- NITI Aayog, Government of India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

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

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OVERVIEW

Centre for Development Studies (CDS) was established as an autonomous social science research institute on 19 October 1970. It was the leadership and vision of Shri C. Achutha Menon, Chief Minister of Kerala that led to the creation of several research centres in Kerala in different disciplines related to the development of the State. In the case of CDS, he was able to persuade legendary development economist Professor K. N. Raj to set up the Centre and provide intellectual leadership. Professor Raj continued to remain the driving force behind all academic activities of CDS for over two decades. CDS was also fortunate to have Laurie Baker, a radically innovative architect, visualise and design its campus and buildings in a distinctive but cost-effective manner. The architectural splendour of CDS campus is the result of this vision and effort of Laurie Baker.

Over the past forty eight years, CDS has crossed several milestones. During the 1970s, although a large part of academic research conducted at CDS was devoted to issues pertaining to the national economy, it was natural that CDS researchers devoted significant attention to issues pertaining to the economy and society of Kerala, given CDS's location. The widely acclaimed Kerala model of development was an outcome of academic research conducted at CDS during this time. In the mid-1970s, CDS became an institution affiliated to the Indian Council of Social Science Research (ICSSR) and started receiving a part of its core funding from this agency. Right from its inception, CDS emphasised on training of young researchers and it launched MPhil and PhD programmes, recognised by Jawaharlal Nehru University, New Delhi. It also ran a PhD programme affiliated to the University of Kerala.

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



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

Another major milestone for CDS in the recent years is the launch of its MA programme in Applied Economics in 2012. This is a unique Master's programme in Economics that aims at providing a rigorous training in theory, tools and methods for applied economic analysis, with a special focus on issues of economic development. The degree is awarded by Jawaharlal Nehru University (New Delhi). The introduction of the MA programme marked a paradigm shift in CDS's academic profile. Faculty members now devote a significant part of their time to teaching courses in this full-fledged programme, over and above their research commitments and research supervision.

Personnel

With a view to attract and retain faculty at CDS, seed money for research support to the tune of 4 lakhs per faculty member has been implemented. This is granted for a cycle of five years. This year several faculty members availed of this facility.

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

This year two faculty members were promoted to the post of Professor under the CAS Scheme from March 17, 2018 onwards. Two staff members, one each from the Academic Programme Office and Accounts Section have been promoted to Assistant Administrative Officer and Assistant Account Officer respectively, with effect from 28 February, 2018 onwards. The year also saw two retirements, one from the Library and the other from the Accounts Section.

Academic Programmes

The three degree programmes – MA in Applied Economics, integrated MPhil/PhD in Applied Economics – are the three pillars of the Centre's academic activities. The MA and MPhil, 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 6 students were selected for the programme and they have secured internships at prominent universities in the UK, Germany, The Netherlands and Belgium.

The admission tests for M.A. and Integrated MPhil/PhD programmes are now conducted at 6 centres across the country. In 2017, the cities in which the centre organised the entrance examination were New Delhi, Pune, Hyderabad, Kolkata, Kozhikode and Trivandrum.

In the year 2017-18, 6 PhD degrees were awarded and 6 PhD theses were under evaluation. In the same year, all 7 MPhil students submitted their thesis and none of them have been awarded degrees. In 2017, 291 students applied for the Integrated MPhil/PhD programme, 224 appeared for the written exam 11 were admitted and all of them joined. For the PhD programme, 14 students from the MPhil (2014-15 and 2015-17 MPhil batches were offered admission under the integrated MPhil/PhD programme.

The MA programme is now into the sixth batch. For the academic session 2017-18, 852 candidates applied for admission of which 668 appeared for the entrance test and 21 students were finally admitted to the programme.

The SAARC Scholarship for MA students, launched last year provides five scholarships to students from SAARC countries that enroll in the MA programme. This year five applications were received, three from Bhutan and two from Nepal.



However, only two students from Bhutan joined the programme. This is made possible by the generous funding of the State government which enables our M A programme to go international.

Research

Research at the Centre extends beyond pure academic research and focuses on policy oriented research that acts as important academic input for informed policy making. This has been a part of CDS's mission right from its inception and this component of research often accounts for a significant share of faculty's research time. Many of these policy research outputs may not necessarily take the form of academic publications. Nevertheless, the Centre is able to record over 70 publications in the year 2017-18.

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.

The new Research Unit on 'Kerala and the World Economy' made possible by the onetime endowment grant of Rs 300.00 lakh sanctioned by the Government of Kerala last year has taken off well, with new projects being taken up by the faculty.

Research Projects / Sponsored Studies

As usual, CDS faculty remained actively engaged in conducting sponsored research projects during 2017-18. 'A Panel Study of Migration in South India,' sponsored by the New York University was completed during the year. A study sponsored by the State Planning Board on 'Assessing Development: Where are the Indian States?' was published as a CDS Monograph. 'Migration, Remittances and Dutch Disease: Evidence from Kerala Economy,' a study funded by

the Research Unit on Kerala and the World Economy, and two studies funded by the Seed money for faculty on 'Outward FDI and Cross-Border M&As by Indian Firms and Is there Complementarity between Aid, Trade and FDI from India' and 'Pattern of International Trade through Kerala under WTO Regime' funded by the unit on Kerala and the World Economy, have been completed. Under the Research Unit on Local Self Government, three studies in the Lateral Studies Series on Kudumbashree, titled 'Local Organisations in Kerala Support Ageing in Community'; 'Masculinity at the Interface of Liberalised Development: Reflections from an Urban Slum in Kerala,' and 'Kudambashree and its Rivals: Reflections on Women's Citizenship, Social Connections and SHGs in Kerala' were completed this year.

Ongoing research projects include a study on 'Kerala Migration Survey 2018' sponsored by the Department of Norka, Govt of Kerala, and an ILO sponsored study on 'Demography, Migration and its impact on Kerala Economy. 'Should we provide incentives for investment use of remittances? A Randomized controlled experiment for india' initiated in 2016, sponsored by UAE Exchange Centre LLC is nearing completion. Kerala Migration Survey 2018 Panel Surveys initiated this year and sponsored by REALM is in continuation with the periodic surveys to collect information on emigration, return emigration and remittances since 1998. A study sponsored by SSHRC looks into 'Relative Contributions of Adult Daughter and Sons to Elderly Parents' Care in India which focuses on care arrangements in daughter-only families in India. A more recent study on Impacts of Demand-side Financing Instruments on the Continuum of Care for Maternal and Child Health in India and Bangladesh sponsored by DBT-MRC-DFID and a sponsorship from EMERGE Reaserch Grant from University of California san Diego for the Preparation of a Gender Development Index is underway.

A study sponsored by the RULSG small grant scheme, 'Persisting Pollution in the Periyar: The Political Ecology of Industrialisation and Limits to Environmental Governance,' intends to examine political ecology of industrialisation in the lower Periyar basin is progressing.



Under the Research Unit on Kerala and the World Economy the following studies were imitated during the reporting year, 'Kerala's Labour Market in the World Economy' by Vinoj Abraham; 'Trade in Commodity and Services from Kerala' by PL Beena; 'Role of Remittance in Determining Economic Growth and its Structure' by M Paramewsaran; 'Gender and Labour Migration' by Praveena Kodoth and a 'Study of the Aviation Industry in Kerala' by Sunil Mani.

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 11 open seminars were conducted. In addition to this, 6 seminars were given by the faculty and students. CDS also organised 22 international/national seminars, conferences and workshops and academic discussions with distinguished speakers from India and abroad including 4 Short-term Training Programmes. Three annual public lectures were also organised.

A Public Lecture on 'The Science of Climate Change,' by Dr J. Srinivasan (Honorary Professor, IISc, Bangalore) was delivered at the CDS on 16 October, 2017.

Dr Mihir Shah (Distinguished Visiting Professor, Shiv Nadar University) delivered the Sixth Foundation Day Lecture on 'Redefining Reform-New Paradigm of Water Governance in India,' at the Centre on 4 December, 2017.

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

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

A week-long course on 'State and Civil Society in Development and Environmental Governance in India,' for students of the Department of International Environment and Development Studies (Noragric) of the Norwegian University of Life Sciences (NO-NMBU) was organised in August –September.

The Centre organised a capacity building programme for doctoral candidates belonging to Scheduled Caste and Scheduled Tribe, minorities and other marginalized Groups. It was organised in two batches between 8th and 12th January (First Batch) and between 5th and 9th March (Second Batch).

A workshop was conducted on the theme "Development, Welfare, and Well-being from Below: Challenges to Reporting from/of the Local" by the Research Unit on Local Self Governments (RULSG) in association with the Asian College of Journalism, Chennai.

The Centre has been conducting the training programmes on methods and approaches in research on migration issues and this year its twelfth programme was on held during November. The programme was sponsored by Rajiv Gandhi National Institute of Youth Development (RGNIYD), Chennai and Loyola Institute of Social Science Training and Research (LISSTAR), Chennai.

This was the first time that the 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 (86) and abroad (25). 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. In 2017-18, three teacher fellows and four research fellows within the State availed of the fellowships during the year. The Centre also provided research affiliations to researchers from the United States, Canada and South Africa for a period of study at the Centre.

Infrastructure Development

The year saw a large number of improvements and additions to the facilities in the campus. A permanent solution to leaking of roof has been solved by laying tiles on the existing roofs. This has been done in the ladies and men's hostel, for the H12, H3, H4 quarters and for the Gulati, Krishnan and Raj blocks in addition to the club house and vehicle garage. Mosquito netting has been provided for all the hostels as well as for the Gulati and Panikar blocks.

Remodelling of the PhD bay with individual workstations and locker facilities, computer tables in the MPhil Bay and renovation of the MA class room and addition of Jefferson chairs for the new renovated Theatre class room and provision of washing machines, microwave oven and cooking facilities for the students are a few highlights of the year.

Renovation of the canteen wash area, toilets in hostel annex and in Krishnan block have been carried out. Rewiring and repainting of the Panikar block and in some quarters was also done. The work on replacement of bathroom fittings is underway. The open air theatre has been renovated with new cladding for the built-in seats. Approach ways and spaces in front of the hostels have been paved with interlocking blocks. Garden and butterfly park has been fitted with water sprinklers. The construction work of an indoor badminton stadium and garages for the staff and students was also started during this year.

The computer lab in the computer centre is being refurbished as a new smart class with work stations which will have a

seating capacity for 36 students. The digital classroom will be equipped with an LED TV for presentations. The room will have a new floor and two cassette air conditioners.

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.626.22 lakh and the Indian Council of Social Science Research Rs. 340.00 lakh. The Centre earned a total income of Rs.76.36 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.327.43 lakh and Rs.200.51 lakh, respectively. The Centre's policy has been to manage its activities and operations at the minimum cost possible without compromising on essential needs and the quality of its output. The Investment Committee aimed to achieve best possible growth of the Centre's funds by investment in high-yielding and risk-free investments. The Annual Accounts are presented in Chapter X.

The faculty and non academic staff of the CDS generously contributed one day's salary amounting to a total of Rs 1 Lakh towards the Chief Minister's Relief fund for the victims of the disaster caused by the Ockhi cyclone. Prof Sunil Mani, Director handed over the cheque to the Finance Minister Dr Thomas Isaac in a function at the Government Guest House on January 1, 2018.

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

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

2

RESEARCH

This chapter provides a brief description of the studies that were done and are in progress during the year 2017-18. 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 102 studies are presented in this chapter.

(a) CULTURE AND DEVELOPMENT

Completed Studies

1. What Drives Women to attempt Suicide by Burning Themselves? Shame, Humiliation and the Patriarchal Violence of Marriage

Praveena Kodoth

By any yardstick, attempts by women to burn themselves to death with the help of kerosene or attempts to kill them through the same means constitutes a most gruesome form of violence. That it is not unfamiliar as a form of marital violence in India is undoubtedly a signal of a deep malaise in our social fabric. To explore the makings of this violence, I consider it necessary to focus on the substantive underpinnings of marital power relations or the nature of patriarchal power relations implicit in marriage which triggers marital violence. The specific form that marital violence assumes is contextual. The awareness of burning with kerosene as a potential means of suicide and the easy availability of kerosene in poor rural households are clearly important factors that fuel the use of this method by women to end their lives and its use by those who seek to murder women. Indeed that burning with kerosene is used to murder women cannot be separated from the fact that it is also used by women to commit suicide as a means of ending their misery in a marriage which then allows for the possibility of passing off the act as suicide. Fourteen women whose statements were



recorded in hospital (by Vimochana) after they suffered serious burn injuries fell into two categories - nine women tried to kill themselves and five were set on fire by their husbands. Nine women died of burns and five survived. All these women were from poor and working-class families as may be seen from the nature of their employment or that of their spouses. However, there was considerable diversity among them in term of social, cultural and demographic factors such as age, education, employment, religion and the circumstances in which they got married. Most of the women were in their 20s and 30s. A 65 years old woman had survived her second attempt at suicide, and a minor girl was among the victims. Seven women were employed at the time of the incident, two worked in garment factories, one was a tailor in a garments shop, three worked as domestic workers and one was selfemployed, stringing flowers for sale. The husbands of these women were mostly labourers but one or two were security guards, drivers or self-employed. Notably, nine of the women had 8 years or more of education and two had studied up to 5th standard. The substantive basis of marital violence in the present context cannot be probed without reference to the transformation of marriage in India in association with broader social and economic changes. Marriage as a complex of patriarchal power relations has cultural, economic and historical dimensions. As a modern patriarchal institution, marriage works through socially embedded notions of honor / virtue and shame to structure violence against women. The statements recorded by women who sustained burns bear witness to the everyday character of marital abuse, a common thread being women's sense of humiliation and loss of self worth on account of persistent verbal and physical abuse. When women trapped in abusive marriages, unable to tolerate them but also without a respectable exit, experience moments of excruciating pain from deeply felt humiliation they may be pushed off the edge. The paper is organised in eight sections. Following the introduction, I examine the honour shame complex that renders meaning to, condones and legitimises marital violence. Section three examines the transformation of marriage in India to situate the cases of burning of women

located in and around Bangalore. In five sections that follow, I examine significant themes that emerged from the narratives that help us to locate and understand the violence. These themes are allegations of infidelity by the husband, close kin marriage, own choice marriage, the shame of sexual abuse and wife murders. In the following section, I examine how the concepts of honor and shame provide a template for understanding the structuring marital violence in contemporary social contexts. I then discuss specific aspects of the social circumstances that shape women's experience of marital abuse and drive them to extreme behaviour.

Status: Written and submitted to Vimochana for an edited volume on the Campaign on Unnatural Deaths of Women in Marriage (submitted August 2017).

(b) DECENTRALISATION AND GOVERNANCE

RESEARCH PROJECTS

Ongoing Projects

2. Persisting Pollution in Periyar: The Political Ecology of Industrialisation and Limits to Environmental Governance

J. Devika, N.C. Narayanan, CTARA, IIT Mumbai and Chithira Vijayakumar (University of Oregon)

Sponsor: RULSG small grant

Pollution in Periyar River has been a long debated environment/development issue in Kerala. The persistence of the problem despite the long history of scientific studies proving the water quality deterioration/biodiversity loss; public health studies bringing out the health hazards to the local population; monitoring of water quality by the regulator (State Pollution Control Board); advocacy by global (Greenpeace)/ local environmental movements and judicial/legislative rulings by courts and the government remains a puzzle. The proposed study intends to examine the political ecology of industrialization in lower Periyar basin and limitations of



environmental governance in tackling pollution. While exploring the structural causes in the political ecology of development of the Kochi industrial area, the study will ground it in the Eloor panchayat – the hotspot of the pollution problem. It will specifically focus on the role and agency of the local self-governments to address and reverse the problem including mapping their constraints in doing so. Hence the inquiry will be transdisciplinary taking on board the local actors to pose the problem from the affected people's perspective and generate solutions in a collaborative fashion.

Status: To be published as a short monograph in a series to be initiated by the RULSG.

(c) GENDER AND DEVELOPMENT

Completed Studies

3. 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 organizational 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 organization and a religious community organization 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 simply 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: RULSG Lateral Studies Series on Kudumbashree -3

4. 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 affect 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 a 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 field work 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 of 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: In edited volume N Neetha ed., Working in other's Homes: The Specifics and Challenges of Paid Domestic Work, New Delhi: Tulika.

5. Interest Conflicts, Indian State Policy and Unauthorized Recruitment to the Middle East: the Case of Women Domestic Workers from South India

Praveena Kodoth

The recruitment of women domestic workers from South India for employment in the Middle East has been consigned to an underbelly of the recruitment industry, animated by unauthorized agents and irregular practices. Regulatory regimes that seek to control migration divert aspirants to the use of irregular and often hazardous routes. But gendered restrictions have generated fears that the state is intent upon denying women's aspirations and has bred a complex nexus between emigrant women and unauthorized agents. With considerable profits to be reaped, recruiters



are proactive in mobilizing clients even in the face of stringent controls. Unauthorized recruiters are well organized and believed to be effective hence even workers who source visas through kin or social networks seek out their assistance to comply with emigration check procedures. Despite the characterization of migration to the Middle East as 'temporary', the temporal depth of migration has structured a transnational community marked by continuous exchanges across the border and generational reproduction of ties. Specific regions in South India have strong transnational ties that condition the recruitment of domestic workers. Unauthorized recruitment may be explained better through a decentered approach that shifts the analytical focus from the state and to what escapes regulation, which allows us to examine both how regulation works and why it may fail. Domestic workers are recruited in an opaque regulatory environment marked by a tough rhetoric of protection, frequent changes in legal requirements and significant irregular mobility. Legal barriers speak directly to dominant patriarchal and nationalist logics that represent control over women's bodies as normative but there is also a tacit acceptance of unauthorized recruitment. Policy makers may be unable to ignore nationalist and ethnocentric ideologies implicit in public opinion but their interventions are not designed to comply with them either. Emigrant domestic workers are drawn from marginal sections of Indian society and have little voice in public policy debates that most concerns them. An interventionist state claims to speak 'in their interests' and 'for their protection', but in practice are domestic workers being reduced to pawns in the struggle among powerful and competing interest? Unauthorized recruitment is at least partially a legacy of a regulatory vacuum that marked the three decades following independence in 1947. While gendered controls may have expanded unauthorized brokerage since the 1980s, I argue that intensification of controls in the recent past has given impetus to a specific type of brokerage that is clandestine and poses new uncertainties for workers. India's policy of curbing the recruitment of domestic workers has been interpreted in different ways. It has been argued that state actors misrecognize the problems of domestic workers and

instead of helping to solve them may well be putting them in a more insecure position. Another view has been that a policy of restrictions serves the interests of unorganized recruiters and rent-seeking state officials. Recent interventions consolidate the grounds to believe that the state concedes regulatory 'gaps' as it is forced to negotiate the demands of multiple interest groups. This paper draws on material generated through fieldwork in the Godavari delta and Kadapa in Andhra Pradesh and Trivandrum and Malappuram districts in Kerala. In 2013, I conducted a sample survey of 500 emigrant women domestic workers (women who had returned not earlier than 2008) and interviews with domestic workers, their family members, recruiting agents and civil society activists engaged in repatriation of workers. I followed this up between 2014-17, with interviews in Trivandrum with women who had migrated prior to 1970 and / or their family members and with returnee women or family members of emigrants to probe specific cases of ongoing migration. The paper is organized in five sections. In section two, I discuss the transformation of recruitment of domestic workers in response to two sets of factors, the huge expansion of demand in the Middle East and policy changes in India. In the following section, I provide an overview of policy changes with respect to women's recruitment form India. Section four probes interest conflicts as they are expressed in the regulation of the recruitment of domestic workers to the Middle East. Section five examines recent experiences of women recruited to Kuwait and Saudi Arabia and brings into view clandestine recruitment.

Status: Volume edited by Michiel Bass. *The Migration Industry Facilitators and Brokerages in Asia*, Palgrave Pivot series.

Ongoing Studies

6. Gender Development Index: Revisiting the UNDP Approach

Udava S Mishra

The Human Development Index (HDI) has a wide recognition and outreach across governments, international



organizations and the media. Given the relevance, it is important to present a gendered-version of HDI such that developmental practitioners are able to understand how state or country rankings vary across HDI for men and women and thus are instantly motivated to focus on inherent aspects of gender equity and empowerment in the society. The proposed study will, therefore, aim to develop gender-specific HDI and gender-specific inequality-adjusted HDI for all the major Indian states for two points in time (around 2005 and 2015). The analysis will follow the broad conceptual foundations of human development with domains of income, education and health as the core of the index. However, it will present a gendered version of HDI by computing genderspecific HDI by equitably weighting the contributions of respective gender-specific HDI. Further, we also follow the spirit of inequality-adjusted HDI of UNDP but present an alternative formulation to account for gender inequality in these domains. Comparisons will also be made with other measures of gender inequalities such as the Gender Development Index and Gender Inequality Index to understand its directional associations and policy implications.

Status: Ongoing.

RESEARCH PROJECTS

Ongoing Projects

7. Gender and Migrant Breadwinning: Understanding the Specificities of Remittances from Overseas Work by 'Unskilled' Women from Kerala

Praveena Kodoth and Manmohan Agarwal

Sponsor: Kerala in the World Economy, ICSSR

Since at least the 1960s, a growing number of women from the coastal sector in southern Kerala have supported their families through care work in households and commercial establishments in the Middle East. Unskilled women's migration expanded in the 1980s even as the destinations diversified to include Singapore, Malaysia,

Israel and Italy. Over the past half a century, remittances from this segment of women migrants have enabled families to cope with uncertain livelihoods at home and also afforded a degree of social mobility. However, in all the sound and fury about overseas remittances, which the oil crisis looming large over the Middle East has only heightened, there has been little acknowledgement of the contributions made by unskilled women. This is all the more apparent because the contributions of unskilled and semi-skilled male workers have received considerable emphasis. But this is not entirely surprising because until recently women migrant workers were largely invisible on account of a combination of factors: a statistical perspective that emphasized the diminutive scale of their presence relative to male workers and a sense of gendered nationalism that made the Indian state averse to acknowledging them. Further, the Indian state has placed restrictions on migration of unskilled women to the Middle East since the 1980s, yet India has remained among the top sending countries of this segment of workers in the Middle East owing to dense social networks and a proactive informal recruiting industry. As one of the first sending countries of 'unskilled' women to the Middle East from outside the Arab region, there is a cumulative experience of how women's remittances have entered the local economy in the sending regions and shaped cultural and economic practices. In this paper, we wish to bring into analytical focus some of the specificities of women's remittances in terms of their cumulative social and economic significance to the sending families and communities. Notably, the early cohort of women emigrants was married at the time of migration but since the 1980s first-time women emigrants were drawn increasingly from widows, divorced or separated women. This corresponded to the legitimization of women's migration only on the social / demographic margins, thereby underlining both the nature of opportunity that overseas migration presents for women and its perils. By probing the qualitative dimensions of remittances, we wish to underline the salience of the social context for defining women's access to migrant



jobs as well as their ability to mobilize and control remittances. The spatial and demographic clustering of unskilled women emigrants, which sets them apart distinctly from male migrants cutting across religious categories, also underlines the cultural significance of their remittances. This clustering may be understood in terms of the history of the gendering of breadwinning in Kerala and it could throw important insights into not only how women access overseas jobs but also are able to control remittances and define their use. Our database comprises a sample survey of 200 women currently emigrant and returnees in or after 2008 and interviews with about 250 women including those who were surveyed. The sample comprises women whose overseas trajectories are very diverse including those who have traversed multiple destinations and have worked overseas for almost half a century. Using this, we propose to develop an analytical description of the significance of women's remittances starting with an analysis of the sample survey data on migration expenses, wages and remittances. This analysis will be taken further by examining the characteristics of migrants. Material from interviews will be useful in explaining clustering as well as variations in costs, wages and remittances. The specificities of women's remittances may be probed in terms of the distinct ways in which women mobilize remittances and choose to spend them as well as tensions infused by expectations emerging from their families and the local community. we would like to underline the significance of an analysis of women's remittances in terms of two contemporary developments that directly impinge on unskilled women's migration. One is the recent clampdown by the state on the migration of unskilled women migrants to the Middle East, pushing aspirants to seek illegal channels at considerable risk. Two, impending oil crisis is less likely to affect demand for care sector jobs especially in the household sector or at least take more time to do so. Perhaps it is time to take stock of the direct financial contributions made by women and to make a case for the provision of the necessary social and physical infrastructure to enable

women to access overseas jobs in conditions of greater security than is at present available to them.

Status: Ongoing

8. Preparation of a Gender Development Index

Udaya S. Mishra

Sponsor: EMERGE Research Grant from University of California San Diego

The study aims to develop gender-specific HDI and genderspecific inequality-adjusted HDI for all the major Indian states. The analysis will be performed at two points in time (around 2005 and 2015) to facilitate an inter-temporal comparison. The analysis will follow the broad conceptual foundations of human development with domains of income, education and health as the core of the index. However, it will present a gendered version of HDI by computing genderspecific HDI by equitably weighting the contributions of respective gender-specific HDI. Further, we also follow the spirit of inequality-adjusted HDI of UNDP but present an alternative formulation to account for gender inequality in these domains. Comparisons will also be made with other measures of gender inequalities such as the Gender Development Index and Gender Inequality Index to understand its directional associations and policy implications.

Status: Ongoing.

(d) HUMAN DEVELOPMENT, HEALTH AND EDUCATION

Completed Studies

9. Policies & Partnerships in Improving Social Demand for School Education in Kerala

C. Gasper

The literature on educational development speaks of many drivers of change influencing the educational outcome of the society. Among them, political commitment expressed in terms of educational policies is considered to be most



important. In the case of Kerala, the Queen of Travancore, Rani Gouri Parvati Bayi's proclamation in 1817 has the seeds for free and equitable education for all social groups. The proclamation has more relevance to the sustainable development goal (SDG4) that suggests 'ensure inclusive and equitable quality education and to promote lifelong learning opportunities for all'. Kerala thus has a long history of political commitment in terms of state policies towards making education, particularly school education freely accessible to all social groups. These policies have cemented the partnership between the teachers and the parents, teachers and students and the school and the local community committing to the cause of inclusive education. This paper using the school enrolment data from 1993 to 2013 argues that the high progress in the educational outcome of the weaker social groups in Kerala is influenced by the policies and partnerships in Kerala's education sector.

Status: Chapter in Book.

10. Financing of Medical Education

C. Gasper

This paper discusses the social implications of public funding of Graduate Medical Education drawing data from Tamilnadu budgetary papers and a sample study of students doing different disciplines of Medicines in Tamilnadu. Public funding has steadily grown in Medical Education at the rate of 17 per cent per annum. Allopathic Medicine gets top priority in resource allocation. About 90 to 95 per cent of the resources are allocated to it depriving other disciplines of Medicine such as omoeopathic, Ayurvedic, Siddha, Naturopathy and Yogic and Unani Medicines. Siddha medical education (43 per cent) grows much faster among the Indian medicines. Salary of teaching and non-teaching staff is the major item of expenditure in the case of Allopathic (about 95 per cent) and Homoeopathy (about 91 per cent). As such Medical colleges do not spent adequately on improving the quality of facilities that have direct impact on raising the quality of education. It is only the Siddha Medicine that spends high percentage of its resources (about 60 per cent) on improving its facilities and the welfare of the students.

Further, the rate of subsidization is very high for Allopathy (96 per cent). In Homeopathic medical education, the rate of subsidization is about 52 per cent only. Since the private returns are considerably high and the private demand for it continues to rise monotonically, raising the cost-recovery rate for Allopathy is needed.

Status: Chapter in a book.

11. Skill Development in Africa: Scope for India Japan Cooperation-Asia Africa Growth Corridor, Research and Information Systems

Manmohan Agarwal

Africa has witnessed significant economic growth in recent years, but its growth process is impaired by lack of skills and emigration of skilled workforce to other regions of the world. Almost half of Africa's population is below the age of 25 years, and the skill gap could change this demographic dividend into a demographic drag. As India and other Asian countries are also facing similar challenges, there is a scope for sharing experiences particularly between India and African countries with respect to human resource development. Very often, the programs run by governments in Africa to address skill gaps are plagued by slow implementation and related issues. Among Asian countries, India and Japan have considerable experience in skill development and capacity building. In the last two decades, the Indian private sector has been also engaged in skill building. Under the Asia Africa Growth Corridor, India and Japan could share their expertise in human resources in different industrial sectors with their African counterparts to develop a local skilled workforce for industrial development in Africa. Skill development programmes may include apprenticeship programs by Indian and Japanese firms operating in Africa, skill upgradation of women and disadvantaged sections by NGOs and reviving formal education system through universities in Africa, among others.

Status: Published as RIS Discussion Paper 214, 20 November, 2017.



12. Did The Millennium Development Goals Work? Meeting Future Challenges with Past Lessons

Manmohan Agarwal, Hany Besada and Leah McMillan Polonenko (eds)

With the target date for the Millennium Development Goals (MDGs) behind us, this book asks did they work? And what happens next? Arguing that to effectively look forward, we must first look back, the editors of this insightful book gather leading scholars and practitioners from a range of backgrounds and regions to provide an in-depth exploration of the MDG project and its impact.

Contributors use region-specific case studies to explore the effectiveness of the MDGs in addressing the root causes of poverty, including resource geographies, early childhood development and education, women's rights and disability rights as well as the impact of the global financial crisis and Arab Spring on MDG attainment.

Providing a critical assessment that seeks to inform future policy decisions, the book will be valuable to those working in the development community as well as to academics and students of international development, international relations and development economics.

Status: Published by Policy Press, University of Bristol 2017.

13. An Economic Analysis using 'index of relative deprivation' in Understanding Gains from Internal Migration in India

Udaya S Mishra and Pinak Sarkar (Doctoral Scholar)

The study aims at highlighting the relevance of internal migration in India and the extent to which it becomes a rewarding phenomenon for all groups of migrants. In a geographically vast country like India, given the persistent economic inequality across regions and socio-economic communities, migrants cannot be seen as homogenous entity. It is observed from the empirical analysis that internal migration, in general, is a rewarding phenomenon when compared between the individual migrants at the destination

and the non-migrants at the origin for all groups of migrants. However, in this study economic gains are not seen in terms of economic variables such as employment or wage, but rather in terms of retaining or shifting in the economic ladder or wealth quintile. Also, using the 'Index of Relative Deprivation' (RDI), it is observed that though all the heterogeneous groups' gains from migration, these gains are not proportionate across groups as the advantaged groups attain higher economic transition compared to the less advantaged groups. The advantaged and disadvantaged groups are broadly characterised on the basis of literacy (illiterate vs literate), by origin (rural vs urban), and social groups (scheduled castes, scheduled tribes, & other backward classes vs others).

Status: Manuscript under communication.

14. Public Interventions & Problem of Tobacco Use in India: A Critical Review

Udaya S. Mishra and Sanchita Mukherjee (Doctoral Scholar)

Tobacco is a widely available addictive substance. Use of tobacco products have been found to cause serious health hazards including cardiovascular diseases and various forms of cancer. The issue is of serious concern to India since it is one of the largest producer and consumer of tobacco in the world. With growing evidence of health hazards caused by tobacco, Govt. of India had enacted various tobacco control legislations, This paper in this context provides a critical review of such public interventions, as well as provides a detail account of the history to understand emergence of tobacco practices, its production and role of tobacco companies to weaken tobacco control policies in India.

Analysing production trends of tobacco in India, FCV emerges as the most grown variety, which is also exported. Andhra Pradesh, Gujarat, Karnataka and Uttar Pradesh are the main tobacco-growing states in India and ITC is Tobacco Company with highest market share. Systematic efforts to control tobacco usage in India took shape only by 2003 with the ratification of COTPA, which was to meet the WHO obligation under the FCTC treaty. This was followed by the launch of



NTCP in 2008, to further strengthen the implementation of tobacco control and enact the provisions under COTPA.

This paper concludes that though tobacco control has taken a long leap forward with introduction of various legislative steps to prohibit tobacco use across country, review of these policies shows their inadequacy not only in enforcement, but also issues related to (a) the interference of tobacco industry, (b) issues with tobacco taxation, and (c) the failure of government to rehabilitate people involved with cultivation, production and distribution of tobacco products.

Status: Manuscript under communication.

15. A Re-Assessment of Internal Migration in India: Quantum-Adjusted for Quality

Udaya S. Mishra & Pinak Sarkar (Doctoral Scholar)

The rising magnitude of internal mobility in India defines loosing and gaining regions in terms of human resource which is merely in terms of its count irrespective of characteristics. On weighing characteristics of the migrants in terms of varying feature like origin, education, reasons etc. there seems to be a more refined comparison of human resource distribution across Indian states. This analysis informs that regions with better opportunity attracts better human capital and as a consequence, the regional divide that we observe otherwise becomes more severe when quality adjusted quantum is read against the mere quantum flow of migrants.

Status: Manuscript under communication.

16. Demand for Domestic Workers in India: Its Characteristics and Correlates

Udaya S. Mishra & Shraddha Jain (Doctoral Scholar)

This paper is an attempt towards analysing the demand for domestic workers specifically in urban India, wherein we intend to verify a range of hypotheses pertaining to demand for domestic workers in urban households. The analysis exploits the information obtained in Unemployment and

Employment Survey and Consumption Expenditure Survey provided by the National Sample Survey Organisation, (NSS hereafter) to assess the significance of domestic work and to characterize the demand for domestic workers across Indian states. We supplement the discussion with insights from a micro level enquiry. While it may be otherwise be understood that rising economic affluence is the driving force behind this phenomenon, a critical inspection at the household level informs on the complex dynamic of economic affluence and rising dependency behind engagement of domestic workers in urban Indian households. A micro level inquiry conducted in the NCR unfolds greater details on the nature of demand for domestic workers in urban areas. A survey among employers reveals that employment of domestic workers has been customary for a class of population. However, other household characteristics like women's employment and life cycle of a household also shape the demand for a domestic worker. Nature of employment, broadly categorised as live-out/day work or live-in work, is also observed to be influenced by economic class and household specific needs.

Status: Manuscript under Review.

17. India's Aged: Needs and Vulnerabilities

Udaya S. Mishra and S. Irudaya Rajan (eds)

This book discusses the most vulnerable aspects of life under current conditions of economic and societal change. This volume explores (a) whether the nature of living arrangements has a bearing on the health outcomes of the elderly; (b) whether real or perceived economic dependence and financial vulnerability of the elderly is conditioned by translation of capabilities into functioning; and (c) implied healthcare costs, which are defined based on both actual needs and the elderly peoples' own perception of their needs. In addition, the volume brings together empirical explorations of prevailing realities and mechanisms that shape the well-being/ill-being of elderly in India.

Status: Book by Orient Blackswan.



18. 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: To be published.

19. 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 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 development process through decentralisation of state power and functionings constitutes an autonomous and hence ideal means of targeting and tackling development issues through cooperatives. 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: To be published.

20. 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 'normsrights 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 has 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 social interest in their cumulative collectivity.

Status: To be published.

21. Indicators of Poverty and Inequality: Unidimensional and Multidimensional

N. Vijayamohanan Pillai

This paper, as a part of a larger study on 'Measuring Development: Concepts and Methods', was presented in a National Level Seminar on "Towards Understanding Economic Development: Concepts, Methods and Problems", organised by the Department of Economics, Maharajas College, Ernakulam, on 15 December 2017. The paper starts with a discussion of the absolute and relative poverty studies in their historical contexts and in a critical light. As the former takes into account expenditure only on minimum necessary foods, it is taken as a 'fodder concept of poverty' that treats human beings on a par with cattle. The famous Bevin-Bowley confrontation on the latter's poverty line also is illustrated, as given in A. B. Atkinson (1987). Highlighting the problem of arbitrariness in the fraction-of-the-median choice in respect of the relative poverty approach, the paper chooses to criticize such choices as having resulted from an eyeballing of the income distribution data from the perspective of some more absolute notion of poverty. The critique also considers an alternative quasi-relative definition of poverty, which explicitly takes into account social preferences, in terms of the income level the average man considers unacceptable, obtained from survey responses on Gallop poll questions on 'the smallest amount of money a family of four needs to get along in this community'. The paper then moves on to the measures of incidence, distribution and intensity of poverty, with simple numerical illustrations, and critically discusses the Sen index, Foster, Greer and Thorbecke Index and the subjective poverty lines such as the Kapteyn poverty line, Leyden line and Deeleck line. The paper concludes with a critical examination of the multidimensional poverty index in its different steps of estimation along with a numerical illustration.

Status: Paper presented in a Seminar- to be published.



From Growth to Human Development, Happiness and Inclusive Wealth: Concepts, Methods and Problems

N. Vijayamohanan Pillai

This paper, as a part of a larger study on 'Measuring Development: Concepts and Methods', was presented in a National Level Seminar on "Towards Understanding Economic Development: Concepts, Methods and Problems", organised by the Department of Economics, Maharajas College, Ernakulam, on 15 December 2017. The paper starts with the "Beyond GDP" initiatives that have arisen from the awakening that the standard indicators of the quality of life are not only wealth and employment, but also the built environment, physical and mental health, education, recreation and leisure time, and social belonging. One of these initiatives has sought to measure the livability of a given city or nation, in terms of what is called Popsicle Index, a quality of life measurement as the percentage of people in a community who believe that a child in their community can safely leave their home, walk to the nearest possible shop to buy a popsicle, and walk back home. After a critical evaluation of the Physical Quality of Life Index (PQLI), an alternative measure of welfare developed by the sociologist Morris David Morris in the 1970s, the paper turns to the Capability Approach, introduced during the 1980s with the focus of poverty moving away from the narrowly defined economic welfare to more comprehensive, freedom and human well-being. The concept of human development is viewed as a process to expand freedom and choice, and poverty, as a shortfall in the fundamental capabilities of a person, indicating the degree of freedom needed to achieve valuable 'functionings.' As Sen has acknowledged, the roots of the approach go back at least to Adam Smith's analysis of 'necessities' and living conditions (in The Wealth of Nations of 1776) and Marx's concern with human freedom and emancipation (in his Economic and Philosophic Manuscripts of 1844), and indeed to Aristotle's theory of 'political distribution' and his analysis of eudaimonia - 'human flourishing' (in The Nicomachean Ethics, book I, sect. 7). After a brief evaluation of the contributions of Sen,

Nussbaum and Alkire, the paper discusses the UNDP's contributions in terms of human development index, human poverty indices, gender-related development index, and gender empowerment measure, with numerical illustrations for Kerala. The paper then discusses a number of other measures, such as Gender Parity Index (GPI) of the UNESCO, usually designed to measure the relative access to education of females and males; Social Progress Index of the Social Progress Imperative in 2013 that measures the extent to which countries provide for the social and environmental needs of their citizens; Gross National Happiness Index that measures life satisfaction, the feeling of happiness, and other happiness domains such as psychological well-being, health, time balance, community, social support, education, arts and culture, environment, governance, material wellbeing, and work; Genuine Progress Indicator, suggested to substitute or supplement GDP, and designed to take fuller account of the well-being of a nation by incorporating environmental and social factors along with economic factors; The OECD Better Life Index, designed on the recommendations of the Commission on the Measurement of Economic Performance and Social Progress, also known as the Stiglitz-Sen-Fitoussi Commission; Happy Planet Index (HPI) of the New Economics Foundation (NEF), an index of human well-being and environmental impact, weighted to give progressively higher scores to nations with lower ecological footprints; Where-to-be-born index (previously the quality-of-life index, QLI) of the Economist Intelligence Unit that measures which country will provide the best opportunities for a healthy, safe and prosperous life in the years ahead; Inclusive Wealth Index, released in 2012 during the Rio + 20 Conference, in response (according to the 2012 Inclusive Wealth Report: xv) to the need for "new indicators that tell us if we are destroying the productive base that supports our well-being"; and Inclusive Growth Indices of the ADB and the IMF, measured using the idea of maximizing a social opportunity function, similar to a social welfare function.

Status: Paper presented in a Seminar; to be published.



Ongoing Studies

23. Class Size and its Impact on School Education in Kerala

C. Gasper

The classroom-students ratio is an important indicator of educational improvement in schools. Over the years, the pattern of demand for schooling has changed very much. The demand for private education has increased tremendously, but the demand for governmental and government -aided education has decreased. Consequently, the size of the classes in the primary and secondary schools has changed significantly. The size of the classes has become very much smaller in the case of government and private aided schools and very much larger in the case of private unaided schools. This paper is based on the study of selected government, private-aided and private-unaided schools in all districts in Kerala.

Status: Ongoing.

24. Abuse and Neglect of the Elderly in India

S. Irudaya Rajan and Mala Kapoor Shankardass (Eds.)

This book highlights different aspects of the problem of elder abuse and neglect in India, and discusses its forms as well as means of prevention, intervention and management. It presents a framework for understanding the occurrence of elder abuse and neglect in India, placing the discussion within a global context. It uses data from different parts of India to describe the various dimensions of elder abuse and neglect among different population categories and sections in society. Covering rural and urban areas in different states, it discusses current perspectives on elder abuse and neglect at the household level, widows, HIV-affected populations, and those residing in institutions.

Status: Ongoing.

25. Measuring Intersectional Inequalities in Health: An Application in the Context of Institutional Delivery in India, 2004-2014

Udaya S Mishra

Methodological advancements are necessary: 1) to meaningfully quantify the magnitude of intersectional inequality 2) to understand the trends and patterns across space and time and 3) to explain the role of various determinants of intersectional inequalities. However, none of the existing methods can simultaneously account for these three aspects, particularly from a perspective of meaningful estimation and interpretation. Given such gaps, this paper engages with multilevel modelling to describe variance partitioning coefficient (VPC) as an alternative index of intersectional inequality (III). We also briefly describe certain desirable axiomatic properties of VPC to serve as an index of intersectional inequality (III).

For an empirical illustration, we describe intersectional inequalities in institutional delivery care for 12 intersectional groups cross-classified on the basis of social group (SC, ST, OBC and Others), religion (Hinduism, Muslim and Others) and place of residence (rural and urban). The analysis is based on delivery care information from the National Sample Survey of India for the years 2004 (60th round) and 2014 (71st round). We use multilevel models: a) to develop the III for 2004 and 2014, and b) to explain the contribution of socioeconomic status (particularly, income and education) in explaining the III. Further, we decompose the overall inequalities in institutional delivery in three components viz. between-intersectional-groups, within-intersectional-groups and contextual-effects. Estimates based on both IGLS and MCMC algorithms are presented for sensitivity check. Also, comparisons with group-analogue of Gini coefficient is presented.

The III ranges between 0 to 1 with higher values indicating higher inequalities between intersectional groups. Given the interpretation, the III in institutional delivery in India reduced from 0.20 (95%CI: 0.12 to 0.28) in 2004 to 0.14 (95%CI: 0.06 to 0.20) in 2014. The corresponding group-



Gini coefficients are 0.22 (95%CI: 0.21 to 0.24) in 2004 and 0.05 (95%CI: 0.05 to 0.06) in 2014. In 2004, maternal education and income status accounted for 61% of total intersectional inequalities (or between-intersectional-groups variations) but in 2014 the contribution of these factors has increased to 70%. In 2004, the total inequality in institutional delivery can be decomposed as follows: between-intersectional-groups (16.7%),intersectional-groups (70.7%) and contextual state-level effects (12.6%). The estimates for 2014 is 17.0%, 71.0% and 12.0%, respectively. In other words, about one-fifth of total inequalities in institutional delivery in India is attributable to these groupings. Similar inferences are obtained irrespective of the modelling strategy (IGLS or MCMC algorithms). The paper forwards multilevel modelling as an effective and easy alternative to measure and explain intersectional inequalities in health. The illustration presented here shows that post-NRHM there has been reductions in intersectional inequalities in institutional delivery in India. However, the share of intersectional inequalities in total inequalities has remained unchanged. Differences in wealth and education within intersectional groups account for two-thirds of these intersectional inequalities. To conclude, the approach has wide applicability and can be used for modelling binary, count or continuous health outcomes even in sample-constraint settings.

Status: Ongoing.

New Initiatives

26. Nomadism, Gathering and Trajectories of Uneven Inclusion: A Case study of Vulnerable Indigenous Communities in Kerala.

Abhilash T

The study focuses on the patterns of exclusion faced by the Particularly Vulnerable Tribals Groups (PVTG) community in Kerala with special reference to Panchayati Raj institutions. It will look into the aspects related the dispossession of historical and traditional rights enjoyed by

the PVTGs in their land by the idea of urban development which was hailed as the epitomes of states' developmental initiatives—since the days of neo-liberal economic policies in global south—and how that has affected in an abrupt expulsion and alienation of communities like PVTGs from their native environment. Last, it will explore the pattern of their exclusion—in the wake of newly designed labour laws and FRA, 2006—from the institutions for the enforcement of the rights and will also examine the reasons behind the failure of such issues to become a moral and political issue in states like Kerala, which they might gain leverage by enrolling elite interest, through pro-poor coalitions. The initial level field survey is already completed in the last year. The remaining field work and writing is remaining in this project.

Status: New Initiative.

RESEARCH PROJECTS

Completed Projects

27. A Panel Study of Migration in South India

S. Irudaya Rajan and Ganesh Sheshan (World Bank)

Sponsor: New York University

The Kerala Migration Survey (KMS) 2016 was conducted as a panel survey of KMS 2011 with 300 sub-districts (taluks) to complete a representative panel survey of households that permit us to observe changes in the socioeconomic status of a household over a 5-year horizon, which captures short-to medium-term variations in household welfare. Of the 15000 households, 13,195 households were identified and covered. The response rate for the state was 88.3 per cent. The results show that emigrants' first choice has always been to construct a very good house for their family. About 59 per cent have a luxurious or very good house for their dwelling. In the study, luxurious houses are defined as those houses with three or more bedrooms. One out of 4 emigrant households has a motor car. About 50 per cent of the emigrant households have two-wheelers.



Two-wheelers are common among females who manage the day-to-day needs of these households.

Status: To publish as research article.

Ongoing Projects

28. Relative Contributions of Adult Daughter and Sons to Elderly Parents' Care in India

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

Sponsor: SSHRC

In the absence of universal social security in old age, the expectation of old age support is one of the main factors driving strong son preference, daughter aversion and the resulting daughter elimination in India. This study focuses on Haryana and Kerala which offer contrasting socio-cultural contexts especially with regard to women's status, son preference and daughter deficit. The study focuses on care arrangements in daughter-only families in India.

Status: Ongoing.

29. Impacts of Demand-side Financing Instruments on the Continuum of Care for Maternal and Child Health in India and Bangladesh

Udaya S. Mishra and S. Irudaya Rajan

Sponsor: DBT-MRC-DFI

Having one of the highest global rates of premature deaths and poor health among pregnant women and their newborn,India and Bangladesh remain as key nations to reduce global rates of unfavourable health outcomes among women and children. Key to reducing these rates is to encourage improved coverage of health care services. Among the number of strategies used by policy-makers in both these countries - drawing on international experiences - are interventions that aim to influence women and children - particularly those from poorer households or other socially vulnerable communities – to use key health services by

providing them with direct or indirect financial incentives. In this project, we aim to investigate to what extent these incentives, either involving directly paying cash amounts or providing free services in private health facilities, are successful in improving some of the most important indicators related to improved health care services directed at pregnant women and young children. In addition, we will study the barriers impeding improved access to health services, including factors such as availability of and accessibility to health facilities; we will also consider quality of care in the health services as a potentially strong determinant of whether people choose to use the health services that are offered. The results will help us to determine how these different barriers can be reduced so that the optimum potential of these financial incentives could be attained in these two countries. Ultimately, the data gathered will allow us to identify what likely modifications in the design of these financial incentive are required, in conjunction with supportive, positive improvements in quality of care, in order to attain improved health goals for women and children.

Status: Ongoing.

(e) INDUSTRY AND TRADE

Completed Studies

30. Export Employment Conundrum in India's Manufacturing under Globalization: In search of a Strategic Approach

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

There is a growing consensus that while the strategy of growth under globalisation has enabled many of the developing countries to enter the high growth road, the returns to such growth has not been manifested in shared prosperity on account of growing inequalities at different levels. One of the underlying factors, often cited, is the observed decline in the share of labour in national income. In this context, facilitating inclusive employment opportunities have become a key strategy to increase economic growth that is inclusive



and sustainable. In the context of trade and investment liberalization and given the potential of manufacturing exports in generating employment opportunities, this paper analyses the employment generation in terms of both quality (indirect employment, female employment and skilled employment) and quantity. In order to reflect on the industries that create employment through export orientation, we identify four industrial categories; 1) Export-employment champions, 2) Export champions-employment laggards, 3) Export laggardsemployment champions and 4) Export-employment laggards. Our findings suggest that export-employment champions and export laggards-employment champions contribute to more than sixty per cent of total employment. The results suggest that employment-export champions, export laggardsemployment champions create better quality of employment as compared to total manufacturing as well other two categories. Further, our analysis of wages and profits in value-added reinforces that fact that industries, which create better quality of employment, are the ones with more equitable distribution and highlights the role of quality of employment in equitable distribution of income. The disaggregate analysis industries under the four categories revealed that bulk of the employment generated by the exportemployment champions are accounted by those industries that are conventionally known for static comparative advantage like textiles, garments, footwear and others. To the extent that these industries also generate high equality employment, any policy intervention to enhance their international competitiveness is likely to contribute towards more inclusive/equitable developmental outcomes.

Status: Completed

31. Tariffs, Efficiency Ages and Unemployment

Rajit Biswas and Kumar Shubham

The present model embeds a model of intra-industry trade into a labour market, which is characterised by efficiency wages. It is shown that tariff protection of the import-competing, home produced brands, may cause the equilibrium unemployment rate to shoot up and instead of protecting the sector may cause it to contract. This is

possible when elasticity of demand is high and firms have less market power and thus, protectionist effect of tariffs may get completely reversed.

Status: Accepted in Journal of Industry Competition and Trade.

32. Public Sector Enterprise Disinvestment in India: Efficiency Gains in a Political Context?

Ritika Jain

India instituted a programme of state enterprise disinvestment in 1991 as part of a sweeping reform initiative. This study analyses the effect of disinvestment on enterprise performance, conditioned on political context as characterized by the ideological leanings of the parties in power at state and central levels. Using stochastic frontier analysis, measures of firm efficiency are generated for 238 central public sector enterprises for the period 1991-1992 to 2010-2011. The relationship between efficiency so measured and disinvestment is then estimated using a two-stage instrumental variables approach to control for endogeneity between firm efficiency and selection for disinvestment. Initial disinvestment is associated with substantial efficiency gains, but subsequent disinvestment much less so and the proportion of shares disinvested only loosely so. This may be explained by the transformative effect of initial stock market listing on accountability and profit orientation that is not repeated with further rounds of disinvestment. The effect of disinvestment on performance is stronger if the enterprise is located in a state governed by a right-leaning party or one that is ideologically aligned with the party in power at the centre.

Status: Accepted at Journal of Asian Economics

33. 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: Accepted at Constitutional Political Economy

34. 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 10 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: Accepted at Journal of Economic Policy Reform

35. 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: Communicated to journal.

36. Parallel Imports, Product Quality and Endogenous Trading Bloc Formation

Sunandan Ghosh

This paper analyzes the inter-relationship among parallel imports (PIs), endogenous level of quality of a vertically differentiated good and endogenous trading bloc formation in a three-country world economy. A patent holder monopolist in rich country (R) produces a vertically differentiated good and exports to the poor (P) and middle-income (M) countries. Under 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. Formation of CU among P and M turns out to be globally Pareto superior given both inter and intra-country taste diversity. The optimal tariff levels imposed by P and M on imports from R are lower under PIs irrespective of the tariff regimes.

Status: Communicated to journal.



37. India-China Trade: Asymmetric Developments and Future Prospects?

Sunandan Ghosh and Manmohan Agarwal

This paper seeks to provide an overview of the evolution and analyze the changing composition of trade between India and China over the period 1983-2015. 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. Some of India's major export items fetch higher prices in China vis-à-vis the rest of the world. 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 Indo-Chinese trade. We can 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: To be communicated to journal.

Ongoing Studies

38. IPR Regime and Competitive Strategies: India in a Comparative Perspective

P.L.Beena

Although there are many empirical studies on Innovation and Intellectual Property mainly looking at the association of R&D and patents within manufacturing sector (Griliches, 1981; Arora, 2000; Arora, 2001; Kanwar and Evenson 2003; Ray and Saha, 2011; Kanwar 2012; Sunil, Chaudhuri, et al. 2013), less importance is given to capture the economic role of trademarks which is widely used by different sectors including business services and other services such as personal and professional services. The

objective of the proposed study is to fill this gap. Further, this paper try to analyse whether firms that apply for trademarks and patents and undertake R&D follow any practices of abuse of dominance and this research findings could help policymakers dealing with IPR and Competition policy.

Status: Ongoing.

39. India's Outward Foreign Direct Investment under WTO regime and Development Implications

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 consequences of OFDI on the production, exports and employment of home country i.e India. To what extent such OFDI has helped Indian manufacturing sector to strengthen technological capability. Further this paper try to understand overall investment and financing pattern of such firms.

Status: Ongoing.

40. Innovation and Public Goods

Rajit Biswas

In a model characterised by monopolistic competition and innovation, it is shown that the volume of public good may actually fall when the rate of innovation is too high. This can, in turn, lead to lower welfare along with a growth rate. It is also shown that the result crucially depends on elasticity of substitution among varieties.

Status: Ongoing, to be submitted to a journal.



41. Price Dispersion in Indian Online Market: Seller vs Product Effects

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

The current study is one of the first attempts to validate price dispersion theories such as the clearinghouse models and seller- heterogeneity models for India. Data on prices of twenty books is hand collected over a period of sixty days and measures of price dispersion is analysed at an aggregate and disaggregated level. The study confirms the existence of price dispersion in the Indian online market. Further, the Indian experience refutes the traditional clearinghouse and seller heterogeneity models. Instead, price dispersion may be attributed to a combination of distinct business strategies followed by the sellers and product characteristics.

Status: Under Review.

42. To Profit or Not to 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: Under Review for publication.

43. Enlargement Decisions of RTBs with Asymmetric Members

Sunandan Ghosh

The issue of expansion or consolidation of an existing FTA may itself depend on asymmetries within the initial member countries themselves. This paper tries to analyze the decision

of an existing bilateral FTA regarding expansion vis-à-vis consolidation (transformation into CU) when the members countries of the initial FTA are themselves asymmetric. This has been analyzed in the light of an asymmetric world, both with respect to technology and domestic market sizes. Given the case that there exists an inefficient initial member country (technology asymmetry), there will exist a clash of interest between the members while the non-member will always prefer global free trade. We find that GFT can be sustained as a SPNE only for lower degrees of production inefficiency while for higher degrees of production inefficiency customs union between the initial members can be sustained in the presence of some side payments. Given there exists a smaller initial member country (market size asymmetry), both the initial 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: To be communicated to journal.

44. The Puzzle of Mid-size firm in the organised Manufacturing Sector

Sunandan Ghosh and Vinoj Abraham

The Indian manufacturing sector is characterized by presence of large number of small and large size firms and near absence of mid-size firms. Such a phenomenon may occur due to a host of reasons including mid-size firms becoming large over time and/or small firms remain small. However, the answer is not unambiguous. It is in this context that the present study would like to shed some light into this puzzle.

Status: Ongoing.

45. Skilled-unskilled Wage-gap in Indian Manufacturing

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

Widening wage-gap between skilled and unskilled labour is a global phenomenon and has far-reaching socio-economic consequences. Economic theory, coupled with empirical



evidences, has identified international trade and skill-biased technological progress as the two main sources of skilledunskilled wage gap (Feenstra and Hanson, 1997, 2001; Krugman, 2008; Lawrence, 2008; Marjit, Beladi and Chakrabarti, 2004) along with other determinants like crossborder flows of factors of production (Chaudhuri and Banerjee, 2010; Yabuuchi and Chaudhuri, 2007) and outsourcing (Anwar, 2013) . Skilled-unskilled wage gap has not only increased in the Indian manufacturing sector, but post liberalization such wage gap has been accompanied by an increase in the share of skilled workers in total employment (Ramaswamy, 2008). For the case of Indian manufacturing sector, studies have found output, capitaloutput ratio, contract-worker intensity (Ramaswamy, 2008), increase in the demand for skilled labour due to skill upgrading within industries (Chamarbagwala2006) as important determinants of skilled-unskilled wage-gap. So far trade, in particular trade liberalization, is concerned, Sen (2008) infers that trade reforms have led to increase in relative skill intensity in Indian manufacturing and in turn a widening of wage gap between skilled and unskilled workers. However, Mehta and Hasan (2012) find that 30-66% of the increase in wage inequality is due to changes in industry wages and skill premiums that cannot be empirically linked to liberalization. In this study we would try to comprehensively analyze the pattern and determinants of skilled-unskilled wage gap in Indian manufacturing using unit level data for the period 1998-99 - 2012-13.

Status: Ongoing.

RESEARCH PROJECTS

Completed Projects

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

Beena P.L.

Sponsor: SEED Grant

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 donning 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 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 inhouse R&D and personnel to strengthen technological capability and skill formation.

Status: Completed.



47. Is there Complementarity between Aid, Trade and FDI from India?

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

Sponsor: SEED Grant

This paper examines the complementarities between India's aid, trade and investments with its major recipient countries i.e., South Asian countries. This has been done by mapping the nature of aid projects from India, OFDI projects to these recipient countries and structure and pattern of trade relations between India with the South Asian countries. The interactions between aid with trade, aid with OFDI and trade with OFDI has been further analysed. While Bhutan receives major share (75%) of aid from India, Afghanistan emerged as a second most aid recipient country. Though India is found to be the leading import and export partners of Bhutan and Nepal, Sri Lanka attracts major share of FDI from India. Further, it is observed that India has invested major share of its FDI in the sectors where India's aid has flowed. Therefore it could be argued that India's OFDI could play more of a complementary role than act as a substitute. From the analysis on the trade pattern of exports from Bangladesh to India and imports from India to Bangladesh, it is clear that there is an intra-industry trade within textile and clothing sector and this sector attracts 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. 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 growing. Similar kind of 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 related to social and economic infrastructure would have resulted in to the growth of trade and investment between India and rest of the South Asian countries. However, the implications of such growth dynamics or spillover effects of India's OFDI in the

host country in terms of employment generation, value addition and technological transfer needs to be examined which is beyond the scope of this paper.

Status: Completed

48. Pattern of International Trade through Kerala under WTO regime

P.L. Beena

Sponsor: Kerala and the World Economy, CDS

Although Kerala is historically known for trading primary goods, the trade in services such as IT, business services and medical tourism has gradually gained momentum, especially after liberalisation. Though entry into the WTO agreements especially the agreements on Trade in Goods (TIG) and Trade in Services and Investments by India with ASEAN during 2009 and 2010 has received criticisms, it is expected to have intersectoral trade-offs. It was argued that such initiatives would have an adverse impact especially on the plantation sectors, the marine products industry, textiles & garments and automobile components while contributing positive benefits to some other manufacturing sectors and services sectors (Pal and Das Gupta, 2009). Given this context, this paper intend to analyse the growth pattern of exports and imports through Kerala Ports; analyse the nature and composition of exports of principal commodities through Kerala Ports; analyse the shift in the structure and direction of exports through Kerala Ports. The analysis is based on the port-specific data for the period 2001 to 2017 as state level trade data are not available from DGCIS.

Thus the study observed that the share of top ten export destination of Cochin sea port is significantly declined to the level of 58 per cent during 2017 from the share of 72 per cent during 2001. This indicates that there is a trade diversification among exports that took place through Kerala. USA still continued to be one of the largest export partners accounting almost 18 per cent of the total exports that took place through Cochin Sea port as on 2017. UAE has emerged as second most export partners of Kerala accounting for almost 11 per cent of the total exports. Russia has



disappeared from the top ten destination list while Korea and Singapore have emerged as kerala's export partners. UAE found to be the major destination of Kerala exports through Cochin SEZs which accounted for 95 per cent of total exports. 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 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 ports. 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 sea ports. However, the export pattern of commodity composition as on 2017 is skewed towards low value added items such as 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. These observations will not only have strong implications for improving the Kerala's participation in international trade but it may also throw some light on the nature of industrialisation of the state.

Status: Completed.

New Initiatives

49. IPR Regime and Indian Industrial Development

Beena P.L. and Siddik Rabiyath (University of Kerala)

Sponsor: Funded by Inter University Centre on Alternative Economics (IUCAE), 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 market. However Ronald Coase asked a basic question that if market forces can facilitate the growth process then why there a firm exist 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 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 play 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 are determined through different institutional framework. Generally such institutional safeguards often missed from the economic analysis of the industry. We argue that the legal and extralegal institutions are precursor of having economic production and exchange. For instance, the role of intellectual property right in terms of patent, trademark, trade secrets etc to make a firm or industry competitive in the market environment is by and large an institutionally guarded process. 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 current project proposes to study the developmental implications of Indian industries through the Intellectual Property Rights institutions.

Status: Ongoing

(f) INNOVATION AND TECHNOLOGY

Completed Studies

50. Mode of Interaction, Technological Learning and Regional Inequality: China's Experience during 1990-2015

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

This article contributes to two issues related to the literature on innovation system; the role of STI and DUI mode of interaction in technological learning and the bearing of learning and innovation on inter-regional inequality in a large



developing country. By analyzing the mode of interaction and nature of technological learning at different phases in the evolution of the innovation system, the study offers additional insights on these two issues while addressing the issue of endogeneity by using System-GMM method. The study presents empirical evidence to support the role of STI and DUI mode of interaction towards building technological learning and the role of institutions therein. It also argues that the relative role of STI and DUI mode of interaction would be different at the different stages in the evolution of the innovation system and the learning outcomes would be contingent on the mode of interaction and the stage of evolution. Relatively weak STI mode of interaction with a strong DUI mode of interaction during the early phase resulted in lower levels of technological learning capability that coincided with increasing inter-regional inequality. Nevertheless, during the developmental phase, strong STI mode complemented by DUI mode contributed to higher levels of technological learning and found associated with a trend reversal in inter-regional inequalities.

Status: Journal Article planned.

51. 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) is 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: Accepted at International Journal of Technological Learning, Innovation and Development.

52. Robot Apocalypse, Does it matter for India's Manufacturing Industry

Sunil Mani

The initiation of Make in India programme is yet another statement of the desire of the government to increase employment in the country through the manufacturing route. Under this programme, the manufacturing sector is expected to contribute to at least a quarter of India's GDP by 2020. However, recent events and discussions have brought to the fore the pessimism that not much employment possibilities emanate from the sector due to the capitalintensive nature of the manufacturing sector which it had become for quite some time now. The worst fears on this issue have been accentuated with the increasing automation of manufacturing processes elsewhere in the world. Industrial automation is thought to have a deleterious effect on the creation of employment in different sectors of the economy. manufacturing included. This has given rise to an important debate, primarily in the context of developed countries where industrial automation has diffused manifold and that too over a much longer period of time. This debate, although originally in the popular press has now been brought to the formal academic table by the publication and influential and highly cited piece of research by Frey and Osborne (2013). Subsequently, one of the leading academic journals, namely the Journal of Economic Perspectives, organised a symposium on the theme 'automation and labour markets' in its summer of 2015 issue¹. Thereafter there has been a

^{1.} See symposium on 'automation and labor markets', Journal of Economic Perspectives, Vol. 29, Number 3, Summer, 2015, https://www.aeaweb.org/issues/381. The three papers in the symposium are Autor, David H (2015), Mokyr, Vickers, Ziebarth (2015), and Pratt, Gill (2015) (accessed August 24, 2017).



series of studies by academic economists and multilateral institutions such as the OECD as well². In the context, the purpose of the study is to understand the extent of diffusion of automation technologies in Indian manufacturing and then analyse its effects on manufacturing employment.

A range of technologies are involved in industrial automation which manifest itself as both hardware and software. Employment implications of these various automation technologies vary considerably. The specific automation technology that has the most direct impact on employment is the use of multipurpose industrial robots. The International Federation of Robotics—IFR for short—defines an industrial robot as "an automatically controlled, reprogrammable, and multipurpose [machine]" (IFR, 2014). That is, industrial robots are fully autonomous machines that do not need a human operator and that can be programmed to perform several manual tasks such as welding, painting, assembling, handling materials, or packaging. Most other types of automation technologies require a human operator, such as for instance a machine tool, programmable controllers or a CAD equipment. Robots can also perform reliably and consistently in harsh and constrained environments in which a human worker cannot function satisfactorily. Robots therefore represent about the most advanced and flexible form of industrial automation that can be envisioned. So, in the present study, we focus on industrial robots. In addition to industrial robots, there are service robots as well. There are two concepts of industrial robots: delivered (flow) and operational stock (stock). Since we are interested in employment implications- our focus is on operational stock of industrial robots in Indian manufacturing. So the concept of industrial automation used is the use of multipurpose industrial robots in manufacturing. Between the stock and flows, our discussion is largely in terms of operational stock of multipurpose industrial robots, as this should give us a more accurate picture on employment implications.

In recent years, there has been a revival of concerns that automation and digitalisation might, after all, result in a

jobless future. The debate has been fuelled by studies for the US and Europe arguing that a substantial share of jobs is at "risk of computerisation". These studies follow an occupation-based approach proposed by Frey and Osborne (2013), i.e. they assume that whole occupations rather than single job-tasks are automated by technology. It is argued that this might lead to an overestimation of job automatability, as occupations labelled as high-risk occupations often still contain a substantial share of tasks that are hard to automate. There are essentially a number of reasons as to why an understanding of the relationship between automation and employment is important in the India context. These are:

- Worldwide there has been an increasing concern or fear on the effect of automation on employment. An extension of the earlier Frey and Osborne (2013, 2017) study on India showed that a whopping 69 per cent of the jobs in India are considered to be automatable.
- Four industries, such as computers and electronic products, electrical equipment, appliances and components, transportation equipment and machinery are the four industries that are most prone to automation. In many countries including that of India these four industries, and especially the transportation equipment industry has been given much emphasis in the industrialization strategy.
- Automation potential is concentrated in countries with largest population or high wages- India, therefore, is a good candidate, even though currently it is considered to be a low wage country.
- India's recent policy is in terms of raising employment through promoting growth of the manufacturing industry, but hitherto the scenario has been a steady decline in the labour intensity of manufacturing employment (Sen and Das, 2014).
- Most recent data from India's labour bureau showed that there was an absolute decline in employment during the period 2013–14 to 2015–16, perhapshappening for the first time in independent India.

^{2.} See Acemoglou and Restrepo, (2017), Autor (2015), Brynjolfsson and McAfee (2014), Chang, Rynhart, and Huynh (2016), Hallward-Driemeier and Nayyar (2018).



Further, it showed that the construction, manufacturing and information technology/business process outsourcing sectors fared the worst over this period (Abraham, 2017).

All these issues motivate us to understand the process of automation that is taking place in Indian manufacturing and its potential and actual effects on manufacturing employment.

The rate of diffusion of automation technologies is likely to increase in the manufacturing sector in the near future. The following factors highlight the significance of the study:

- First, a late manufacturing country such as India can skip stages and start with the latest manufacturing technologies.
- Second, with increasing globalization and with increasing pressure on manufacturing companies to be more productive and thereby competitive internationally, the pressure on adopting productivityenhancing technologies are much more now than ever before. According to estimates by Boston Consulting Group (2015), use of robots can decrease labour costs by as much as 16 per cent.
- Third, developments in artificial intelligence and machine learning the nature of tasks that machines can do have seen a quantum jump. For instance, industrial robots are now much more intelligent and can perform a wide variety of operations which earlier they could not do.
- Fourth, the declining cost of automation and their increasing supply is still another factor that can hasten the rate of diffusion. Again according to Boston Consulting Group (2015), the average price of industrial robotic systems has declined from US \$ 182000 in 2005 to US \$ 133000 in 2014 (Sirkin, Zinser, Rose, 2015).

India has been trying to increase employment through the manufacturing route. But the capital intensity of its manufacturing sector has been showing a steady increase. Employing a comprehensive dataset from the International

Federation of Robotics, the study analyses the nature and extent of diffusion industrial robots in Indian manufacturing industry. Instead of an occupation-based approach, the study uses a task-based one, which presents a more accurate picture of the effect of automation on manufacturing employment. The study shows that the operational stock of industrial robots in manufacturing industry has been showing a systematic increase with the density of robots in the manufacturing sector increasing from less than one per 10000 manufacturing employment to almost 10 in 2016. Most of the robot use is confined to the automotive industry and within it, the application area of welding. Further, within welding itThis task is supposed to be very human unfriendly and so the diffusion of industrial robots does not appear to be having a deleterious effect on manufacturing employment. However, with significant developments in Artificial Intelligence (AI), robots are becoming more flexible and this may lead to automation of a number of tasks, which were previously thought to be non-automatable.

Status: Already brought out as a CDS Working Paper No: 474. The paper is now under consideration by an academic journal.

Ongoing Studies

53. State Ownership and the Relationship between Corporate Social Responsibility and Research and Development Spending: The Case of India

Ritika Jain

The current study explores if there is a bidirectional relationship between corporate social responsibility (CSR) and innovation and if this relationship is affected by ownership of a firm. Since CSR mirrors, the objective of the government and innovation has selected public good properties, presence of state ownership will affect CSR, research and development (R&D) expenses and the relationship between these two activities. The study draws firm-level data on two Indian industry groups spanning from a period of 2011 to 2016 and uses propensity score matching method and seemingly unrelated regression with



a difference-in-difference approach. The results suggest that CSR and R&D affect each other positively and the effect is stronger for public firms. The study also tests the effect of a policy action in 2013 that shifted the CSR practice from a voluntary to a mandated regime. The results suggest that the policy has increased CSR expenditure for private firms in the mandatory regime whereas R&D has remained unaffected.

Status: Yet to send to a journal.

54. The Diffusion of a Cashless Economy in India, Its Trends and Challenges

Sunil Mani

India has gone through a much discussed policy of demonetizing two of its specified bank notes, which accounted for over 86 per cent of her currency in circulation. Although the initial objective of the policy was stated to be dealing with fake Indian currency notes and reducing unaccounted income, halfway through the implementation of this much-discussed policy, government's objective shifted to moving the economy to a cashless one supposedly for preventing tax evasion and corruption both of which are the main conduit for the emergence and sustenance of unaccounted incomes. Further, the government is hoping to create an elaborate digital payment system. In the context, the purpose of the paper is to first verify the hypothesis whether low cash to GDP ratio is positively correlated with a low unaccounted income to GDP ratio, as this is the basic rationale for moving to a cashless economy. Second, the study surveys, in a detailed manner the diffusion of a cashless economy and the factors affecting the diffusion of a cashless payment system in the country. These factors can broadly be classified into software and hardware related issues. Software related issues include whether a household has a bank account, has the necessary digital literacy to operate digital payment systems. Prominent hardware related is whether a household has a smartphone or a computer and has access to broadband and the speed of the broad and quality of connections etc. Finally, the paper also assesses the latent negative implications of the move to increased cost of simple transactions, cyber-crime,

unintended negative consequences on employment of hasty automation of financial payments, and haphazard importation of electronic hardware for establishing a digital payment system and its effect on other programmes of the government such as the "Make in India Programme".

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

The two major sources of black money creation are political corruption and tax evasion. Both these are not affected by demonetization *per se*. The fact that over 80 per cent of the Specified Bank Notes of Rs 500 and Rs 1000 have since been surrendered to the banking system clearly shows that the people who were holding these currency notes are capable of explaining to the tax authorities its source³. In



other words, there is very little black money in the system in terms of cash holding.

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

- Adhoc, unstructured and piecemeal- rules have been changed about 60 times since November 8, 20176.
- Iterative and hence not surgical- proximate aim has now changed from the twin objectives to evolving a cashless economy in the shortest possible time even when the necessary and sufficient conditions for such a move is not in place

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

However what is most striking is the fact that the policy which has caused too much of inconvenience to an average citizen as India is largely a cash-based economy has evoked very little negative response from anywhere in the country. In fact, this has been proven again in the state-level election results in one of India's largest states, Uttar Pradesh.

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

In short moving to a cashless economy need not necessarily reduce the size of an underground or black economy. We have used the measure of underground or black money developed by Schneider (2016). His approach to measuring the size of the underground economy is based on a variety of monetary and labour market indicators, including the labour force participation rates, the quality of public delivery, and other indicators. However, the definition is a narrow one as it does not include illegal or non-market activities. It

only captures all, otherwise, legal activities that are concealed from authorities to avoid various types of taxes (income, sales, Value Added, social security contributions etc). In other words, the Schneider methodology tends to underestimate the extent of black money in an economy.

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

Cashless modes of payment are very many. However the most frequently used ones is the use of a debit or credit card at a Point of Sale (POS), online transfer of cash from one bank account to a beneficiary's account, either through the National Electronic Fund Transfer (NEFT) or the Real Time Gross Settlement (RTGS) facility. However, their overall growth rate in terms of both volume and value has been on a declining trend since 2012-13. Demonetization seems to have increased the probability of using cashless modes of payment, as cash was scarce. However, paradoxically after an initial spurt in cashless modes of payment, that too immediately after demonetization, people have turned themselves back to cash for payments.

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



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

The physical infrastructure for cashless payments is not in place in an optimal manner. The first aspect of this is the access to broadband Internet, which is the fundamental requirement. Most Indians who are Internet subscribers are narrow band subscribers (characterized by very low speeds). As per estimates by TRAI, there were, as at the end of April 2017, only a total of about 277 million broadband subscribers in the country (Telecom Regulatory Authority of India, 2017). Over 94 per cent of them access it through a mobile device while only about 6 per cent of do it through fixed Internet. Further, India has of the lowest broadband speeds in the world (Akamai, 2017). All these make cashless payments a difficult proposition.

The second aspect is the availability of Point of Sale (PoS) machines. According to RBI, the total number of PoS machines in the country increased by around just 3 per cent from 2.53 million on March 31, 2017 to 2.61 million on April 30, 2017 (Reserve Bank of India, 2017). But according to industry sources not more than a million merchants actually accept card payments. This means that the country will have to import and install a large number of PoS machines within a short period of time for the installation base of PoS machines to be raised Typically, a point of sale (PoS) machine costs Rs 8,000-12,000, which could cost less after the waiver on excise duty and special additional duty on all components used in their manufacture. But banks must still bear the operational costs, including

merchant discount rate (MDR) which they cannot collect for now. MDR is a commission charged by acquiring banks to the merchant for every transaction on its card machine. A bank typically earns an MDR of 0.75% for transactions up to Rs2,000 and 1% for those above Rs 2,000. Large-scale imports of PoS machines and that too within a short period of time has another unintended consequence as well. It can add to the burgeoning import bill for electronic products thus denting the policy on "Make in India". The volume of credit and debit card usage at PoS have not shown any increase over the recent months when cash is in short supply. But cyber crimes involving credit and debit card frauds have been increasing as well, and this may act as a deterrent to a faster diffusion of various cashless modes.

Status: To be published as a journal article after completion.

55. Emerging Technology, State and National Innovation Capability: An International Comparative Analysis based on Artificial Intelligence (AI) and Robotics and Autonomous Systems

Sunil Mani, Yasushi Hara, École des hautesétudes en sciences Sociales (EHESS), Center for French-Japanese Advanced Studies in Paris (CEAFJP)

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

In addition, from the Industrial Revolution, some new technologies change the behaviour of production system and the productivity, and it turn into General Purpose Technology (Helpman, 1995). In this sense, diffusion of emerging technology is not only important to enhance economic capability in nation level and firm level, but it had



also to confront with path-dependency of the technology and stickiness of the legacy technology.

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

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

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

these emerging technologies.

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

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

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

Status: Ongoing.

New Initiatives

56. Diffusion of Industrial robots and manufacturing employment, An international comparative analysis

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

The total worldwide stock of operational industrial robots at the end of 2016 was in the range of 1828000 to 2160000 units. Country-wise distribution shows that China had the highest stock volume of 340000 in 2016- registering a growth rate of 33 per cent in 2015. China alone now



accounts for 19 per cent of the global operational stock and those displacing Japan as the country having the largest operational stock. Further, the operational stock of all other Asian countries excluding China and Japan has been continuously increasing. The reason for the strong increase in other Asian countries was the considerable rise in robot installations in Korea and the ASEAN countries. proposed study will work out the density of robots in manufacturing per unit of manufacturing employment across a range of countries by focusing more on the Asian countries which together account for a lion share of total robotic installations. The study will particularly focus on the details of robot densities by analysing the industries and tasks within industries for which robots are used. This will help us to understand the extent to which automation through industrial robots are displacing human labour across the various Asian countries. Further the analysis will also help us to understand the key determinants of robotic installations. Such an understanding will help us to make a reasonable prediction of the degree to which diffusion of robots may have any effect on manufacturing employment.

Status: Publication as Working Paper and then a journal article.

(g) LABOUR, EMPLOYMENT AND SOCIAL SECURITY

Completed Studies

57. Using Partnerships for Effective and Efficient Delivery of Employment Services and Active Labour Market Policies: The Case of India

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

The relevance and performance of the National Employment Service (NES) of the Government of India, designed to mitigate labour market mismatches, enhance skills and increase employment opportunities, had been waning over the years. In this context this study reviews the emerging structure of employment services in India, with a specific focus on the nature, role and outcomes of partnerships in delivering employment services and active labour market policies. The NES is currently undergoing dramatic changes in its structure. In this revamped employment service set-up, partnerships between the public and private sectors play a key role. This study, after delineating the background for the establishment of the refashioned NES through the National Career Service (NCS), traces the nature of partnerships that are evolving and the lessons learnt.

In 2014 the NCS was launched to revamp the NES. The NCS aims at delivering employment service and active labour market policies (ALMPs) through multiple channels. Its focus is to enhance skills and employability along with labour market matching. At its core is the web-based NCS portal catering to multiple stakeholders, including job seekers, employers, skill trainers, counsellors and local service providers. The NCS has entered into partnerships with a number of private and public sector entities in delivering services through its portal. The public sector partnerships are largely with the state governments, who administer the career centres (including the erstwhile employment exchanges), and other parallel ministries who are engaged in skill training and related services. The partnerships with private sector are strategic ones whereby both the partners would share information on vacancies and job seekers. The portal also provides space for private partners to register candidates for skill training, counselling and selfemployment. Further, it has entered into partnerships with Non-Governmental Organisations (NGOs) and the private sector with the aim of reaching the unconnected in the rural areas. Evidences such as the jump in the number of registrants, vacancies notified and skill training undergone show that the partnerships have been successful so far. Another highlight is the NCS's partnership with private institutions and state governments in establishing state-ofthe-art Model Career Centres (MCCs). This study reviews seven case studies of good practices in partnerships in delivering employment services and ALMPs. Drawn from



across the country, these case studies examine distinct partnership mechanisms and their outcomes.

Status: Appeared as a working paper for ILO and also being send to a journal for publication.

58. Declining Wage Share in India's Organised Manufacturing Sector: Trends, Patterns and Determinants

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

This paper analyses this persistent decline in the labour share in India's organised manufacturing sector. First, we undertake an examination of the trends and patterns in factor payments in the organised manufacturing sector. Second, we examine the extent of decline in wage share and identify the sources of this drop. Third, we look into the factors that explain the change in wage share. For this study, we have used the Annual Survey of Industries (ASI), including both the unit level data and the aggregate data. During the period 1980-2012 the share of total emoluments to workers declined from 51.1 percent to 27.9 percent and the share of wages declined from 33 percent to 13 percent. Correspondingly, there has been a steady increase of the profit share in GVA. The drop in emoluments share during the period was experienced in almost all major states, the exceptions being Kerala and Haryana. Further, the decrease in emoluments share is associated with the size of the establishments, with very large establishments recording the greatest decline in wage and emoluments share in GVA.

A shift share analysis of the decline in wage share showed that the change is primarily explained by the shift component, i.e. an overwhelmingly large component of the drop was due to changes in intra-industry variations in wage share in GVA rather than inter-industry variations. Looking at the factors that affect wage share within an industry, it can be noted that increasing flexibility in the labour market is the key factor behind this decline in wage share. Flexibility in the labour market has been engendered by various types of

substitutions of labour in the production process. This has occurred not only through substitution of other factors but also by changing the composition of labour. These measures include substitution of contract workers for permanent employees, substitution of workers with work hours, substitution of women for men as permanent workers, substitution of capital for labour and substitution of technology for less-skilled labour. Thus the declining share of wages and emoluments in the organised sector may be viewed as an indication of rising forms of flexibility in the labour market, in terms of different types of employment.

Status: ILO Asia-Pacific Working Paper Series, DWT for South Asia and Country Office for India http://www.ilo.org/newdelhi/whatwedo/publications/WCMS_614777/lang—en/index.htm

Ongoing Studies

59. Long Run Employment Growth in India: Is it Jobless Growth or Structural Transformation

Vinoj Abraham

Employment growth in India had been by and large stagnant through out the last quarter century hovering around one percent since 1993-94. This stagnation in employment growth has occurred simultaneously with a remarkable longrun growth in GDP ranging within 5 to 7 percent, encouraging scholars to identify this period as one of 'jobless growth'. While it is indeed the case that economic growth is not accompanied by employment growth, the causes for such a stagnation in employment growth is an open question. The key arguments made on the causes for 'jobless growth' in India has been that there is substantial change in production technology, shifting towards capital intensive production within sectors and intersectoral variations in growth. The second rung of arguments on why such capital-biased or sector biased growth occurs is further then associated with economic liberalisation, often to trade liberalisation and declining relative cost of capital to labour. Yet, it may be possible to argue that jobless growth is a spin-off of the



structural transformation that India is undergoing currently.

Status: CDS working paper and a journal of repute after completion.

New Initiatives

60. Transforming Rural Households in India

Vinoj Abraham

Indian economy has witnessed a structural transformation wherein the contribution of agriculture sector in long-term economic growth has consistently declined for the last three decades, while that of service sector has been rising. Moreover, the agricultural sector, with the second generation problems of green revolution and global market integration, has been experiencing the twin problem of productivity stagnation and price instability. Yet, the rural economy has been undergoing gradual changes, with rural markets, both for output and inputs deepening, rural infrastructure becoming thicker, with increasing electrification, deeper penetration of mobile telephony and enhanced road networks. A key outcome of the ongoing changes in the rural sector had been the shift in the population dependent on agriculture. Studies have noted that the employment structure in rural India has started showing signs of diversification towards non-agricultural sector. Studies have also looked into the factors that trigger a shift from agriculture sector. However, it is not very clear what kind of a transformation is this bringing to the rural household. This paper looks into this change that rural households have undergone during the period 1993-94 to 2011-12. The key questions that I seek answers are: Who moves from agriculture? And to what activity? Who stays put? These questions are analysed keeping the household as the unit of analysis. In analyzing the questions posed above, it is hoped that some of the key dimensions of changes that are occurring within rural households may come to the fore.

Status: New initiative.

RESEARCH PROJECTS

Completed Projects

61. Stagnant Employment Growth in India: Last Three Years may have been the Worst

Vinoj Abraham

Sponsor: CDS Seed money for faculty

Since 2011-12 there had been no NSS surveys to understand the employment trends in the country. In this context much speculation had been making rounds on the employment growth in India. This paper tries to fill in this gap using alternate datasets. Using the Labour Bureau's Employment-Unemployment surveys and quick employment surveys this paper shows that Employment growth in India slowed down drastically during the period 2012 to 2016. There was an absolute decline in employment by about 3.7 million jobs during the period 2013-14 to 2015-16, perhaps happening for the first time in independent India. The construction, manufacturing and information technology/ business process outsourcing sectors fared the worst over this period. The decline had been much sharper. Analysis of GVA growth and employment growth shows that the slowdown in employment growth is in response to the slowdown in GVA growth itself. Immediate measures to reverse the trend should include enhancing growth of GVA in the economy.

Status: Published in Economic and Political Weekly.

Ongoing Projects

62. Kerala's Labour Market: Emerging Trends and Patterns

Vinoj Abraham

Sponsor: CDS through Kerala the World Economy Project

Kerala has been witnessing a dramatic change in its economic structure and growth since the late 1980s. The contribution of agriculture sector in Gross State Domestic Product had declined while that of the industrial sector had



been stagnant. The service sector had boomed during the same period. The sources of income for the economy had also been increasingly dependent on remittances from the international migrants. This new growth trajectory has been enabled, not so much by reinvigorating productivity and growth in the traditional economic sectors, but through the emergence and evolution of a few industries, hitherto new to Kerala. These new engines of growth is generating an unconventional structural change in the economy, emphasizing service sector growth such as Real Estate, Tourism and Business Services including Banking and Information Technology sector etc.

The emergence of new sectors of growth has ushered in substantial changes in the labour market as well. The traditional types of employment and livelihood, dependent on agriculture and agro-based industries such as cashew, coconut and plantations is receding while newer types, catering to the new and growing sectors mentioned above are emerging. Kerala's labour market has been changing as well. The labour force participation rates had been declining for both men and women. The levels of education and skills have enhanced compared to the past. High unemployment rates persist, but skill composition of such unemployment have changed.

The emerging labour market has also brought along with changes in the labour arrangements in the State. In the context of globalisation, the emergence of new forms of labour is widely observed in rural and semi-urban areas as well. Regular permanent employment is becoming outdated while flexible forms of work are emerging. Multiple occupations and multiple sources of livelihood are becoming more prominent. Moreover, the presence of such new labour arrangements in the new sectors has been mimicked in the traditional sectors as well.

In this context, it is worthwhile to draw a detailed picture of the emerging labour market in Kerala. The specific questions that we seek answers for the following. What are the emerging sectors of employment in Kerala? What are the waning sectors of employment in Kerala? What are the changes in the nature and types of employment in Kerala How far the changes in the

employment structure in Kerala can be attributed to Kerala's increasing linkages with the global economy?

Status: Ongoing CDS working paper and a journal of repute after completion.

(h) MACROECONOMIC PERFORMANCE

Completed Studies

63. An Empirical Investigation of Determinants of C/A Performance in India: Role of Crude Oil Imports, Financial Development and Fiscal Balance and Lessons from an Emerging Economy

Hrushikesh Mallick, Manoranjan Sahoo, (HSS, IIT Madras) Mantu Kumar Mahalik (NIT Rourkela), Stelios Bekiros (Vill La Fonte, Italy)

We explore the impact of crude oil imports on India's current account balance (CAB) along with incorporation of other key determinants in the current account model. Utilising the recently developed cointegration approaches, the study established a long-run association ship among the variables. However, contrary to the general theoretical expectation, the findings revealed that crude oil import significantly improves the current account balance in the long-run, although it has an adverse impact in the short-run. Furthermore, the fiscal balance and financial deepening significantly improve the current account performance, whereas real exchange rate, trade openness and age dependency cause deterioration in the long-run.

Status: Currently working on the reviewer's comment received from "The Energy".

64. "Is Skewed Income Distribution Good for Environmental Quality? A Comparative Analysis among Selected BRICS Countries"

Mantu Kumar Mahalik (NIT Rourkela), Hrushikesh Mallick, Hemachandra Padhan (NIT Rourkela), Bhagaban Sahoo (Anandapur College, Odisha)



By using annual data for the period 1980-2013, this study examines whether income inequality deteriorates environmental quality for the selected BRICS countries (Brazil, India, China and South Africa) by endogenizing the patterns of primary energy consumption (coal use & petroleum use), total primary energy consumption, economic growth, and urbanization as key determining factors in ${\rm CO_2}$ emission function. After confirming the existence of cointegration in the inequality model, the long run results revealed that the income inequality increases ${\rm CO_2}$ emissions for Brazil, India and China, while the same factor reduces ${\rm CO_2}$ emissions for South Africa.

Status: Submitted the revised work to "Environmental Science and Pollution Research".

65. Is Globalization Detrimental to Financial Development? Further Evidence from a very Large Emerging Economy with Significant Orientation Towards Policies

Hrushikesh Mallick, Muhammad Shahbaza (Montpelier Business School), Mantu Kumar Mahalik (NIT Rourkela) and Shawkat Hammoudeha (LeBow College of Business)

This study attempts to explore the relationship between globalization and financial development for India during the period from 1971–2013. Providing the evidence of cointegration among the variables, the long-run and short-run estimates respectively, suggest that globalization in its all forms (political, social and economic) and its overall measure as well as inflation are detrimental to financial development, while economic growth and population density both promote financial development. Furthermore, the results also point out that institutional quality is not conducive to financial development in India, and there exists a feedback effect between financial development and inflation. Moreover, financial development is influenced by economic growth, institutional quality and population density.

Status: Published in *Applied Economics*. Vol. 50(6), 2018.

66. Determinants of Workers' Remittances into Developing Asian Economies

Hrushikesh Mallick

We explore the key motives of migrant workers' remittances from abroad for 11 major Asian migrant-sending countries. Using panel regressions, we find that relative higher growth rate, interest rate and capital market returns of home over the host, investment, financial deepening at home have significant impact on remittance inflows into Asia, along with higher per capita incomes and international crude oil prices. With incorporation of per capita incomes and lagged impact of remittances, we observe an emergence of consumption motives to remit. Therefore, we conclude that both investment and altruistic motives are the driving forces for remittances inflows into the Asian economies.

Status: Published in *The World Economy*, Vol. 40 (12) (2017), pp. 2875–2900.

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

Hrushikesh Mallick, Mantu Kumar Mahalik (NIT, Rourkela), 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: Accepted and in the press with the *Energy Economics*.



68. Monetary Policy: Its Changing Objectives, Instruments and Results

Manmohan Agarwal and Irfan Shah (Research Scholar)

This paper seeks to examine how the objectives of monetary policy have changed over the years from one of supporting public investment to one of inflation control and still later to inflation targeting. It then goes on to analyse how the conduct of monetary policy has changed as the objectives have changed. Finally, we study the effect of these changes in monetary policy regimes on outcomes, growth and inflation.

Status: RIS Discussion Paper 212, 17 November, 2017.

69. Inflation in India

M.Parameswaran and Pulapre Balakrishnan

In mainstream macro-economics inflation is related to the 'output gap', defined as the deviation of output from its 'natural' level (*Romer 2012*). This view of inflation has been adopted by the leading central banks globally including India's (*RBI 2014*). It undergirds 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 embodying a specific understanding of what drives the inflationary process here. We then estimate both the models across different periods and data frequencies. The results bear significance for the control of inflation in India.

Status: First as CDS working paper and then journal article.

70. Regime dependent effects of uncertainty on inflation and output growth: evidence from the United Kingdom and the United States

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

Employing a bivariate regime switching model, this paper attempts to examine the regime dependent effects of inflation uncertainty and output growth uncertainty on inflation and output growth. Using monthly data of the United Kingdom and the United States, we provide evidence that both nominal and real uncertainty exert regime dependent impacts on inflation. Furthermore, in case of both the countries, inflation uncertainty has adverse impact on output growth mainly during the period of economic contraction. Also, for these two countries, it can be argued that higher real uncertainty significantly reduces output growth only in their respective low output growth regimes.

Status: Published in Scottish Journal of Political Economy. January 2018.

71. Foreign Direct Investment and Poverty Reduction: India in Regional Context

Manmohan Agarwal, Pragya Atri and Srikanta Kundu

It is widely proclaimed that capital account liberalization would immensely benefit developing economies because once capital controls are lifted, developing economies create a potential for movement of capital. And, this free movement of capital could possibly increase growth thereby lifting millions out of poverty. India has been gradually liberalizing since the 1980s and throughout more capital inflows were observed compared to outflows. Also, the composition of capital flows has been changing since the 1980s-with Foreign Direct Investment (FDI) inflows rising steadily post-1991 compared to portfolio and debt flows. However, since 2000, FDI outflows from India were also witnessed. In this paper we empirically test the impact of FDI flows on poverty in India for 1980-2011. To provide a correct perspective to India's performance we also analyze the link between FDI flows and poverty for SAARC countries. For a better understanding of how FDI flows impact poverty, we analyze the outflows and inflows separately. The results show both similarities and contrasts in the behaviour of India in comparison with the other SAARC countries.

Status: Published in *South Asia Economic Journal* Vol. 18(2), Page 135-157.



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

Sunandan Ghosh and Srikanta Kundu

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: Communicated to Journal.

73. Conceptualizing and Measuring Inclusive Growth

N. Vijayamohanan Pillai

As any other development concept, 'inclusive growth' also eludes consensus in its definition, though there is a general underlying reference to 'growth with equal opportunities in economic, social and institutional dimensions'. Equal opportunities require diminishing and finally disappearing inequalities in these dimensions. The few studies that have come out to measure inclusive growth are all based on the concept of a general concentration curve (in terms of an opportunity curve or a social mobility curve). The present paper follows suit and arrives at a simple measure of what is called an 'equality loss factor', derived as the residual of an 'equality factor', defined in terms of the squared income ratio of the poor to the rich. Data on pre-tax national income share in India from the World Inequality Database present shocking evidence of a near 100 percent equality loss for the bottom 10 percent poor compared with the top 10 percent rich over the entire period of 63 years from 1951; the loss factor for the bottom 50 compared with the top 50

was 93.3 percent in 1951, which increased to 96.9 percent in 2013. The Gini ratio increased from 0.487 to 0.612 during this period. The findings unequivocally show the prorich bias of the new liberal growth of India and thus reinforce the arguments of the paper 'Indian income inequality, 1922-2014: From British Raj to Billionaire Raj?' by Lucas Chancel and Thomas Piketty (2017). The income distribution in India post-Independence was so skewed that instead of the 1:1 equality (45 degree line), the income ratio of the top 10% to the bottom 10% was as high as 20:1 in 1951, which declined to 14:1 in 1982, and then steadily rose to 37:1 (close to 90 degree line) in 2013. So much for the inclusiveness of growth, enshrined in the 11th Plan document!

Status: Presented at Workshop.

Ongoing Studies

74. Role of Globalization, Infrastructure, Human Capital Formation in Income Inequality: Contrasting Insights from Two Emerging Economies, China and India

Hrushikesh Mallick, Mantu Kumar Mahalik (NIT Rourkela), Hemachandra Padhan (NIT Rourkela),

By using the annual data from 1980-2013, this study is trying to explore the effect of infrastructural development, human capital formation, and economic globalization on income inequality in the sample of two emerging economies, China and India.

Status: Journal publication.

75. Economic Policy Uncertainty and Inflation Uncertainty: Evidence from Developed and Emerging Economies

Srikanta Kundu, Kushal Banik Chowdhury (ISI Tezpur), 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).

Status: To be communicated in Journal.

New Initiatives

76. Carbon Emissions and Income Inequality in Selected BRICS Countries: Evidence from Q-Q Regression Approach

Hrushikesh Mallick, Hemachandra Padhan (NIT Rourkela), Mantu Kumar Mahalik (NIT Rourkela)

The study would explore the relationship between carbon emissions and income inequality in selected BRICS countries (e.g. Brazil, India, China and South Africa) by bringing out an understanding on the quintile structures of both the variables, with the use of annual data over the period, 1980-2013. By using the Quantile-on-Quantile (Q-Q) regression technique of Sim and Zhou (2015), the study would examine the carbon emissions at the lower quintile whether it is positively or negatively associated with income of the people at the lower quintile (for poor people) and similarly, what is the associationship for the upper quintile population (for the rich people) for these selected BRICS countries.

Status: New Initiative.

RESEARCH PROJECTS

Completed Projects

77. Assessing Development: Where are the Indian States?

M. Parameswaran, Amit S Ray and Manmohan Agarwal

Sponsor: Kerala State Planning Board

This research makes an attempt to conceptualise development, consisting of eight dimensions – material prosperity, education, health, economic security, personal security, environmental conditions, political voice and social connections. We use this multidimensional concept to design not only an overall index of development for Indian states but also three sub indices, human development (HD), security and voice and confidence (VC) that broadly represent three distinct aspects of development.

From an ideal set of indicators to capture each of the eight dimensions of development, the study narrows it down to a more feasible number of indicators for each dimension for India using three principles – (1) only outcome indicators are included, (2) indicators that are highly correlated with others (partial correlation coefficient exceeding 0.7) are dropped, and (3) certain variables cannot be used due to lack of availability of complete and consistent data for all major states. Using a standard linear normalization for the indicator variables, the normalised indicators are aggregated as weighted geometric means using variance as weights, thus assigning greater weights to dimensions in which the performance of states is more varied.

In general, the results clearly show that state-level performances vary drastically across various dimensions of development. Performing well in one dimension does not necessarily imply doing well on other dimensions too. Although the overall index of development is an attempt to capture the multidimensionality of development in a single composite index, it would, therefore, be inappropriate to ignore the performances on the three sub-indices and the eight dimensions. This exposes the fallacy of branding the development experience of a particular state as ideal, simply



because of its achievement on some aspects of development. In other words, this study shows that there is nothing like an ideal "Kerala Model" or a "Gujarat Model" or a "Punjab Model"! This is particularly important in a federal structure, like India, where different states may have different development priorities. The study will enable states to reflect on whether they have been performing according to their priorities and if not, they may choose to tweak their policies or their development strategies.

Status: Published as a CDS Monograph. Now in the process of publishing a book based on this research.

78. Migration, Remittances and Dutch Disease: Evidence from Kerala Economy

M. Parameswaran

Sponsor: Funded from Research unit on Kerala and World Economy

This paper examines the impact of remittances on the structure and growth of Kerala economy. The paper uses Dutch disease framework to understand the possible impact of migration and consequent remittances on Kerala economy. The framework predicts that remittances boom can results in an increase in the relative price of non-tradable goods and a decline in the growth rate of tradable sector of the economy. Increase in the relative price of non-tradable sector due greater demand stimulated by the remittances increases its profitability, resulting higher growth of this sector as well as increase in the rewards of the factors employed in this sector. The paper empirically verifies these predictions of the model and found that remittances enhanced the growth rate of non-tradable sector and reduced that of tradable sector. It also shows that remittances have a significant positive effect on relative price of non-tradable sector and relative wage in non-tradable sector. The paper thus provides empirical evidence for the argument that migration and consequent remittances played a significant role in determining the observed structure of the Kerala economy.

Status: Now revising in order to publish first as CDS working paper and later as journal article.

(i) MIGRATION

Completed Studies

79. India Migration Report 2017: Forced Migration

S. Irudaya Rajan (ed)

This edited volume draws attention to the scourge of forced migration, caused by political conflicts, climate change, disasters and development projects. The book has 21 chapters from scholars of different disciplines using mixed research methods. The opening chapter discusses how displacement undermines development gains and argues the need for an alternative development path. The subsequent chapters evaluate how forced displacement has impoverished people in different parts of India and in different contexts. The book also includes several in-depth case studies on different aspects of development-induced displacement, affecting diverse groups such as peasants, religious and ethnic minorities, poor in both urban and rural areas and women which often lead to their exclusion and marginalization.

Status: Book by Routledge.

80. South Asia Migration 2017: Recruitment, Remittances and Reintegration

S. Irudaya Rajan (ed)

The South Asia Migration Report 2017 is the first book of its kind, documenting migration profiles, diaspora, recruitment and remittances, both in individual countries as well as in the South Asian region as a whole. The volume includes studies from six nations - India, Pakistan, Bangladesh, Sri Lanka, Nepal and Afghanistan. It discusses public policy, effects of global recession in the region and its impact on migration and examines the process of reintegration of returning migrants.

Status: Book by Routledge.



Ongoing Studies

81. India Migration Report 2018: Migrants in Europe

S. Irudaya Rajan

This edited series in its 9th volume steers us to focus on migrants in Europe in the light of current EU enlargement and BREXIT. The book has 20 chapters. The first chapter discusses the prospects, patterns, policies and challenges with regard to the preference of European Union as a destination for Indian migrants. The subsequent chapters evaluate the challenges and opportunities for Indian migrants in the EU in the context of existing apprehensions and bilateral relations. The book also provides insights into social security agreements signed by India that have a labour welfare function both in India and in Europe. Moreover, it highlights irregular migration from South Asia to Europe and international trafficking from India.

Status: Ongoing.

82. India Migration Report 2019: Diaspora in Europe

S. Irudaya Rajan

This volume creates an understanding of Indian diaspora in Europe with historical perspectives and changing trends. It has 20 chapters. It also emphasizes the contribution of transnational Punjabi and Keralite communities as a development agent. The book also focuses on the identity of Indian Diasporas in Europe as well as pathways of integration across cultures, faiths and linguistic barriers.

Status: Ongoing.

83. South Asian Migration in the Gulf: Causes and Consequences

Mehdi Chowdhury and S. Irudaya Rajan

This book explores the reasons behind and impact of the migration of South Asian nationals to the Gulf countries. It

provides an overview of the demographics of the phenomenon and its mechanisms and focuses on the contribution of migrants in various sectors including construction, health and education and the overall labour market in the Gulf. The book is organised into ten chapters, and they are connected to each other as they all tap into the regional geopolitics and its links to South Asian migration to the Gulf.

Status: Ongoing.

RESEARCH PROJECTS

Ongoing Projects

84. Kerala Migration Survey, 2018

S. Irudaya Rajan and K.C. Zachariah

Sponsor: Department of NORKA, Govt. of Kerala

CDS has carried out periodic sample surveys to collect information on emigration, return emigration and remittances since 1998 that monitor the emigration scenario at regular intervals of time -in 2003, 2007, 2008, 2011, 2013 and 2016. The primary objectives of all these studies were to provide estimates of emigrants, return emigrants, NRKs and remittances and assess the impact of migration on individuals, economy and Kerala society in general. 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.

Status: Ongoing.



85. Demography, Migration and its Impact on Kerala Economy

S. Irudaya Rajan, Udaya. S. Mishra and K.C. Zachariah Sponsor: ILO, New Delhi.

Kerala has a distinct age structure of populace on account of dramatic changes in three demographic variables fertility, mortality and mobility - over the last six decades. Changing demographics of the state is reflected in the median age of population shifting from 19 years in 1961 to 31 years in 2011. This need not be read merely as aging of the state's population but aging of the workforce as well, which will be older compared to the past. The sustained below replacement level of fertility along with large-scale international migration, closing of the demographic dividend as well as ageing of population has prompted large-scale in-migration to the state in recent times to replace migrant labour from Kerala and is termed replacement migration. Such replacement labour migration to the state needs to be sustained with appropriate policies in place for a smooth functioning of the domestic economy. Current and prospective demography of Kerala therefore remains vital for designing policies and programmes in the state particularly in regard to labour and employment followed by social security and welfare.

Status: Ongoing.

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

S. Irudaya Rajan and Bharati Basu (Central Michigan University, United States of America)

Sponsor: UAE Exchange Centre LLC

Although India is the largest recipient of international remittances, it is surprising that not much analysis has

been done about the use of remittances in India. This becomes especially relevant as the Government of India, in recent years, is trying to boost investment in any way possible to foster an ambitious rate of growth and efforts are underway in both public and private sectors to increase the flow of remittances and more importantly the investment use of remittances. Thus, there is a need for collecting information about the attitude of remittance receiving households towards investment and to know whether a certain type of incentive would eventually raise the investment level of these households. One way to meet this need is to have a randomized controlled experiment involving migrant households and their migrant members. This type of a social experiment is the first of its kind in India, which has successfully completed its first half. The process is now in the phase of sending incentives to the beneficiaries in the treatment group which had been selected at random.

Status: Ongoing.

New Initiative

87. Kerala Migration Survey 2018 Panel Surveys

S. Irudaya Rajan and K.C. Zachariah

Sponsor: REALM

This is in continuation with the periodic surveys to collect information on emigration, return emigration and remittances since 1998 to monitor the emigration scenario at regular intervals of 2003, 2007, 2008 and 2013. Every five years, a panel list of households was surveyed which explored the changes and trends involved in the same households at different points of time. In this survey, there are ten different panels with 10,000 households throughout Kerala. The survey will start in May 2018 and will be finished by July 2018.

Status: New Initiative.



(j) PLANTATION CROPS

Ongoing Studies

88. 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)

Innovation studies have highlighted the role of technological diffusion in increasing production and productivity, irrespective of the sectors concerned. Several studies have emphasized the contribution of R&D and extension system towards improving the performance of natural rubber. In this regard. the role of the Rubber Research Institute of India (RRII) under the Rubber Board is important. Over the years, a series of technological innovations have been generated at the instance of RRII with respect to cultivation, harvesting and processing of natural rubber. Notable among them are the high yielding varieties of clones, particularly RRII 105 which is the most widely adopted clone by the rubber farmers. Along with it, to enhance efficiency in production, optimal harvesting practices such as low-frequency tapping and controlled upward tapping, modern cultural practices such as rain guarding of trees have been developed. However, evidence tends to suggest that the farmers are not following the recommended practice of low-frequency tapping and controlled upward tapping despite its benefits in terms of enhancing the tapping life of trees, lower labour cost and increased yield. This study attempts to explore the reasons for the lower adoption of these innovations In order to address the broader question of factors influencing the low diffusion/ adoption of tapping practices such as Low-Frequency Tapping (LFT) and Controlled Upward Tapping (CUT), the present study would attempt to analyze the following questions focusing on both supply and demand-side factors.

 What are the existing institutional mechanisms to ensure interactive learning between the growers and RRII in the dissemination of tapping and rain guarding practices?

- To what extent the institutional mechanisms are able to facilitate interaction between growers and the RRII?
- How do users of innovations (growers/tappers) conceive the concerned innovations?
- What are the farm, farmer and crop-specific characteristics that influence the decision of the grower to adopt LFT/CUT?

Status: Ongoing.

89. The Harvest is Plentiful, but the Harvesters are a Few? An Exploration of the below Potential of Natural Rubber

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

Among the plantation crops in India, natural rubber has witnessed a remarkable growth in area, production and productivity during the last few decades. The planted area increased from 1.4 lakh hectare in 1960 to 7.5 lakh hectare in 2012. The production of natural rubber increased by six-fold from 1.5 lakh tonnes in 1980 to 9.1 lakh tonnes in 2012-13 at the rate of 5.9 per cent. India witnessed the highest productivity of 1806 kg/ha in the world during 2010-11. Studies have attributed this remarkable performance to the relatively better institutional support provided by the Rubber Board to the smallholders who dominate accounting for about 90% of the area and over 93% of the production. Despite having the highest productivity, the sector appears to have failed to withstand the heightened international competition resulting from the opening up of the economy. This increased international competition through contributed to a downward trend in prices. NRPPD (2016) study has noted that at the prevailing market price, the net income of growers with average holding size and entirely dependent on natural rubber, would be lower than those below the poverty line. Further, productivity drastically slumped by 17 per cent from 1879 kg per ha in 2006-07 to 1437 kg per ha in 2015-16, registering a negative growth rate of 3 per cent per annum. The production decreased from 9.1 lakh tonnes in 2012-13 to 6.9 lakh



tonnes in 2016-17. Given the area under natural rubber with tappable age (5.86 lakh ha), the potential production as reported by the Rubber Board should have been around one million tonnes. Thus it represents a situation wherein capacity utilization in natural rubber production is less than 70%. In this context, the proposed study intends to explore the factors contributing towards the below potential production of natural rubber? The specific issues addressed by the study include;

- What are the price and non-price factors (farm and farmer characteristics) that induce the growers to refrain from tapping their tappable trees? and
- What are the institutional interventions in place to incentivize the growers to tap the trees?

Status: Ongoing.

90. Diffusion/adoption of Innovations in Coffee: A Study of Chandragiri Variety

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

The importance of technological innovations for increasing production and productivity and hence improving the livelihood of farmers has been well acknowledged in the innovation literature. Similar to other plantation crops in India, Central Coffee Research Institute (CCRI) under the Coffee Board, has been involved in the generation and dissemination of technological innovations. Technological innovations generated at the instance of CCRI are with respect to various aspects of planting, cultivation, harvesting and processing of coffee. However, notwithstanding the R&D efforts, the overall yield of coffee declined from 814 kg per hectare in 1970-71 to 773 kg per hectare in 2016-17 registering a decline of -0.11 per cent. Particularly, the decline was evident in Arabica variety of coffee rather than Robusta. The yield of Arabica witnessed a decline from 725 kg per hectare in 1970-71 to 492 kg per hectare in 2016-17 at the rate of -0.84 per cent. An important step undertaken by the CCRI to address this issue has been the introduction of the high yielding varieties of coffee among others. One such

variety introduced is the Chandragiri variety, which is a new Arabica coffee cultivar released for cultivation in December 2007 after almost twenty-one years of research. Unlike other Arabica varieties, Chandragiri is characterized by larger beans, high yield potential, superior beverage quality and higher resistance to leaf rust disease. This study attempts to analyse the adoption/diffusion pattern of Chandragiri variety by the small coffee growers, the knowledge of which is at best rudimentary. The specific issues addressed are

- What are the existing institutional mechanisms to ensure interactive learning between the growers and CCRI in the dissemination of Chandragiri variety?
- To what extent the institutional mechanisms are able to facilitate interaction between coffee growers and the CCRI?
- What are the farm, farmer and crop specific characteristics that influence the decision of the grower to adopt Chandragiri variety over other varieties? (such as say S 795 variety which is the widely adopted clone)
- To what extent institutional inertia (if any) has an influence on diffusion/adoption of Chandragiri variety?

Status: Ongoing.

91. Post-harvest Issues in Spices: Study of Coriander and Cumin

K.J. Joseph and S. Mohankumar (IDS Jaipur)

Spice crops are known for its reliance on export market and its concomitant market characteristics of price volatility. There are at present 52 spice crops under the export promotion programme of the Spices Board of India. The relative significance of these crops varies in terms of area, production, productivity, geographical concentration and export earnings. While there exists a number of studies on major spices such as cardamom, black pepper and red chillies, others remain as 'orphan crops'. Hence there arises the need for a better understanding of the latter category of spices for informed policymaking. Among the seed spices, coriander and cumin assumes special significance. In 2014-



15. over 30% of the Cumin produced in India was exported. More than 60% of area under Cumin cultivation in India is concentrated in six districts in Rajasthan, viz., Barmer, Jalore, Nagaur, Pali, Jaisalmer and Jodhpur. It contributed about 12% of the total volume of spice exports from India and 10% of the value of export earnings (2015-16). Coriander, on the other hand, is primarily a crop of South East Rajasthan and its cultivation is mostly concentrated in five districts in Rajasthan, viz., Kota, Baran, Bundi, Chittorgarh and Jhalawar. In 2015-16, Rajasthan accounted for 34% of the area and 49.65% of production of Coriander in India. Coriander accounted for 2.63 per cent and 4.76 per cent of the value and volume of spices exports respectively in 2015-16. Unlike most other plantation crops, which are perennial in nature, cumin and coriander are seasonal crops with their production depends crucially on the price. The price-output relationship in case of these crops could be viewed in terms of Cob-web model farmers determine the production of crops in the current year based on the price received during the preceding year. Similarly, the prices of the seed spices in the current season would influence the area under cultivation and therefore supply in the next season. Since the price depends not only on demand and supply conditions but also on the efficiency with which marketing is undertaken, the present study attempts to analyze the post-harvesting aspects related to the two crops by addressing the following specific objectives.

- To examine the existing market structure how competitive is the market?
- To analyze the marketing channels and marketing cost
- To analyze the marketing margin and marketing efficiency
- To analyze the interlinkages (credit, land leasing and ground rent), if any, existing in these crops.
- To analyse the export performance and the role of supply-side factors therein.

Status: Ongoing

Note: All studies mentioned in this section (Plantation Crops) are undertaken in collaboration with the Commodity Board concerned.

(k) POLITICS AND DEVELOPMENT

Ongoing Studies

92. Search Generated Unemployment and Nepotism

Rajit Biswas and Debojyoti Mazumder (IIM Indore)

We construct a model of search generated unemployment and nepotism and show that the steady state equilibrium, will be characterised by investment by both incumbent and opponent parties in nepotism. Thus a prisoner's dilemma like situation is generated. We extend the model to examine the case of swing voting.

Status: Ongoing

93. Efficiency of Indirect Taxes in Oligopoly in Presence of Fixed-cost in 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 efficiency ranking of the taxes may get reversed. This is because ad valorem tax can cause a total cessation of production by the firms. Unit taxes can also dominate ad valorem taxes when there are external economies of scale.

Status: Ongoing

94. Analysis of Lok Sabha Elections: BJP vs. INC

Ritika Jain

The study aims to compare the characteristics of the contestants and winners from BJP and INC in the last three Lok Sabha elections.

Status: Study is at a nascent stage-working on data analysis.



95. 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 'lockin' 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.

96. Revisionism: The Game of Filling in the Marxian Blanks

N. Vijayamohanan Pillai

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

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

Status: Plan as Chapter in book.

New Initiative

97. Contemporary Transformations in Dalit-Adivasi Struggle in Kerala

Jayaseelan Raj

The Dalits and Adivasis, who constitute around 12 percent of Kerala's population, largely remain at the margins with regard to state-led egalitarian initiatives. They open up the paradox of a specific state-led development initiatives often referred as the Kerala Model of Development. It is widely recognised now that they were untouched by the widely acclaimed Kerala's land reform implemented in the early 1970s (Kurien 1997). Adivasis were alienated from access to forest resources and were ripped off of their livelihood options. Dalits were largely reproduced in stigmatised colonies as precarious labour force. According to a study conducted by KILA (Kerala Institute of Local Administration), there are around 2.5 lakh landless Dalit families in Kerala, which, according to one of my informants, could go up to 5.5 lakh families. The KILA study also shows that there are around 26193 Dalit colonies (slum-like settlements) and 14000 Adivasi colonies in Kerala. The study did not include the plantation lines that are not any better than a 'colony' settlement. These figures show the huge unequal distribution of land in Kerala and explains why Dalit-Adivasi groups had raised the issue of land as their major demand in the last two decades. The percentage of landless Dalits in Kerala compared to other dominant groups is one of the highest among Indian states. The Dalit-Adivasi land struggle becomes highly relevant in a time when studies shows widening income inequality. This research will explore contemporary land struggles of Adivasis and Dalits with a special reference to Chalo Thiruvananthapuram agitation that demand land



and resource rights not only for Adivasis-Dalit community, but also for other marginalised sections such as fishing and plantation communities.

Status: New Initiative (This research will be published as an ethnographic monograph)

(I) OTHER STUDIES

Completed Studies

98. Panel Data Analysis with Stata: Part 2-Problems of Non-Spherical Error

N. Vijayamohanan 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 over time 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 vary 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: Part of a book on panel data analysis.

99. 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: Part of a book on panel data analysis.

100. A Critique of Economic Philosophy from Pre-Classical to New Consensus

N. Vijayamohanan Pillai

This constitutes a chapter of a book on 'Historical Development of Economic Philosophy'. This paper was presented in a UGC-sponsored Three-Day National Workshop on "A Critique of Economic Philosophy from Pre-Classical to New Classical", organized by the PG and research department of Economics



of Arul Anandar College, Karumathur, Madurai, on 18 March 2017. The paper presents a snapshot of the historical development of economic doctrines from the early pre-classical period to the latest New Consensus between the once-warring New Classicals and the New Keynesians. The paper notes that in the context of the early Eastern economic thought of the pre-classical period, few references are made of Kautilya's Arthashasthra (c. 4th century BC), despite its genuine claim of being the science of "Wealth of Nations", that is, Political Economy, including starting productive enterprises, taxation, revenue collection, budget and accounts and international trade; that Arthashasthra contains the first description of the labour theory of value has unfortunately been overlooked by many. The paper critically reviews the ideas and the policy conclusions of the different schools of mercantilism, physiocracy, classical school, Historicist-Institutionalist School (1840s-1940s), Neoclassical School (1871 onwards), Keynesian School (1936 onwards), Monetarist (Chicago) School (1968 onwards), New Classicals or "fundamentalist" Monetarists (1978 onwards), New Keynesians (the late 1970s onwards) and finally the New Consensus Macroeconomics, starting from the symposium on monetary economics in the Journal of Post Keynesian Economics, Summer 2002, signalling a "new consensus" among the central bankers (in Canada, the U.S., the U.K. and the European Union) and the mainstream academic economists, mostly New Keynesians, regarding monetary policy.

Status: For Publication.

101. Why Do We Do What We Do with Statistics?

N. Vijayamohanan Pillai

This paper is based on the Keynote/Inaugural address on "The Rationale of Quantitative Techniques in Social Science Research" that I delivered in the Three-day National workshop on 'Hands-on Training in Quantitative Data Analysis', organised by the Dept. of Economics, University of Kerala during 12th-14th March 2018. The paper critically reviews the philosophical rationale of statistical methods usually employed in social science research. We start with the famous 'Methodenstreit' (battle of methods) in economics

that in turn has characterized the traditional distinction between deduction and induction as a 'theory-data confrontation'. The 'theory first' approach starts with deriving deductively certain laws based on certain initial postulates and then goes on to assess their validity in interpreting economic phenomena, whereas the 'data first' approach argues that theory should emerge by induction from data, rather than being developed purely deductively. Deduction starts with general premises to reach specific conclusion, while induction involves invoking generalizations from specific observations. If the premises of deduction are true, then the conclusion must be true; there is a deterministic element. However, in induction, conclusions can go wrong even if the premises are true; there is a non-deterministic element. Thus statistical inference, dealing with stochastic behaviours, is inductive. In statistical induction, evidential support and confirmation are the central concepts. In this background, we critically evaluate the two paradigms of classical (or error or frequentist) statistics and Bayesian statistics and seek to bring out a dialectical synthesis between the two. This dialectics we evaluate vis-à-vis two of the non-inductive analyses of scientific enquiry that emerged out of the difficulties with inductive inference, viz., the Hypothetico-Deductive method and Karl Popper's critical rationalism or falsificationism.

Status: For Publication.

New Initiatives

102. A Topical Encyclopedic Dictionary of Econometrics

N. Vijayamohanan Pillai

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

3

OUTPUTS OF RESEARCH

(A) PUBLICATIONS

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

At present there are a total of 475 working papers and 45 books brought out under the CDS programme. This year 3 working papers were published. A total of 5 books have been published by the faculty, 27 research articles in professional journals. 13 chapters in edited volumes and 25 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, Policy 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

J. Devika

Pennorumbettaal Lokam Maarunnu: Linganeethiyude Aagolaviplavangal [If Women Dare The World Changes: The Global Revolutions of Gender Justice], Thiruvananthapuram: Readme Books, 2017.



S. Irudaya Rajan

The South Asia Migration Report 2017 (ed): Recruitment, Remittances and Reintegration, Routledge. 2017.

India Migration Report 2017: Forced Migration,(ed.) Routledge, 2017.

India's Aged: Needs and Vulnerabilities, Orient Blackswan, 2017. (with Udaya S. Mishra).

Manmohan Agarwal

Did the Millennium Development Goals Work? Meeting Future Challenges with Past Lessons, Policy Press, 2017. {with Hany Besada, Leah McMillan Polonenko (eds)}

Udaya S. Mishra

India's Aged: Needs and Vulnerabilities, Orient Blackswan, 2017. (with S.Irudaya Rajan).

(b) JOURNAL ARTICLES

Abhilash Thadathil

'Ashram Schools: Need for a New Approach', *Economic and Political Weekly*, Vol.52, No. 49, 2017 (with Rajesh Dinkar Danae).

J. Devika

'Decolonising-Nationalist Racism? Reflections on Travel Writing from Mid-twentieth Century Kerala, India,' *Modern Asian Studies*, doi:10.1017/S0026749X16000548, 2018.

Hrushikesh Mallick

'Is Globalization Detrimental to Financial Development? Further Evidence from a very Large Emerging Economy with Significant Orientation Towards Policies,' *Applied Economics*. Vol. 50(6), 2018. (with Muhammad Shahbaza, Mantu Kumar Mahalik and Shawkat Hammoudeha)

'Determinants of Workers' Remittances into Developing Asian Economies,' *The World Economy*, Vol. 40 (12) (2017), pp. 2875–2900.

'Do International Crude Oil Price and Public Investment Affect Private Investment? An Empirical Analysis for a Large Emerging Economy,' accepted and in press with the *Energy Economics*, (with Mantu Kumar Mahalik, Manoranjan Sahoo).

S. Irudaya Rajan

'Causes, Consequences, and Policy Responses to the Migration of Health Workers: Key findings from India,' *Human Resources for Health.* 15:285 April 2017. (with Margaret Walton-Roberts, Vivien Runnels, Atul Sood, Sreelekha Nair, Philomina Thomas, Corinne Packer, Adrian MacKenzie, Gail Tomblin Murphy, Ronald Labonté and Ivy Lynn Bourgeault) https://doi.org/10.1186/s12960-017-0199-y.

'Low Fertility in Developing Countries: Causes and Implications,' Special Issue, *Journal of Biosocial Science*, Vol.49, pp. S1–S3, Cambridge University Press, 2017 (with Saseendran Pallikadavath and Chris Wilson).

'Nursing Education in India: Changing Facets and Emerging Trends,' *Economic and Political Weekly*, Vol. 52, Issue No. 24, 17 June, 2017 (with Sreelekha Nair).

'Tamil Nadu Migration Survey 2015,' *Economic and Political Weekly*, Vol. 52, Issue No. 21, 27 May 2017. (with Bernard D'Sami and S. Samuel Asir Raj).

K.J. Joseph

'Innovation and Natural Resource-based Development: Case of Natural Rubber Sector in Kerala, India, *Innovation and Development*, 8(1) 125-146, 2017 (with Namrata Thapa and Olav Wicken).

'Information Technology Agreement of WTO: Call for a Revisit, *International Journal of South Asian Economies*, Vol. 6, No.2, 2017 (with Liyan Zhang, Rajesh Many).

Manmohan Agarwal

'Foreign Direct Investment and Poverty Reduction: India in Regional Context,' *South Asia Economic Journal*, 18(2), 135-157.2017 (with Srikanta Kundu and Atri, P).



Rajit Biswas

'Tariffs, Efficiency Wages and Unemployment,' *Journal of Industry, Competition and Trade* (forthcoming). (with Kumar Shubham).

Ritika Jain

'Contributions to the Exchequer Funds by State Level Public Sector Enterprises in India: Does Political Alignment Matter?' Constitutional Political Economy (Forthcoming).

'Public Sector Enterprise Disinvestment in India: Efficiency Gains in a Political Context, *Journal of Asian Economics* (Forthcoming).

'Ownership Effects on R&D Spending in India: Does External Borrowing Matter?' (Accepted at *International Journal of Technological Learning, Innovation and Development*).

'An Empirical Analysis of Disinvestment Policy in India: Does Ideology Matter?' accepted at *Journal of Economic Policy Reform* (with Shubhro Sarkar).

Srikanta Kundu

'Regime dependent effects of uncertainty on inflation and output growth: evidence from the United Kingdom and the United States,' Scottish Journal of Political Economy. 2018 (with Chowdhury, K. B and Sarkar, N).

'Foreign Direct Investment and Poverty Reduction: India in Regional Context,' *South Asia Economic Journal*, 18(2), 135-157.2017 (with Agarwal, M., Atri, P.).

Sunil Mani

'Human Resource Management and co-ordination for Innovation Activities-cases from India's Automotive Industry,' *Asian Journal of Technology and Innovation*, Vol.25, No.2, pp. 228-245.

Udaya S. Mishra

'Literacy Achievement in India: A Demographic Evaluation' *Prospects*, Vol.47(3), pp.257-274. 2017. (with Vachaspati Shukla).

'Educational Expansion and Schooling Inequality: Testing Educational Kuznets Curve for India' Social Indicators Research (forthcoming) 2018. https://doi.org/10.1007/s11205-018-1863-x (with Vachaspati Shukla).

'The National Health Policy of India, 2017: Some Reflections' *Economic and Political Weekly (forthcoming)* 2018. (with William Joe, Shalini Rudra, and Mala Ramanathan).

'Literacy Achievement in India: Across the States and Over the Age Cohort' *Economic and Political Weekly (forthcoming)* 2018. (with Vachaspati Shukla).

Vinoj Abraham

'Stagnant Employment Growth: Last Three Years May Have Been the Worst,' *Economic and Political Weekly*, Vol. 52, Issue No. 38, 23 Sep, 2017.

Journal Articles by Students / Post Doctoral Fellows

Atri P.

'Foreign Direct Investment and Poverty Reduction: India in Regional Context,' *South Asia Economic Journal*, 18(2), 135-157.2017 (with Agarwal, M.and Srikanta Kundu.).

Vachaspati Shukla

'Literacy Achievement in India: A Demographic Evaluation' *Prospects*, Vol.47(3), pp.257-274. 2017. (with Udaya S. Mishra).

'Educational Expansion and Schooling Inequality: Testing Educational Kuznets Curve for India' Social Indicators Research (forthcoming) 2018. https://doi.org/10.1007/s11205-018-1863-x (with Udaya S. Mishra).

'Literacy Achievement in India: Across the States and Over the Age Cohort' *Economic and Political Weekly (forthcoming)* 2018. (with Udaya S. Mishra).

Yadu C.R.

'Labour Centred Development and Economic Democracy: An Indian Cooperative's Case Study' In *The Future of Income*,



Work and Labour edited by Miriam Kennet, published by Green Economics Institute, U.K. 2017 (with Abid Firdousi, M.S).

'Evolving Wealth Inequality in Kerala: Mapping the Winners and the Losers' in *Capital and Justice* edited by Gerson Lima and Maria Alejandra Madi, published by World Economics Association, U.K. 2017 (with Satheesha B).

(c) CHAPTER(S) IN BOOKS

J. Devika

'Reformer-Man and Feminist Man: The End of an Era in Kerala', in Romit Choudhury and Zaid Al-Basset (eds), *Men and Feminism in India*, New Delhi: Routledge India, 2018.

'A Woman among the Reformers', Introduction to *On the Far Side of Memory: Short Stories of Lalitambika Antharjanam*, New Delhi: OUP, 2017.

S. Irudaya Rajan

'Life Satisfaction among the Elderly in Kerala – A Longitudinal Analysis,' Chapter 9, pp.200-212. in Udaya S. Mishra and S. Irudaya Rajan (Eds.) 2017. *India's Aged: Needs and Vulnerabilities*, Orient Blackswan, 2017 (with S. Sunitha).

'Disability Free Life Expectancy among the Elderly,' Chapter 5, Pp. 114 -125, in Udaya S. Mishra and S. Irudaya Rajan (Eds.) 2017. *India's Aged: Needs and Vulnerabilities*,. Orient Blackswan, 2017 (with Anjana A).

'South Asia – Gulf Migration Corridor: An Introduction,' in S. Irudaya Rajan (Ed.) *The South Asia Migration Report 2017: Recruitment, Remittances and Reintegration* Routledge. 2017.

'Infrastructure Development and Forced Displacement in Kerala: Risks and Vulnerabilities,' Chapter 8 in S. Irudaya Rajan (Ed.) India Migration Report 2017: Forced Migration, Routledge. 2017, (with Indu K).

'International Migration in Tamil Nadu: Results from the Tamil Nadu Migration Survey 2015,' Chapter 15 in S. Irudaya

Rajan (Ed.) *India Migration Report 2017: Forced Migration*. Routledge, 2017. (with Bernard D'Sami and S Samuel Asir Raj).

'Kerala Migration Survey 2016: New Evidences,' Chapter 18 in S. Irudaya Rajan (Ed.) *India Migration Report 2017:* Forced Migration, Routledge. 2017 (with K.C. Zachariah)

'Dalit Migration, Diaspora and Development: Kerala and Punjab,' Chapter 19 in S. Irudaya Rajan (Ed.) *India Migration Report 2017: Forced Migration*, Routledge. 2017. (with Steve Taylor and Vinod Kumar).

Manmohan Agarwal

'North Africa and Middle East; Economic Performance and Social Progress,' In Hany Besada, Leah McMillan Polonenko and Manmohan Agarwal (eds), *Did The Millennium Development Goals Work? Meeting Future Challenges with Past Lessons*, Policy Press 2017. (with Badye Essid).

Seenath, P.

'Managing Groundwater for Irrigation in Kerala: The Way Forward,' In Ramya, R. and Kumar, B.P. (eds.): *A New Agenda for Kerala Economy*, Scholar Publications, Karimganj, India. p.135-145, 2017 (with Devi, Pl.).

Sunil Mani

'One Size does not fit all: An Analysis of the Importance of Industry-specific Policies for Growing High Technology Industries in India'. In S. Mahendradev (ed) *India Development Report 2017*. Delhi: Oxford University Press, pp. 224-245.

'Policy Spree or Policy Paralysis: An Evaluation of India's Efforts at encouraging firm-level innovative activities' in Kuhlman, Stefan and Gonzalo-Ordonez-Matamoros (eds) Research Handbook on Innovation Governance for Emerging Economies, Cheltenham, UK and Northampton, MA, USA: Edward Elgar, pp. 316-344.



(d) OTHER PUBLICATIONS

Devika, J

[With many co-authors], 'Human-diversity-friendly Panchayats: A Lobby-note for the LGBTIQ Community for Inclusion in Kerala's Local Self-Government', CDS, RULSG, 2017.

Published translations

On the Far Side of Memory: Short Stories of Lalitambika Antharjanam, New Delhi: OUP, 2017.

'The Deepest Blue', [translation of KR Meera's Karineela'], in Mini Krishnan (ed) *Tell Me a Long, Long Story: Twelve Memorable Stories from India*, New Delhi: OUP.

'My brother Sanghi' [translation of KR Meera's 'Sanghiyannan'] https://www.juggernaut.in/books/088d472b19d745d29492560654250e15

'Alappuzha vellam' (translation of Anitha Thampi's poem) in *India Quarterly* July-Sept 2007, published jointly with *Modern Poetry in Translation* 1, 2017, UK. http://www.mptmagazine.c om/author/anitha-thampi-5986/

Ongoing/forthcoming translations

Short stories of Ashitha [under consideration of Stree/Samya, Kolkata]

Short stories of Unni R [ongoing]

Short stories of K Saraswathi Amma [in the publication process with OUP]

Writing in the Malayalam Press

Have published two long essays on politics, development, caste, and gender in the *Mathrubhumi Weekly*, and a long interview with *Madhyamam*.

Contributes a monthly column in the Indian Express Malayalam online magazine, IEMalayalam.com since Mar 2017.

Writing in the English Press

Have continued to offer social scientific commentary on contemporary Kerala on www.kafila.org

Have written in *The Hindu*, *Indian Express*, and *TOI*. Also on *The Wire*, *Caravan*.

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

S. Irudaya Rajan

'Demographic Scenario of India: A Vision for 2025,' Mathrubhumi Year Book Plus 2018, pp. 60–70.

'The Elderly in India Deserve the Right to live with Dignity,' Hindustan Times. Edit Page Article. February 6, 2018.

'As the Borders Begin to Close,' The Hindu, Edit Page Article. February 22, 2018.

Manmohan Agarwal

'Assessing Development: Where are the Indian States?' Monograph, January, 2018. (with Amit S Ray, M Parameswaran, Upasak Das, Sandeep Kumar Kujur).

M. Parameswaran

'Assessing Development: Where are the Indian States,' Monograph, Centre for Development Studies. 2018 (with Amit Shovan Ray, Manmohan Agarwal, Upasak Das, Sandeep Kumar Kujur).

Udaya S. Mishra

Assessing Development: Where are the Indian States? Monograph, Centre for Development Studies. 2018 (with Amit S Ray, Manmohan Agarwal, M. Parameswaran Upasak Das, Sandeep Kumar Kujur).



Vinoj Abraham

'Declining Wage Share in India's Organised Manufacturing Sector: Trends, Patterns and Determinants' ILO Asia-Pacific Working Paper Series, DWT for South Asia and Country Office for India, 2017. (with Sasikumar S. K) http://www.ilo.org/newdelhi/whatwedo/publications/WCMS 614777/lang—en/index.htm

'Global Study on Good Practices in Using Partnerships for Effective and Efficient Delivery of Employment Services and Active Labour Market Policies: The Case of India,' 21 December, EMPLOYMENT Working Paper No. 233, ILO Geneva, 2017 (with Sasikumar S. K). http://www.ilo.org/employment/Whatwedo/Publications/working-papers/WCMS 614389/lang—en/index.htm

Other Publications by Students / Post Doctoral Fellows

Irfan Ahmad Shah, 'Welfare Cost of Inflation: Evidence from India,' Discussion Paper, RIS, New Delhi, http://www.ris.org.in/monetary-policy-its-changing-objectives-instruments-and-results

RULSG Occasional Papers/ Reports

Rebecca Miles. 2018. 'Local Organisations in Kerala Support Ageing in Community'; RULSG Lateral Studies Series-1. March.

Lars Olav Aaberg. 2018. 'Masculinity at the Interface of Liberalised Development: Reflections from an Urban Slum in Kerala,' RULSG Lateral Studies Series-2, March.

J. Devika and Jyothi S. Nair. 2019. 'Kudambashree and its Rivals: Reflections on Women's Citizenship, Social Connections and SHGs in Kerala' RULSG Lateral Studies Series- 3 March.

Srikumar Chattopadhyay & K.N. Harilal. 2017. 'Emerging Challenges of Urban Water Governance: Case of Thiruvananthapuram City, India,' *RULSG Occasional Papers* 2017:1.

Human Diversity-Friendly Local Self-Governments – A Lobby Note for Integration of LGBTIQ Rights and Demands into the Local Governance Framework in Kerala (RULSG Unit).

Manava Vaividya Souhruda Panchayathukal (Malayalam) RULSG, May, 2017.

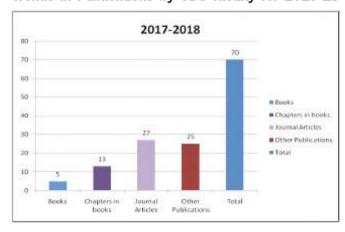
(e) WORKING PAPERS

Manmohan Agarwal. 2017. 'The Operation of the Gold Standard in the Core and the Periphery before the First World War,' CDS Working Paper No. 473, June.

Sunil Mani. 2017. 'Robot Apocalypse Does it Matter for India's Manufacturing Industry? CDS Working Paper No. 474, December.

Mohan R, D. Shyjan and N. Ramalingam. 2018. 'Cash Holdings and Tax Evaded Incomes in India –A Discussion,' CDS Working Paper No. 475, January.

Trends in Publications by CDS faculty for 2017-18



(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 11 open seminars were conducted. In addition to this, 6 seminars were given by



the faculty and students. The CDS also organised several international, national seminars/conferences and workshops in addition to 5 academic lectures and three public lectures.

(a) Open Seminars

Rebecca Miles, Visiting Senior Scholar-Centre for Development Studies & Professor, Department of Urban & Regional Planning, Florida State University, Tallahassee, Florida, A Unique Partnership between Community and Local Self-Government in Kerala responds to Population Ageing (21 April, 2017)

Pulapre Balakrishnan and M.Parameswaran, Centre for Development Studies, *Inflation in India* (Current Issues in India's Economy and Society Series – 1) (2 May, 2017)

Subhasish Dugar, Associate Professor, Department of Economics, University of Utah, *Deception: The Role of Uncertain Consequences*, (25 August, 2017)

R. Mohan, IRS (Retd.) Member, Public Expenditure Review Committee, *Tax Evaded Economy in India-An Attempt to Measure* (22 September, 2017)

Edward Anderson, Centre of South Asian Studies, University of Cambridge, "Smugglers of Truth": The Indian Diaspora, Hindu Nationalism, and the Emergency (1975-77) (16 October, 2017)

Judith Heyer, Emeritus Fellow, Oxford, Agriculture in Coimbatore Region: An Example of a Symbiotic Relationship(6 December, 2017)

Md Zakaria Siddiqui, Research Fellow, Institute of Economics and Peace, *Beyond the Great Calorie Debate:* What is Happening to Nutrition Transition in India (29 December, 2017)

G. Murugan, Senior ICSSR Fellow, CDS and K.S. Hari, International Remittance and Economic Growth: The Long Run Dynamics of Kerala Economy (5 January, 2018)

P. Kanagasabapathi (Member, ICSSR Council) *Indian Economics and Business Models*, (19 January, 2018)

Neil G. Ruiz, Associate Director, Global Migration & Demography Pew Research Centre, Washington DC, *Indian Skilled Migration to the United States* (29 January, 2018)

Padmini Swaminathan (Professor, Tata Institute of Social Sciences, Hyderabad) Gendering Public Policy: From a Transformative Agenda to one of Accommodation (16 March, 2018)

(b) Seminars by CDS Faculty/Students

P.L. Beena and Meena Abraham Chacko, Researcher, Is There Complementarity Between Aid, Trade and Investment from India? (11 August, 2017)

Sunil Mani, Diffusion of Automation Technologies in India's Manufacturing Industry, Implications for Manufacturing Employment (18 August, 2017)

K.J. Joseph, Liyan Zhang, Director, Centre for Innovation and Entrepreneurship-TUFE, China and Kiran Kakarlapudi, Doctoral scholar, CDS, *Turnaround in China's Inter-regional Inequality in Development? An Innovation System Perspective* (6 October, 2017)

Manmohan Agarwal (RBI Chair Professor) and Amrita Brahmo (Researcher) *The 2008 Financial Crisis and Shifts in Economic Power* (2 February, 2018)

Sunil Mani and Yasushi Hara (Specialist, Science for REdesigning Science, Technology and Innovation Policy Centre (Sci Rex Centre), National Graduate Institute for Policy Studies, Tokyo, Japan and Management Innovation Center, Hitotsubashi University, Tokyo.) Innovation Capability in new and Emerging Technologies, Case of Al and Robotics across Countries (26 February, 2018)

P.L. Beena, *Trends and Determinants of Outward FDI from India: A Host Country-Level Analysis* (16 March, 2018)

(c) International / National Conferences / Seminars / Workshops / Discussions/ Lectures / Events

Interactive Session with delegates from NITI Aayog was held at CDS on 14 June, 2017.



CDS-ACJ Workshop on 'Development, Welfare, and Wellbeing from Below: Challenges to Reporting from/of the Local,' at CDS during 29-30 April, 2017, coordinated by Dr J. Devika.

RULSG Round Table on Human Diversity- Friendly Local Self-Governments: Realizing LGBTQI Rights in Kerala's Panchayat Raj, 29 May, 2017, co-ordinated by Dr J.Devika.

Proposal Development Workshop on 'Implementing Tasteneutral Hematic Fortification of Wheat and Maize to address Iron Deficiency among Women and Children in India , coordinated by Prof US Mishra was held at the CDS on 28-29 July, 2017.

A meeting was held at the CDS to discuss the possible formation of a Centre for Aviation Research on 9 August 2017. Meeting was co-ordinated by Prof Sunil Mani.

Lectures on Behavioural Economics By Dr. Haimanti Bhattacharya, Associate Professor, University of Utah, USA (August -3^{rd} , 8^{th} , 17^{th} , 22^{nd} and 29^{th})

A Presentation on 'Ecological Orientation' for the new students of MA, Integrated MPhil/PhD was conducted on 10 August, 2017 by Dr. J. Devika.

CDS-NITI Aayog Workshop on 'Merger of Plan and Non-Plan Expenditure and Future of Scheduled Caste Sub-Plan and Tribal Sub-Plan, co-ordinated by Dr Abhilash Thadathil and Dr Jayaseelan Raj was held at the CDS on 19 August, 2017.

CDS Governing Body Meeting held on 30 August, 2017.

Special Lecture on 'Current Issues in India's Economy and Society,' *General Discussion Series No. 1*, by Shri K.M. Chandrasekhar, Chairman, CDS on 18 September, 2017.

Lecture on 'Current Issues in India's Economy and Society: Lecture on Flow of Funds Analysis for India,' by Dr Arun Jayadev, Azim Premji University and University of Massachussets, Boston at the CDS on 20 September, 2017.

NRPPD Workshop on Research Issues in India's Plantation Sector, co-ordinated by Prof KJ Joseph at the CDS on 17 November, 2017.

Workshop on Local Government Budgets and Local Governance: The Kerala Case, Co-ordinated by J Devika and held at the CDS on 30 November, 2017.

12th Migration Training Programme on 'Methods and Approaches in Research on Migration Issues,' co-ordinated by S. Irudaya Rajan was conducted at the Centre during November 20-24, 2017.

Committee of Direction meeting held on 11 December, 2017.

ICSSR sponsored Capacity Building Programme 'Pathways of Social Research: A Methodological Training' co-ordinated by Jayaseelan Raj and Abhilash T. during 8-12 January, 2018.

RULSG Informal Discussion with Kudumbashree Staff from the State Mission, coordinated by J. Devika on 9 January, 2018.

Assessing Development: Where are the Indian States?' (Development Index Report) at the Joan Robinson Hall, on 17 January, 2018.

Lecture on 'Indian Economic and Business Models,' by Prof P. Kanagasabapathi on 19 January, 2018.

Lectures on 'Industrial Policy' by Prof Sudip Chaudhuri at CDS on 23 and 25 January, 2018.

K.N. Raj Memorial Day 2018, 'Reflections on Raj's Contribution to Teaching and Research' held at the Joan Robinson Hall on 5 February, 2018.

Panel Discussion- 'On Indian Economy: In the Context of Economic Survey 2017-18 and Union Budget 2018,' in the Baker Auditorium on 6 February, 2018.

Training Programme on Design and Evaluation of Innovation Policy (DEIP) in collaboration with United Nations University-MERIT, Maastricht, the Netherlands during February 12-16, 2018.

Visit of the British Members of Parliament to the Centre on 13 February, 2018.



Conference on 'Economic Theory and Policy,' co-ordinated by Prof Manmohan Agarwal, RBI, Chair at the CDS during 22-23, February, 2018.

Panel Discussion on 'The Trajectory of Indian Economic Development' held at the CDS by Prof Utsa Patnaik and Prof. Prabhat Patnaik on 5 March, 2018.

Workshop on 'Global Value Chains in India's Aeronautical Manufacturing Industry,' co-ordinated by Prof Sunil Mani at the CDS on 14 March, 2018.

Visit of the Deputy Consul, Consulate of Maldives, Trivandrum to the Centre on 19 March 2018.

RULSG Consultation process in preparation of the Round Table on Utilising the Funds Earmarked for Women's Development at the Centre, co-ordinated by Dr J Devika on 28 March, 2018.

(d) Public Lectures

Dr J. Srinivasan (Honorary Professor, IISc, Bangalore) delivered a Public Lecture on 'The Science of Climate Change,' at the CDS on 16 October, 2017.

Dr Mihir Shah (Distinguished Visiting Professor, Shiv Nadar University) delivered the Sixth Foundation Day Lecture on 'Redefining Reform-New Paradigm of Water Governance in India,' at the Centre on 4 December, 2017.

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

(C) NETWORKING

(a) Participation of Faculty in Conferences/ Seminars Elsewhere

OUTSIDE INDIA

Beena, P.L.

 Presented a paper 'Outward FDI, Innovation Strategies and Cross-Border M&As: Indian Evidence,' at the 15th GLOBALICS Conference held at Athens during October 11-13 2017.

Hrushikesh Mallick

- Presented a paper 'Do International Crude Oil Price and Public Investment Affect Private Investment? An Empirical Analysis for a Large Emerging Economy, at the 10th Annual Research Conference on Macroeconomic Policy Reforms towards a Vibrant Future, organised by The Central Bank of Sri Lanka, Colombo on December 8, 2017.
- A paper titled 'Does Income Inequality Trade-Off with Environmental Quality? A Contrasting Perspective on the Effects of Energy Consumption Patterns for BRICS Countries was presented at the First International Conference on Energy, Finance and the Macroeconomy (ICEFM) organised and sponsored by Montpellier Business School, Montpellier, France during November 22-24, 2017.

S. Irudaya Rajan

- Visited Nanyang Technological University (NTU), Singapore as an international expert monitor the research project 'The Missing Link: Exploring the Role of Middle Men Agents and Social Networks in The Migration Practices of Low Wage Indian Labour' during July 12-14, 2017.
- Presented the preliminary findings the REALM project,
 'A Panel Study of Migration from South India' at New York University at Abu Dhabi on November 14, 2017.
- Participated in the Tenth South Asia Economic Summit (SAES) on 'Deepening Economic Integration for Inclusive and Sustainable Development in South Asia' at Kathmandu, Nepal and Spoke on South Asia Migration and Remittances on November 15, 2017.
- Participated in the roundtable discussion, "Skills for Inclusive Growth and South-South Cooperation in Skills Development: Lessons from India" in the 8th Bosphorous Summit at Istanbul, Turkey, organised



by United Nations Development Programme (UNDP) Istanbul International Centre for Private Sector in Development (IICPSD) and the International Cooperation Platform (ICP), in partnership with UNDP India and Federation of Indian Chambers of Commerce and Industry (FICCI) from November 28-30, 2017.

- Participated in the workshop on 'Effective Use of Data for Policy Making on Ageing' organized by HelpAge International, United Nations Fund for Population Activities, East-West Centre, Hawaii and AFPPD Thailand held at Thailand during December 5-6, 2017.
- Participated in a meeting organized by the Migration and Remittances team of World Bank and gave a talk on History of Kerala Migration surveys Washington, World Bank, United States of America on January 24, 2018.
- Participated in the review meeting of the UAE funded project, 'Incentives for Investment: Randomized Controlled Experiment for India' at Central Michigan University, United States of America on January 25, 2018.
- Participated in the first FEPS Global Migration Groupkick-off meeting on 'The Dilemmas of the Destination Countries' during March 1-2, 2018 at Rome, Italy.
- Attended a meeting organised by the Qatar University on Migration Crisis on March 10, 2018 in Doha, Qatar.
- Participated in the discussion on Migration from South Asia to the Gulf at Northwestern University, Qatar on March 11, 2018.
- Reviewed the outcome of the ongoing project 'Migration and Gender' at Georgetown University, Doha, Qatar on March 12, 2018.
- Visited the Institute of Development Studies, University of Sussex, United Kingdom to finalize the IDRC project report on March 18, 2018.

- Reviewed the progress of REALM project at International Institute of Social Studies, The Hague, Netherlands on March 19, 2018.
- Delivered talk on Mapping International Migration: Evidences from Kerala Migration Surveys, 1998-2018 at the Department of Political Science in Leiden University, Netherlands on March 20, 2018.

Jayaseelan Raj

 Presented a paper on 'Egalitarian State, Inegalitarian Society? Dalits and the Struggle for Land in Contemporary India,' at the Egalitarianism Workshop, University of Bergen, Norway during 21-24 August, 2017.

K.J. Joseph

- Made a presentation on 'Addressing the Development Paradox of 21st Century through Building LICS - The RedeSist Way,'in the international workshop organised as part of the 20 Years of RedeSisit, by the Federal University of Rio de Janerio, November 21-23, 2017.
- Made a presentation on 'Interrogating Agricultural Innovation System from Small Farmers' Perspective,' and chaired a session and acted as discussant of two papers in the 15 Globelics International Conference held at Athens, Greece on October 11-13, 2017.
- Made a presentation on 'Measurement and Evaluation of National Innovation Systems,' in the Global Forum of National Advisory Councils, Pretoria during December 4-6, 2017.

Praveena Kodoth

 Presented a paper 'Informality in Recruitment and Mobility of South Indian Women Domestic Workers to the Middle East', at the Seminar on The Migration Industry: Facilitators and Brokerage in Asia, organised by the Asia Research Institute, National University of Singapore during June 1-2, 2017.



Ritika Jain

 Presented a paper 'Ownership effects on R&D spending in India: does external borrowing matter?,' at the conference organised by Globelics and sponsored by the National Technical University of Athens, Greece during October 11-13, 2017.

Sunil Mani

- Gave a seminar on 'Industrial robots and manufacturing employment, The Indian Experience,' at 86th GIST Seminar series, National Graduate Institute for Policy Studies, Tokyo, November 20, 2017.
- Presented a paper 'Innovation Capability in New Technologies, Case of Artificial Intelligence across Countries,' with Dr.Yasushi Hara (Hitotsubashi University, Tokyo and National Graduate Institute for Policy Studies, Tokyo) on February 26, 2018.

IN INDIA

Abhilash T

• Presented a paper titled 'Nomadism, Gathering and Uneven Inclusion: Social Exclusion of Malai Pandaram in Kerala,' at the Three days National seminar on Tribal World and Development: Shifting Boundaries and Contested Terrains, organised by C. Achutha Menon Foundation, Thiruvananthapuram and sponsored by Tata Institute of Social Science (TISS) Mumbai at C. Achutha Menon Foundation, Trivandrum during 22-24 March, 2018.

Beena P.L.

 A paper titled 'Outward FDI, Cross-Border M&As and Home-country Employment: Indian Evidence,' was presented at the Labour Conference, organised by 59th ISLE conference and Gulati Institute of Finance and Taxation (GIFT), Thiruvananthapuram during December 16-18, 2017. Discussant of four papers in one session at the Labour Conference, organised by 59th ISLE conference and Gulati Institute of Finance and Taxation (GIFT), Thiruvananthapuram during December 16-18, 2017.

C. Gasper

- Presented a paper 'Policies & Partnerships in Improving Social Demand for School Education in Kerala', at the International Conference on Inclusive Quality Education: Towards SDG 4 and Lessons from the Kerala Experience, organised by Institute of Social Sciences and sponsored by UNICEF, New Delhi, held at the India International Centre, New Delhi during June 17-18, 2017.
- Presented a paper titled 'Financing Medical Education,' at the seminar organised and sponsored by The National University of Educational Planning and Administration (NUEPA), New Delhi on September 16, 2017.

Hrushikesh Mallick

- Presented a paper 'Does Income Inequality Trade-Off with Environmental Quality? A Contrasting Perspective on the Effects of Energy Consumption Patterns among the BRICS Countries' at a seminar organised and sponsored by TERI School of Advanced Studies, during January 18-19, 2018 at New Delhi.
- A paper 'Regional Variations in Per Capita Incomes among a Group of Developing Asian Economies: Role of FDI, Infrastructures and Human Capital' was presented at the International Conference on 'Globalization and Development' organised and sponsored by Department of Economics and Politics, Vidya-Bhavana, Visva-Bharati, Santiniketan, West Bengal during February 23-25, 2018.

S. Irudaya Rajan

 Visited Utkal University, Bhubaneswar to speak on Trends in Indian Migration on May 2, 2017.



- Participated in the Round Table Conference on 'Greying with Grace. Living with Dignity' at National Stock Exchange of India, Mumbai on May 4, 2017.
- Participated as a panellist in the discussion of Equity Fellows Visit to India and presented a paper on 'Migration and Health' at Achuta Menon Centre, SCTIMST, Thiruvananthapuram on May 11, 2017.
- Participated in the advisory committee meeting for the ICSSR study on "Whether Bengaluru will become Smart or Liveable?" held at ISEC, Bengaluru on May 12, 2017.
- Participated as a panellist in Session-5, entitled 'Migration and its Discontents' of the ICRIER's 9thAnnual International G20 Conference entitled "Re-imagining Globalisation: Views from G20 countries" at India Habitat Centre, New Delhi on June 8-9, 2017.
- Participated as a moderator in the plenary session, 'Opportunities and Challenges for Returnee Entrepreneurs in India', in the FICCI consultation Returnee Entrepreneurs Conference with the theme, 'Creating an Enabling Ecosystem for Returnee Entrepreneurs', at New Delhi, hosted by Federation of Indian Chambers of Commerce and Industry (FICCI) and the Hong Kong University for Science and Technology (HKUST) on July 27, 2017.
- Participated in the panel discussion of International Conference on Women Trafficking with the panel topic, 'Ending Impunity for Trafficking Crimes' held at New Delhi on the July 28, 2017.
- Attended as a selection committee member for Career Advancement Scheme (CAS) Promotion at ISEC in the Population Research Centre, Bengaluru on August 4, 2017.
- Presented a paper on 'The effects of the Rural Migration and Urbanisation on the older persons' development', in the two days' roundtable on 'Building

- a society for all ages the issues and concerns of ageing in India' organised by the International Longevity Centre-India, supported by Gharda Chemicals Ltd at Pune during August 18-19, 2017.
- Invited for Professor P. Muthusamy Endowment Lecture on 'International Migration from Tamil Nadu' held at St. Xavier's College Palayamkottai on September 21, 2017.
- Participated in 'India-EU Cooperation Dialogue on Migration and Mobility', sponsored by International Centre for Migration Policy Development, European Union and International Labour Organization on September 26, 2017, at New Delhi.
- Participated in the book releasing ceremony organised by Dr Ramakumar Memorial Ageing Centre, Department of Demography, Kariyavattom Campus on October 9, 2017 at University of Kerala, Thiruvananthapuram.
- Presented a paper on the theme, 'changing the future of migration by investing in food security' on World Food Day Observance, at Kanakakkunnu Palace, Thiruvananthapuram on October 25, 2017.
- Presented a paper on 'Migrants from the Northeast in Kerala' on the national seminar 'Human Trafficking from the North East', organised by North Eastern Social Research Centre (NESRC), Guwahati during November 10-11, 2017.
- Participated as a resource person and lectured on Census Data and Social Science Research Methodology in the Workshop on Research Methodology at Loyola College, Chennai on November 27, 2017.
- Participated in the Advisory Committee Meeting for ICSSR study on 'Whether Bengaluru will become smart or liveable?' at ISEC, Bengaluru on December 8, 2017.
- Delivered a talk on "Ageing Population and its Socio-Economic Impact", in the HR initiatives of Reserve



- Bank of India, Thiruvananthapuram on December 12, 2017.
- Presented a paper on 'Internal Migration in South Asia' in the workshop, 'Effects of interventions on poverty reduction and development for migrants in South Asia' organised by IIT Madras on 13th December 2017.
- Participated in the two-day National Conference on "Social Work approach to Ageing" in Collaboration with Partners in Population & Development (PPD), held at Department of Social Work, Don Bosco Arts and Science College, Kannur on December 15-16, 2017.
- Participated as resource person in the research methodology course on 'Inclusion of Labour in Rural India', organised by Gandhigram Rural Institute-Deemed University at Tamil Nadu in collaboration with V.V. Giri Institute of Labour, NOIDA, and lectured on 'Understanding social cost of labour migration', on January 5, 2018.
- Gave Presidential address to 'International Conference on Ageing Well (ICAW) 2018', sponsored by SCMS group of Educational Institutions, Indian Medical Association, ICAW and HelpAge India at SCMS, Cochin on January 11, 2018.
- Chaired a session on 'Gender and Development' in the National Conference on 'Modernization and Sustainable Social Policy Challenges, Prospects and Strategies', organised by Central University of Tamil Nadu on February 14, 2018, in Tamil Nadu.
- Participated in the Seventh Technical Advisory Committee meeting of Longitudinal Aging Study in India (LASI) MoHFW, New Delhi on February 16, 2018.
- Presented a paper on Kerala Migration at the seminar on Population, Health and Development: Global and National Policy Perspectives organized by International Institute for Population Sciences at YMCA Auditorium, New Delhi on February 17, 2018.

- Participated in the roundtable of 'Diaspora Studies: Issues and Research Prospects' in three-day International Conference on 'Transnationalism, Culture and Diaspora in the Era of Globalisation'at Central University of Gujarat on February 21, 2018.
- Delivered key note address in the inaugural function of NISD sponsored 'National Conference on Emerging Challenges of Elderly: Implementation of Programme and Policy Making' organised by Madras School of Social Work at Chennai on February 26, 2018.
- Delivered a talk on Mapping International Migration: Evidences from Kerala Migration Surveys 1998 – 2018 in the first plenary session of the National Seminar on Narrating Travel, Mapping Identities at University of Kerala, Thiruvananthapuram on March 5, 2018.
- Participated as panellist in two-day International Conference on Migration, Diaspora and Nation Building, Opportunities and Challenges organised by UGG – Human Resource Development Centre, New Delhi and sponsored by ICM and ICSSR in New Delhi during March 7-8, 2018.
- Participated in 'Kerala History Open Forum' on Evolution of Modern Kerala's Political economy in International Festival of Books and Authors 2018, KRITHI 2018, organised by SPCS, Department of Cooperation, Govt. of Kerala at Kochi on March 9, 2018.
- Delivered a talk in the Opening Plenary session "Programme of Ageing in India" of National Colloquium on 'the Aged and the Ageing in India: Where Do We Stand? Whither Should We Proceed?' organised by Centre for Gerontological Studies at Thiruvananthapuram on March 14, 2018.
- Delivered a talk on Migration: Lessons learnt from Kerala Experience in International Conference on Population, Environment and Development (ICPED) organised by Department of Demography at Kariyavattom Campus, Thiruvananthapuram on March 15, 2018.



 Gave special address on Marginalisation of Migrants in Public Policy Making in three-day National Seminar on 'Marginalised Social Groups and Public Policy Making in India', during at Department of Political Science, Kariyavattom Campus, Thiruvananthapuram during March 26-28, 2018.

Jayaseelan Raj

- Participated in the Evaluation of MA students' research projects as a member of the Pre-research Committee, Department of Political Science and Public Administration, St. Johns College, Anchal, Kerala on August 3, 2017.
- Participated in the Second Dalit Conference on 'Post-Colonial Caste and Ambedkar's Anthropology,' organised and sponsored by CSDS, Delhi on December 23, 2017.
- Presented a paper 'Plantation Labour and the Performance of Identity,' at a seminar organised by the Tata Institute of Social Sciences, Patna Centre, at Jagjivan Ram Centre, Patna on January 29, 2018.

K.J. Joseph

- Presented a paper on 'Export-employment Conundrum in India's Manufacturing Sector,' in a workshop on Job Creation in South Asia, June 21, 2017, RIS New Delhi.
- Made a presentation on 'Transforming the South: The Role of South-South and Triangular Cooperation,' in ST&I, in the International Conference on South-South and Triangular Cooperation organised by Ministry of External Affairs, Government of India; United Nations; Forum for Indian Development Cooperation and NeST (Network of Southern Think-Tanks) on August 24-25, 2017, RIS New Delhi.
- Chaired the Inaugural session of '4thIndialics International Conference, on Innovation for Sustainable Development: Perspectives, Policies and

- Practices in South Asia,' November 2-4, 2017, JNU, New Delhi.
- Made a presentation on 'ICT and Employment Challenge in India,' the special session 'Meeting the Employment Challenge in South Asia" organised by RIS, (IHD) under the auspices of the South Asia Centre for Policy Studies (SACEPS) and the South Asia Research Network (SARNET) in the 59th Annual Conference of the Indian Society of Labour Economics (ISLE) Gulati Institute of Finance and Taxation (GIFT), Trivandrum during December 16-18, 2017.
- Delivered a special lecture on 'Agriculture and Sustainable Development: Case of Plantation Agriculture in Kerala,' in the seminar of Kerala Economy organised by the Marian College Kuttikkanam, January 19-20, 2018.
- Delivered the Keynote address on 'Digital Economy and Development India's Experience' in the National Seminar on 'Digital Economy and Development: Opportunities, Impacts and Challenges' on February 26 & 27, 2018, at KMCPGS, Pondicherry.
- Delivered the keynote address on '4th Industrial Revolution and India; Lessons from IT Revolution,' in the International Conference on Innovations, Knowledge Accumulation and Development in the Era of Fourth Industrial Revolution at Punjabi University Patiala during March 15-16, 2018.

Manmohan Agarwal

- Presented a paper 'Assessing Development: Where are the Indian States?,' (with Prof. Amit Shovan Ray) at a seminar organised on the occasion of the Release of Report on Development Index at the CDS on January 17, 2018.
- Presented a paper 'Currency Crisis: Analysing the East Asian Experience' at the Conference on Economic Theory and Policy held at CDS during February 22-23, 2018. (with T.R. Vandan and Srikanta Kundu).



 Chaired the session on 'A Monetary Business Cycle Model of India' and a session on 'Poverty, Growth and Inequality: Revisiting an Old Theme' at the Conference on Economic Theory and Policy held at CDS during February 22-23, 2018.

Parameswaran

- Presented a paper 'Migration, Remittances and Dutch Disease: Evidence from Kerala Economy,' at the Conference on Economic Theory and Policy held at CDS on February 22-23, 2018.
- A paper titled 'Migration, Remittances and Dutch Disease: Evidence from Kerala Economy,' was presented at a seminar organised by Centre for Budget Studies, Cochin University of Science and Technology at the Cochin University of Science and Technology on March 10, 2018.
- Presented a paper (along with K. Pushpangadan) titled 'Terms of Trade, Productivity and Growth in Kerala Agriculture,' at a seminar organised by Centre for Budget Studies, Cochin University of Science and Technology at the Cochin University of Science and Technology on March 10, 2018.

Praveena Kodoth

 Presented a paper 'Gender, Class and the Disempowering Politics of Protection: The Case of India's Migration Policy' The Political Fate of Egalitarian Programmes: A Comparison between India and Brazil, at Council for Social Development (CSD), Hyderabad during March 19-20, 2018.

Ritika Jain

 Presented a paper 'Ownership effects on R&D spending in India: does external borrowing matter?' at the INDIAlics conference sponsored by Jawaharlal Nehru University, New Delhi on November 2-4, 2017.

- A paper titled 'Contributions of State-Owned Enterprises to Exchequer Funds,' was presented at the 13th Annual Conference on Economic Growth and Development- 2016, Indian Statistical Institute, and sponsored by ISI Delhi- IGC, on December 19-21, 2017.
- Presented a paper 'Performance of Public sector enterprises in India,' at a seminar organised and sponsored by Jadavpur University- Economics Department, Kolkata on December 21-22, 2017.
- Presented 'Profitability of State-owned Enterprises in India,' at a seminar organised by CDS on February 22-23, 2018.

Srikanta Kundu

 Presented a paper 'The Volatility and Return Spillovers across Asian Developed and Emerging Economies in Up and Down Market Conditions,' at the 54th annual conference of The Indian Econometric Society (TIES) held during March 07-09 2018, in Shri Mata Vaishno Devi University, Katra, Jammu.

Sunil Mani

- Presented a paper on 'TRIPS Compliance of National Patent Regimes and Domestic Innovative Activity: The Indian Experience' at the World IP Day on Cochin University of Science and Technology on April 26, 2017.
- Gave a lecture on "One size does not fit all" Analysis
 of industrial specific vertical policies for promoting
 high technology industries in India' at the Talk @
 TIMED organised by Sree Chitra Tirunnal Institute
 for Medical Sciences and Technology, Trivandrum on
 April 27, 2017.
- Attended a screening cum evaluation committee meeting for the CAS promotion of eligible faculty members in the Department of Economics, University of Calicut as an expert member on June 6, 2017.



- Delivered John Matthai Memorial Lecture on 'India is increasingly becoming online a cashless in making payments, but are Indians really online and cashless in making payments?' at Dr John Matthai Centre, University of Calicut, Thrissur on January 10, 2018.
- Attended a plenary section at Central University of Kerala in connection with International Conference on India after 25 years of Economic Reforms: What's achieved? What's ahead? and presented a paper 'Moving India towards an Innovation-Driven Economy: Has the Economic Reforms made any Impact?' on March 1, 2018.
- Presented a paper on 'India's Participation in the Global Value Chains of the Aeronautical Industry at a workshop on CDS-IDE-JETRO: Innovation and Global Value Chains of Aeronautical Manufacturing Industry in India on March 14, 2018.
- Delivered the keynote address 'The Diffusion of a Cashless Economy in India: Its Trends and Challenges,' at Kannur University at a two-day national conference on Banks and Access to Financial Services in India- Growth, Issues and Challenges on March 16, 2018.

Udaya S. Mishra

- Presented a paper 'Development of Gender-Specific Human Development Index,' at the EMERGE Workshop on Measures Development and Validation, organised by Centre for Gender Equity and Health, University of California, San Diego at the Hyatt Regency in Delhi on October 23, 2017.
- Participated in the Research Methodology Workshop for Social Scientists organised by Loyola Institute of Social Science Training and Research (LISSTAR), Chennai during November 27-28, 2017.
- Participated in the International Seminar on Quality and Excellence in Higher Education, organised by NIEPA, New Delhi during February 22-23, 2018.

 Attended the workshop 'Capacity Building Programme for Social Science Faculty,' organised by Sardar Patel Institute for Social and Economic Research (SPISER), Ahmadabad on March 19, 2018.

N. Vijayamohanan Pillai

- Participated as the guest of honour for the programme for evaluating the presentations based on the reports submitted by the Scholars at Dissemination Seminar for Internships/Associateships/Projects organised by the Inter-University Centre for Alternative Economics at the Department of Economics, University of Kerala, Kariavattom, Trivandrum on July 19, 2017.
- Delivered the Inaugural Address on 'A Critique of Economic Philosophy from Pre-Classical to New Consensus,' at UGC sponsored Three-Day Workshop on A Critique of Economic Philosophy from Pre-Classical to New Classical, organised by the Department of Economics (Centre for Research) of Arul Anandar College (Autonomous), Karumathur, Madurai, on August 2, 2017.
- Attended the Board of Studies meeting of the Department of Economics, St. Teresa's College (Autonomous), Ernakulam, in the Department of Economics to review the syllabus for both UG and PG programmes on August 7, 2017.
- Presented two papers on 'Measuring Development: Concepts and Methods'; paper 1: Indicators of Poverty and Inequality: Unidimensional and Multidimensional' and paper 2: 'From Growth to human development, happiness and Inclusive wealth: Concepts, methods and Problems' at National Level seminar on Towards Understanding Economic Development: Concepts, Methods and Problems, organised by the Department of Economics, Maharajas College, Ernakulam, and sponsored by the Directorate of Collegiate education, Government of Kerala, during December 14-15, 2017.



- Attended the Board of Studies meeting of the Department of Economics, St. Teresa's College (Autonomous), Ernakulam, in the Department of Economics to review the syllabus for both UG and PG programmes on February 2, 2018.
- Presented a paper on 'Conceptualizing and Measuring Inclusive Growth' at ICSSR-Sponsored Two-Day International Conference on Economic Transformation for Inclusive Growth and Development, organised by the Department of Applied Economics, Cochin University of Science and Technology, Cochin, in collaboration with the Indian Economic Association, during March 16-17, 2018.

Vinoj Abraham

- A paper titled 'Structural Transformation in India' was presented at National Seminar on "Development Process of the Indian Economy: Issues and Challenges" sponsored by RUSA at Bharathidasan Government College for Women, Puducherry on October 10, 2017.
- Presented a paper 'Female Labour Force Participation Rates in India: Inter-regional Variations, Trends and Patterns' at the "Two Day National Seminar on 'Gender Perspectives on Development, sponsored by Department of Collegiate Education, Govt. of Kerala at Govt. Victoria College, Palakkad on November 15, 2017.
- Participated in first Samvaad titled 'Revamping the Statistical Architecture for Robust Data on Jobs in India - A Dialogue on India's Employment Data,' a workshop at Marigold Hall, India Habitat Centre, Lodi Road, New Delhi organized by ICRIER, New Delhi on 11th December 11, 2017.
- Paper titled 'Public Employment Service in India: Technology-based Solutions to Institutional Challenges,' presented at the 59th annual conference of the Indian Society of Labour Economics, sponsored by ISLE and Government of Kerala at the Gulati

- Institute of Finance and Taxation, Thiruvananthapuram during December 16-18, 2017.
- Presented a paper on 'Challenge of Employment and Social Protection,' at the Indian Economic Association Centenary Conference organised and sponsored by the Indian Economic Association at Acharya Nagarjuna University, Nagarjuna Nagar, Guntur, Andhra Pradesh during December 27-30, 2017.
- Presented a paper 'Diversification of Employment in Rural Agricultural Households' at the Sam Moyo Memorial Conference on Land and Labour Questions in the Global South organised and sponsored by Centre for Informal Sector and Labour Studies, SSS, JNU Sam Moyo African Institute of Agrarian Studies State Bank of India, Educational Trust and Action Aid India at the Convention Centre, JNU, New Delhi during February 21-13, 2018.
- A paper 'Long run Employment Growth in India: Does it indicate Jobless Growth or Structural Transformation?' was presented at Workshop on Jobless Growth in South Asia? organised and sponsored by ISI – Delhi and World Bank Group at the Indian Statistical Institute – Delhi Centre on March 8, 2018.
- Presented a paper 'Transformation of Rural Households in India,' at the International Seminar On Developmental Challenges of India after Twenty Five Years of Economic Reforms, organised and sponsored by Banaras Hindu University, Varanasi, Uttar Pradesh during March 16-18, 2018.

Participation of Students in Seminars, Conferences, Workshops

Anurag Anand

 Presented a paper titled 'Economic Reforms and the Patterns of MNE Presence: An Analysis of Indian Manufacturing Sector Since 2000' at Asia Research Centre, Department of International Economics &



- Management- Copenhagen Business School, Denmark on March 15, 2017.
- Participated in RIS-EXIM Bank Summer School on 'Theories of International Trade,' New Delhi during June 18-26, 2017.
- Presented in RIS Summer School on 'Role of FDI in Technological Advancement & Export Performance of Manufacturing Industries: A Case of MNEs in India,' on June 24, 2017.
- Presented a paper titled 'Policy Spree or Policy Paralysis: An Analysis of Technological Activities of MNEs in Indian Manufacturing Industries,' in a Workshop on Science, Technology and Innovation Policy Research at DST Centre for Policy Research IISc-Bangalore during December 11-13, 2017.
- Participated in training on 'Design and Evaluation of Innovation Policies (DEIP)' programme during February 12-16, 2018 at CDS.

Aritri Chakravarty

 Presented a paper 'Differences in Information Acquisition: A Study of Agricultural Households in India' at the Conference on Economic Theory and Policy held at CDS during February 22-23, 2018.

Irfan Ahmad Shah

- Presented a paper 'Welfare Cost of Inflation: Evidence from India,' at the 10th Doctoral thesis conference organised by IBS Hyderabad on April 20-21, 2017.
- Presented a paper titled 'Monetary Policy: Its Changing Objectives, Instruments and Results' at the 54th Annual Conference of The Indian Econometric Society (TIES) held in Shri Mata Vaishno Devi University, Katra during March 7-9, 2018.

John Kujur

 Presented a paper 'Marginalisation of the Displaced due to 'development': The Case of the Displaced Tribal Population of Rourkela,' in National Seminar on *Tribal Displacement and Resettlement: Problems and Challenges,* at Kerala Institute for Research Training and Development Studies (KIRTADS), Kozhikode during February 26-27, 2018.

Madhusudan Nag

- Successfully completed the Certificate Course on 'Social Exclusion and Inclusive Policy' held at Centre for Development Studies (CDS) during October-November 2017.
- Presented a paper 'Employment related short-term Family Migration in India: Analysis from Macro and Micro Evidence,' in the Indian Society of Labour Economics 59th Annual Conference held at Gulati Institute of Finance and Taxation, Thiruvananthapuram during December 16-19, 2017.
- Successfully completed the ICSSR Sponsored Capacity Building Programme on 'Pathways of Social Research: A Methodological Training,' held at Centre for Development Studies (CDS) during January 8-12, 2018.
- Presented a paper titled 'Reflection of Private Sector Activities on Trade and Current Account: An Empirical Scrutiny' at the UGC-SAP (DRS-II) sponsored International Conference on Globalization and Development organised by Department of Economics and Politics, Viva-Bharati, Santiniketan, West Bengal during 23 February to 25 February 2018.
- Presented a paper titled 'Short Term Family Migration in India: An Analysis from Macro and Micro Level Evidence,' in the poster category at the International Seminar on Population, Health, and Development: Global and National Perspectives, organised by International Institute for Population Sciences at New Delhi YMCA during February 15-17, 2018.
- Participated in the 'Budget Awareness Workshop' conducted by Gulati Institute of Finance and Taxation



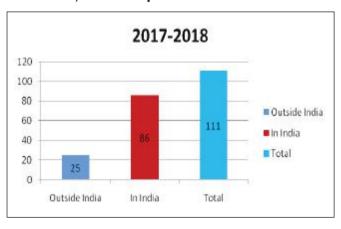
(GIFT), Thiruvananthapuram during January 19-20, 2018.

- Participated in the Workshop on 'Doing Ambedkarism Today: Issue of Caste, Gender and Community,' organised by the Centre for Studies in Social Sciences, Calcutta (CSSSC) at Kolkata, West Bengal and sponsored by the Indian Council of Social Sciences Research (ICSSR) from February 19 to February 22, 2018.
- Participated in the National Seminar on 'Inter-State
 Migrant Workers in Kerala: Labour and Civic Life,'
 jointly organised by Loyola College of Social Sciences,
 Thiruvananthapuram and Labour and Migration Unit,
 Indian Social Institute, Bangalore at Loyola College
 of Social Sciences, Thiruvananthapuram during March
 7-8, 2018.

Yadu, C.R.

 Presented a paper 'Local Dynamics of Macro-Level Changes: Agrarian Transition in India from a Dialectical Perspective,' in the International Conference on 'Development, Agrarian Change and Gender in India: Exploring Interdisciplinary Approaches', at Gujarat Institute of Development Research, Ahmedabad on February 6-7, 2018.

Participation of Faculty in Conferences, Seminars, Workshops elsewhere



(D) SERVICES TO ACADEMIC COMMUNITY

(a) Representation in Committees/Task Forces/Advisory Bodies

Member of Committees

Devika, J

- Member, Reference Group, SASNET (Swedish Network for South Asia Studies).
- Member, Board of Studies, Social Science, Malayalam University, Kerala.
- Member, Translations Project Committee, Malayalam University, Kerala.

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

- Commission Member, Model International Mobility Convention, Global Policy Initiative, Columbia University, New York.
- Member, Global Migration Group, Foundation for European Progressive Studies, Brussels.
- Expert Committee member, Longitudinal Aging Studies in India (LASI).
- International Advisory Board, Asian Population Studies (Taylor and Francis).
- Member, Board of Studies, Department of Demography, University of Kerala.
- Member, Governing body, Southern Regional ICSSR Centre, Hyderabad.
- Co-chairperson of the working group on NORKA, Government of Kerala, Thiruvananthapuram.



Jayaseelan Raj

 Member, MA Evaluation Committee, St. Johns College, Anchal.

K.J. Joseph

- Chairman: Globelics Governing Board.
- Global Expert on Innovation Studies: Tianjin University of Finance and Economics.
- Visiting Professor, Panjabi University Patiala.
- Visiting Professor, Punjab University, Chandigarh.
- 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, 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.

N. Vijayamohanan Pillai

 Subject Expert of Board of Studies of St. Teresa's College (Autonomous), Ernakulam.

- Member of the Advisory Board of TKM Institute of Management, Kollam.
- 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 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, Executive Committee, Indian Society of Labour Economics.

Teaching/ Co-ordinating /Training Programmes and External Teaching

Abhilash T

- Conducted a one day workshop on 'Merger of Plan and Non-Plan Expenditure and Future of Scheduled Caste Sub-Plan (SCSP) and Tribal Sub-Plan (TSP)' sponsored by NITI Aayog, at the CDS on August 19, 2017.
- Co-ordinated (along with Jayaseelan Raj) a training programme on 'Pathways of Social Research: A Methodological Training,' sponsored by the ICSSR consisting of 46 participants at the CDS during January 5-9 and March 5-9, 2018.
- Took one session on 'Ethics in Social Science Research' at the training programme on Pathways of Social Research: A Methodological Training, sponsored by the ICSSR and held at the CDS on March 7, 2018.



Beena P.L

- Presented a paper 'Is there Complementarity between Aid, Trade and FDI from India?,'at an Open seminar at CDS, Trivandrum, on August 11, 2017 (with Meena Abraham Chacko).
- A paper 'India's Outward Foreign Direct Investment under WTO Regime: Trends, Determinants and Implications,' was presented at an Open Seminar at CDS on March 16, 2018.

Chandril Bhattacharyya

 Presented a paper 'Unionised Labour Market, Environment and Endogenous Growth,' at the Conference on Economic Theory and Policy held at CDS on 22nd February 2018.

Devika, J

- Co-ordinator of the CDS-ACJ Workshop on Development Research and Reporting on the Local, organised in collaboration with Asian College of Journalism, Chennai at CDS during April 29-30, 2017.
- Co-ordinator of the RULSG Round Table on Human Diversity- Friendly Local Self-Governments: Realizing LGBTQI Rights in Kerala's Panchayat Raj, conducted at the CDS in May 2017.
- Co-ordinated a Workshop on Local Government Budgets and Local Governance: The Kerala Case, held at the CDS on November 30, 2017.
- Conducted a One-day RULSG Consultation Process in preparation of the roundtable on Utilizing the funds earmarked for Women's Development on March 28, 2018.

Hrushikesh Mallick

 Delivered a lecture (one session) at 12th Short-term Training Programme on Methods and Approaches on Research on Migration Issues, organised by the CDS during November 20-24, 2017.

S. Irudaya Rajan

- Co-ordinator (with US Mishra) of the 'Twelfth Short Term Training Programme on Methods and Approaches in Research on Migration Issues,' sponsored by Rajiv Gandhi National Institute of Youth Development (RGNIYD), Chennai and Loyola Institute of Social Science Training and Research (LISSTAR), Chennai, with a total of 35 participants during November 20 -24, 2017.
- Delivered one session at the Capacity Building Programme 'Pathways of Social Research: A Methodological Training', sponsored by the ICSSR during January 8-12, 2018.
- Delivered one session at the Capacity Building Programme 'Pathways of Social Research: A Methodological Training', sponsored by the ICSSR during March 5-9, 2018.

Jayaseelan Raj

- Coordinator of Niti-Ayog Consultation Workshop on 'Merger of Plan and Non-plan Expenditure and Future of Scheduled Caste Sub-Plan (SCSP) and Tribal subplan (TSP)' conducted at the CDS on August 19, 2017.
- Co-ordinator of the ICSSR Capacity Building Programme, consisting of Thirty students from various universities across India, sponsored by the ICSSR at the CDS during 8-12, January & 5-9, March, 2018.
- Took two sessions at the training programme 'ICSSR Capacity Building Programme,' sponsored by ICSSR and conducted at the CDS during 8-12, January & 5-9, March, 2018.

K.J. Joseph

 Delivered a lecture on 'Changing Perspectives in the Theory and Empirics of Trade and Technology,' in the Refresher programme from Ph D scholars, in the RIS-EXIM Bank of India Summer School on International



- Trade Theory and Practices, June 19-24, 2017, RIS, New Delhi.
- Presented a paper 'Turnaround in China's interregional Inequality in Development? An Innovation System Perspective,' at an Open Seminar at the CDS on October 6, 2017.

Manmohan Agarwal

- Participated in the panel discussion on the Indian Economy in the context of the Economic Survey 2018 and the Union Budget and contributed the section on "State of the Economy" in the forthcoming "Commentary on India's Economy and Society Series-1 "Dimensions of India's Economy: As seen through the Economic Survey 2017-18 and the Union Budget 2018-19" on February 6, 2018.
- Co-ordinated the two-day conference 'Economic Theory and Policy' held at the CDS on February 22&23, 2018. 14 papers were presented, 6 by members of CDS and 8 from other institutions.

M. Parameswaran

 Presented a paper 'Assessing Development: Where are the Indian States?,' (with Prof. Amit Shovan Ray and Prof. Manmohan Agarwal) at a seminar organised on the occasion of the Release of Report on Development Index at the CDS on January 17, 2018.

Srikanta Kundu

 Took three sessions at the Research Methodology Course in Social Science for PhD Students, organised by Tezpur Centre of Indian Statistical Institute, Tezpur, Assam and sponsored by ICSSR during January 15-25, 2018.

Sunandan Ghosh

 Presented a paper 'Enlargement Decisions of RTBs with Asymmetric Members,' at the Economic Theory

- and Policy Conference held at the CDS on February 23, 2018.
- Took one session on 'Emerging Issues in International Economics' at the ICSSR Sponsored Research Training Programme, sponsored by the ICSSR at the CDS on March 6, 2018.
- Participated in the panel discussion on the Indian Economy in the context of the Economic Survey 2018 and the Union Budget and contributed the section on "External Sector" in the forthcoming Commentary on India's Economy and Society Series 1 "Dimensions of India's Economy: As seen through the Economic Survey 2017-18 and the Union Budget 2018-19" on February 6, 2018.

Sunil Mani

- Gave a lecture on 'Diffusion of automation technologies and their potential and actual effects on manufacturing employment in India, case of India's automotive manufacturing industry' at IGIDR on Project on Industrialisation for jobs and growth workshop on labour-intensive manufacturing in India on July 19, 2017.
- Gave a lecture on Diffusion 'Changing faces of direct taxation in India' at the Income Tax Day celebrations held at Aayakar Bhavan, Kowdiar, Thiruvananthapuram on July 24, 2017.
- Gave a lecture on 'Dimensions of India's Innovation Performance' at Think Tank Executive Lecture at HLL Corporate Office Akkulam, Thiruvananthapuram on August 2, 2017.
- Gave a lecture on 'Good Practices in Social Science Research: A Journey from conceptualization to Research Application,' at CTCRI, Thiruvananthapuram on August 7, 2017.
- Conducted a workshop "Consultation on the Aviation Industry" at the CDS on August 9, 2017.



- Presented a paper 'Diffusion of Automation Technologies in India's Manufacturing Industry, Implications for Manufacturing Employment' at an Open Seminar at CDS on August 18, 2017.
- Gave a lecture on 'The challenges of serving users in an online world,' at the Alumni Association of the Department of Library and Information Science (AADLIS) University of Kerala on August 19, 2017.
- Gave a lecture to PGP-X programme at the IIM Calcutta on September 4, 2017.
- Gave a series of 15 lectures on 'Innovation and Technology Policy,' at the National Graduate Institute for Policy Studies, Tokyo, October 23- November 24, 2017.
- Taught 'New Methods in Innovation and Technology' at ICSSR sponsored Capacity Building Programme – Pathways of Social Research: A Methodological Training at the CDS on January 8, 2018.
- Participated in the panel discussion on the Indian Economy in the context of the Economic Survey 2018 and the Union Budget and contributed the section on "Science and Technology" in the forthcoming Commentary on India's Economy and Society Series-1 "Dimensions of India's Economy: As seen through the Economic Survey 2017-18 and the Union Budget 2018-19" on February 6, 2018.
- Co-ordinated the training programme 'Design and Evaluation of Innovation Policy' with Anthony Arundel, UNU-MERIT Maastricht, The Netherlands, consisting of 43 participants, (supported by course fees paid by participants) held at the CDS during February 12-16, 2018.
- Took a class on 'Measuring Innovations Conventional Indicators' on February 12, 2018, and Stimulating Investment – Research and Development Tax Credit on February 14, 2018, during the DEIP training programme conducted at the CDS.

Vijayamohanan Pillai, N

- Took eight lecture and computer sessions on Simultaneous equation methods, Limited dependent variable models and time series analysis Four-Day National Workshop on Advanced Topics in Econometrics, organised by the PG and Research Department of Economics, Zamorin's Guruvayurappan College, Kozhikode during April 25-26, 2017.
- Delivered twelve lecture and computer sessions on Discrete Choice Models during 23 – 26 May 2017 at Faculty Development Programme, organized by the Gokhale Institute of Politics and Economics, Pune, from 23 May to 7 June 2017.
- Delivered the Inaugural Address on 'The Role of Mathematics in Economics,' and inaugurated the Diamond Jubilee Celebrations of the Department of Economics of Mar Athanasius College, Kothamangalam on July 21, 2017.
- Delivered four lecture-cum-computer sessions on Panel Data Econometrics at the Two-Day Workshop on 'Time Series and Panel Data Econometrics', organized by the XIME, Bangalore on July 29, 2017.
- A special Talk on 'Math Applications in Economics', organised by the PG Economics Association of the PG and Research Department of Economics of the American College, Madurai, in the afternoon of 2 August 2, 2017.
- Delivered twelve lecture-cum-computer sessions on Time series Econometrics and four special lectures to the PG students on the topic *Fundamentals* of *Econometrics* at the Three day National Seminar on 'Time Series Analysis for Advanced Research in Economics' sponsored by Directorate of Collegiate Education and organised by the Post Graduate Department of Economics, Krishna Menon Memorial Government Women's College, Kannur on September 28, 2017.



- Delivered four lecture sessions on Qualitative Research at the National Workshop on 'Introduction to Qualitative Research,' organised by the TKM Institute of Management, Kollam, Kerala, on October 21, 2017.
- Delivered three lecture sessions on Basic econometrics at the One-day workshop on Econometrics organised by the Kerala Economic Association under the aegis of the PG Department of Economics, St. Aloysius College, Elthuruth, Thrissur on October 26, 2017.
- Delivered eight lecture-cum-computer sessions on Time series econometrics at the Five-day National Workshop on 'Applications of Econometric Tools for Research,' organised by the School of Management Studies, Cochin University of Science and Technology, Kochi on November 20 and 21, 2017.
- Delivered four lecture-cum-computer sessions on 'Panel data econometrics and Decision making' at the Two-week FDP on 'Data Science and Decision Making Processes,' organised by SCMS School of Technology and Management, Cochin, Kerala and sponsored by the AICTE during on December 1, 2017.
- Delivered eight lecture-computer sessions on 'Descriptive Statistics, Hypothesis Testing, and Regression Analysis Using Gretl,' at the ISTEsponsored Three-Day National Workshop on 'An Introduction to Data Analysis Using Statistics' organised by the Department of Mechanical Engineering, Mar Athanasius College of Engineering, Kothamangalam during January 22-24, 2018.
- Participated in the meeting of the Research Advisory Council of the Energy Management Centre, Trivandrum, and evaluated the first draft of the research report on "End-Use Energy Efficiency in Residential Sector" at EMC, Sreekaryam, Trivandrum on January 27, 2018.

- Attended the Board of Studies meeting of the Department of Economics, St. Teresa's College (Autonomous), Ernakulam, in the Department of Economics to review the syllabus for both UG and PG programmes on 2 February 2, 2018.
- Delivered a lecture on 'Applied Regression Analysis' as part of the Colloquium Series of the MBA Programme at the Amrita School of Business, Kochi, and attended as an evaluator in the Qualifying Viva Voce of two PhD scholars there on February 8, 2018.
- Attended as a resource person in the XXVII Refresher
 Course in Economics organised by the UGC-Human
 Resource Development Centre of University of Kerala
 at Karyavattom Campus during 1-21 February 2018
 and gave two lecture sessions on 'Energy sector in
 India' on February 6, 2018 and two lecture-cumcomputer sessions on 'Regression Analysis with Gretl'
 on February 10, 2018.
- Delivered four lecture-cum-computer sessions on 'Time-series Analysis,' at the Ten-Day Workshop On Research Methodology and SPSS in Social Science, organised by the Department of Commerce of Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, and sponsored by the Indian Council of Social Science Research, during on February 17, 2018.
- Attended as an evaluator at the Ph D proposal presentation seminars on 19 and 20 February 2018 and delivered four lecture-cum-computer sessions on Sampling techniques, Scaling methods and Regression analysis with Gretl on 21 February 2018 at Six-day national level workshop on "Research Methodology and Quantitative Techniques in Social Sciences", organized by the Department of Economics of the Central University of Kerala, Periye, Kasaragod during February 19-24, 2018.
- Taught eight lecture-cum-computer sessions on 'Panel data analysis,' at Faculty Development



Programme on 'Multivariate Data Analysis,' organised by the Department of Economics, Government Engineering College, Thrissur, and sponsored by the Directorate of Technical Education, Government of Kerala, February 22 & 23, 2018.

- Gave four lecture-cum-computer sessions on 'Panel data analysis' at the Two-Day Workshop on 'Time-Series and Panel Data Econometrics,' organised by XIME, Bangalore, on February 24, 2018.
- Delivered the Keynote address in the inaugural session on 'The Rationale of Quantitative Techniques in Social Science Research' at Three-day National workshop on 'Hands on Training in Quantitative Data Analysis', organised by the Dept. of Economics, University of Kerala during March 12-14, 2018.
- Delivered two lecture-cum-computer sessions on 'Applied Statistics, ' at the Short Term Course on Modelling Transport in Smart City Context, organised by the Transportation Engineering Research Centre of the Department of Civil Engineering, College of Engineering, Trivandrum, on March 15, 2018.
- Delivered twenty lecture-cum-computer sessions at the Five-Day State level Training Programme on 'Statistical Package for Social Sciences', organised by the Women's Studies Centre at Cochin University of Science and Technology from 19th to 23rd March, 2018.
- Delivered eight lecture-cum-computer sessions at Two-Day Workshop on 'Panel Data Analysis', organised by the Narayan Zantye College of Commerce, Bicholim, Goa, during March 27-28, 2018.

Vinoj Abraham

 Co-ordinated along with Darley Jose Kosawick (Norwegian partner) a Workshop on "State and Civil Society in Development and Environmental Governance in India, Kerala" conducted for 18 Post

- Graduate students from Department of International Development, Norwegian University of Life Sciences, organised at CDS Trivandrum during 28th August to 4th September 2017.
- Gave one session at the State and Civil Society in Development and Environmental Governance in India, Kerala sponsored by Norwegian University of Life Sciences and organised by CDS, Trivandrum during 28 August to 4th September 2017.
- Took one session at the workshop on Migration Training sponsored by the ICSSR and organised by the Centre for Development Studies, Trivandrum during November 20-28, 2017.
- Associate conference coordinator of the Indian Society of Labour Economics 59th conference held at GIFT, Thiruvananthapuram, Kerala, organised by the Indian Society of Labour Economics, and Gulati Institute of Finance and Taxation, Thiruvananthapuram in partnership with CDS Trivandrum and Kerala University Kerala, funded by ISLE, Government of Kerala during December 16-18, 2017.
- Gave one session at a workshop on Research Methods for social science, sponsored by the ICSSR and organised by Centre for Development Studies, Trivandrum during January 8-12, 2018.
- Delivered two sessions at the one day workshop on Research Methods for Social Science organised and sponsored by Dept. of Economics, John Mathai Centre, Calicut University on January 11, 2018.
- Took two sessions at the workshop on 'Hands on Training in Quantitative Data Analysis' organised by Dept. of Economics, University of Kerala at Karyavattom campus during March 12-14, 2018.
- Delivered three sessions at the Capacity Building Programme for Social Science Faculty Members organised by Sardar Patel Institute for Economic and Social Research, and sponsored by ICSSR at SPIESR, Ahmedabad during March 19-28, 2018.



(b) Other Professional Services Rendered

J. Devika

- Member, Editorial Board, Indian Journal of Gender Studies.
- Member, Editorial Group for Women's Studies Special Issues, Economic and Political Weekly.
- Member, Editorial Board, Review of Development and Change.

Beena, P.L

 Evaluated one M. Phil dissertation submitted at JNU, 2017.

S. Irudaya Rajan

- Editor, Migration and Development since 2012, Taylor and Francis.
- Series Editor, India Migration Report since 2010, Routledge.
- 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.

Hrushikesh Mallick

 Panellist at the panel discussion on 'State of the Economy and the Union Budget-2018-19' held at the CDS on February 6, 2018.

- Associate Editor (2014) World Review of Business Research (WRBR), Australia.
- Member of editorial board (2014) World Economy Study, International Academic Publishing Inc. (USA).
- Member of editorial board (2015) Migration and Development, CDS, Routledge Publication.
- Editorial Review Board member "Amity Journal of Economics (AJECO)", Amity Directorate of Management & Allied Areas (ADMAA), Amity University.

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.

M. Parameswaran

 Give talk on Union Budget and Economic Survey and Union Budge 2018 at Department of Economics, KSMDB College, Sasthamcotta on 8th February, 2018.

Praveena Kodoth

- Peer-reviewed papers for Modern Asian Studies, Development and Change and Higher Education for the future – Journal of the Kerala State Higher Education Council.
- External Evaluation of Ph D thesis for JNU (Department of History), Re-evaluation of Ph D thesis of Delhi School of Economics (Department of Sociology).



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.

Vijayamohanan Pillai, N

- Member, World Economics Association (WEA).
- Member, Scientific Committee of the Journal of 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.

Reviewed articles for the following journals:

- Economic and Political Weekly.
- Journal of Quantitative Economics
- Migration and Development Journal.
- American Journal of Theoretical and Applied Statistics.
- Innovation and Development Journal.

Vinoj Abraham

- External Examiner for PhD thesis for ISEC, Bangalore under Mysore University 2017.
- Member, Evaluation team for Social Science Projects from 2017 for the Indian Statistical Institute, New Delhi.
- Associate Editor, Indian Economic Journal.

(c) Host to Walk with Scholar Programme

Walk with a Scholar (WWS) scheme proposes to arrange specialized mentoring programmes for students in Under Graduate Programmes in Arts, Science and Commerce and to provide guidance for their future. The scheme introduces the idea of mentoring and builds on the concept of a mentor as a 'Guide' and 'Friend'.

The mentoring scheme will be open for all students entering the first year of the Under Graduate Programme of Study. It aims at giving necessary orientation to needy students, to prepare them for employment and give them necessary guidance, motivation and necessary mental support to identify appropriate areas for higher study as well as employment.

The mentoring scheme should be planned to identify the opportunities available for the scholars, the areas suitable for them, the manner in which the scholar should proceed before them and evolve ways by which they can be acquired. The following groups of students visited the CDS under the WWS programme.



A group of 30 post-graduate students from St. Thomas College, Thrissur visited the library on 4th August 2017. A group of 23 students and 2 teachers from John Mathai Centre, University of Calicut, Thrissur visited the library on October 28th,2018. A group of 30 students each from Providence Women's College, Kozhikode, Ambedkar Govt. College, Malappuram, Sree Narayana College, Chengannur and Nehru Arts and Science College, Kanhangad visited the library on 5th April, 16th and 20th June 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.

AWARDS AND ACCOLADES

Dr. Abhilash T was awarded the *Inequality and Poverty Programme Fellowship-2017*, from the London School of Economics, sponsored by Department of Anthropology, LSE

and the Department of Development Studies, School of Oriental and African Studies (SOAS) during November-December, 2017.

Mr. Panchendra Kumar Naik, former Ph.D scholar at CDS and Ms. **Sonal Dsouza**, alumni of CDS won this year's Sanjay Thakur Young Labour Economist Award, instituted by the Indian Society of Labour Economics (ISLE) for the best paper entitled "Trade Liberalisation, Capital-Intensive Export and Informalisation: A Case Study of India's Manufacturing Export" presented in the 59th Annual Conference of the ISLE held at the Gulati Institute of Finance and Taxation (GIFT), Thiruvananthapuram, Kerala during 16-18 December 2017.

Mr. Sanjaya Kumar Malik (2010-2016 Batch) is appointed as Assistant Professor at Institute for Studies in Industrial Development (ISID), Delhi.

4

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 189 scholars who were admitted during 1975-2017, **87** scholars have been awarded PhD Degree: 78 from JNU and 9 from KU. **7** theses are under evaluation at JNU; **35** scholars are now in campus. **25** scholars are De-Registered from the programme for employment, etc., **3** scholars are Re-Registered for submission of their thesis and **32** scholars discontinued from the programme to join elsewhere.

Overview of the Year

2017 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. 10 candidates were admitted in 2015 for the Integrated MPhil/PhD programme. One student discontinued from the programme for personal reason. Two students joined the PhD programme after their coursework. The other seven students are likely to submit their MPhil thesis by June 2017. They will be automatically eligible for admission to PhD programme (Provisional) in 2017, as per JNU regulations. Mr. Himanshu Arora discontinued from the PhD programme after getting a job at New Delhi.

The registration is granted per semester, after due review of progress. In addition, the scholars are to seek confirmation of registration in three semesters after a rigorous process involving both internal and external reviews of their study proposals and an adjunct paper. After obtaining confirmation and completing the core aspects of the study, scholars can also choose to take up employment with provision for re-registration later, for submission of thesis. Financial support is through doctoral fellowships of the ICSSR, UGC, RGNF, Government of Kerala for



SC/ST students and CDS Endowments. Scholars are also provided financial assistance for participation in national conferences and seminars. Centre's scholars do get early exposure to international research initiatives and academia through major events abroad.

As on 31 March, 2018 SEVEN theses were under evaluation at JNU:

- Impact of International Food Safety Standards on Exports of Fish and Fishery Products from India: The Case of Kerala.
 - **Jayasekhar S.** 2005-, Government of India Supervisors: K. N. Harilal & M. Parameswaran
- Explaining Differential Health Outcomes across Indian States: An Enquiry from a Health System Perspective.
 Nutan Shashi Tigga, 2012.,-, UGC – JRF Supervisors: U. S. Mishra & S. Irudaya Rajan
- 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
- Institutions, Innovations and Inclusive Development:
 A Study of Select Plantation Crops in India.
 Namrata Thapa, 2011

Supervisor: K. J. Joseph

 Informal Labour Migration in India: Consequences on Labour Market at Destination and Origin.

Mohd. Impran Khan, 2011

Supervisors: S. Irudaya Rajan & Vinoj Abraham

 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
 Supervisors: N. Vijayamohanan Pillai & V. Santhakumar

SIX scholars have been **awarded PhD degree** by JNU during this period:

- Technological Changes in India's Pulp and Paper Industry.
 - **Sandeep Kumar Kujur** 2009 -, *UGC-JRF* Supervisors: Sunil Mani & M. Parameswaran
- Transnational Linkages and Organisation of Care for the Aged: Experiences from Central Travancore, Kerala.
 Sreerupa, 2006 -, ICSSR Fellowship
 Supervisor: S. Irudaya Rajan
- Migration and Production of Space: Labour, Capital and the State in Kerala, India
 Mythri Prasad 2006 -, ICSSR Fellowship.
 Supervisors: K. N. Harilal & Praveena Kodoth
- The Role of Innovations in Inclusive Development:
 The Case of Banking Industry in India.

 Kiran Kumar Kakarlapudi 2010-, ICSSR Fellowship.
 Supervisors: K. J. Joseph & Vinoj Abraham
- Technological Change in Capital Goods Sector: The Case of India's Textile Machinery Industry.
 Sanjaya Kumar Malik, 2010-, ICSSRFellowship Supervisors: Sunil Mani & M. Parameswaran
- Examining Educational Progress in India: Characteristics and Consequences.
 Vachaspati Shukla 2010-, ICSSR Fellowship Supervisor: U. S. Mishra

PhD Thesis of Sandeep Kumar Kujur (2009)

 Technological Changes in India's Pulp and Paper Industry.

Supervisors: Sunil Mani & M. Parameswaran

This dissertation studies the pulp and paper (P&P) industry in India. Analysis of the evolution, structure, growth and nature of India's P&P industry revealed two important recent developments. First, acceleration in the growth of the industry. Compared to the moderate growth rate recorded earlier, the industry registered a double-digit growth rate



during the period 2001 to 2013. Second, input structure of the industry has undergone some major changes during the last five decades from 1961 to 2011. The industry witnessed a drastic decline in its energy intensity, which is defined as the energy required to produce one unit of output. Another crucial development is the change in the composition of the raw materials consumption. The industry largely moved away from using wood-based raw material to recycled paper (RCP)-based raw materials. Both of these developments have direct implications for environmental sustainability in terms of lower CO₂ emission and resource conservation. Against this background, the present study examines the growth dynamics (growth drivers, and degree of value addition), and sustainability issues (energy efficiency, and sustainability of material use) of the P&P industry in India.

In the analysis of the growth drivers of the industry, the study focuses on the role of trade and factor inputs in driving the growth of the industry both in the short run and long run. For this, we employed augmented production function approach based time series econometric methods, specifically multivariate Johansen test of Cointegration and the Vector Error Correction Model (VECM). We used annual data from ASI and FAOSTAT from 1961 through 2011. The results of the Johansen test of cointegration and VECM in both the aggregate output model and the aggregate output net of exports model suggests the existence of a long-run relationship between the output, and capital, labour, energy, material, import and export. The results of short-run dynamics in both the models reveal that the imports of final paper and paper products to meet the burgeoning demand substitute the domestically produced paper and paper products. The inclusion of production function variables into the analysis reveals that the output of the industry is induced by the efficient use of energy. Next, the study considers the sustainability of growth by measuring the extent of value addition in the P&P industry as a whole and in its three different raw material-based sectors, namely wood-based, agro-based, and RCP-based P&P sectors. Analysis using ASI data reveals that the extent of value addition in the P&P

industry and its different raw material based sectors is always higher than the aggregate manufacturing industry in India. It is also observed that although the degree of value addition in the aggregate manufacturing industry was declining all through the study period of 1999-2010, the degree of value addition in the P&P industry and its three raw material based sectors was steadily increasing until its recent fall after 2008. Further, the application of simple decomposition method shows that the wood-based and RCP-based sectors account for a larger share in the degree of value addition in the P&P industry in India during the period 2000-2010. However, the percentage contribution of the wood-based sector is declining, and it has been offset by the rising contribution of the RCP-based sector.

In the analysis of energy efficiency, the study uses ASI data and applied Log Mean Divisia Index (LMDI) to decompose the change in the total energy consumption into three factors, namely (i) change in the scale, (ii) change in the structure, and (iii) change in the energy intensity. The results show that both change in scale and structure enhanced the energy consumption while change in energy intensity reduced the energy use in the P&P industry in India during 2000-2010. In addition to this, the study examined the determinants of energy intensity of the P&P industry in India and its different raw material based sectors using panel data econometric methods. Here we considered the impact of traditional input variables (capital intensity, labour intensity, indigenous material intensity and imported material intensity), advanced input variables (services intensity, ICT intensity, and pollution control equipment intensity), and industry level factors (profit intensity, vertical integration, and energy price).

For analysing the material consumption of the industry, the study uses secondary data from ASI and information collected from a field survey. The first part of the analysis uses LMDI method to decompose the change in the total material consumption into three components, namely (i) scale effect, (ii) structural effect, and (iii) material intensity effect. The results show that all the three factors contributed to the observed increase in the material consumption in the industry during the period 2000 to 2010. The second part of the



analysis investigated the sustainability of raw material use in the industry. Here, it is shown that the industry in India has moved away from using conventional forest-based raw material to unconventional input-efficient and environmentally benign RCP-based raw material. Using the inputs from field survey, the study also examined the sources and sustainability of the wood-based, agro-based, and RCP-based raw materials used in the P&P industry. On the whole, this thesis offers a comprehensive understanding of the growth dynamics and sustainability issues of the P&P industry in India.

PhD Thesis of Sreerupa (2006)

 Transnational Linkages and Organisation of Care for the Aged: Experiences from Central Travancore, Kerala.

Supervisor: S. Irudaya Rajan

This thesis studies the interconnections between transnational migration, ageing, and care. Applying transnationalism and cultural relational work theory, the thesis examines firstly, transnational migration and its multiple linkages to the organisation of care for older persons staying behind; secondly, an increasing subjection of elder care to market forces; and finally, the tensions inherent in the marketisation of care. Using ethnographic methods, the study engages with these issues in an empirical setting in Central Travancore, Kerala that is both at the forefront of ageing and has witnessed high levels of transnational migration. The study was conducted in a predominately Syrian Christian locality experiencing an increasing marketisation of care.

This research takes some unique departures from the existing studies in transnationalism literature by studying transnational processes through an analysis of the everyday lives and practices of those who do not necessarily move but are implicated in transnational mobilities. This study further nuances our analysis of transnationalism by employing the local cultural specificities of care to enrich our understanding of the transnational processes. By taking up the analysis of a non-standard market for elder care services, the study extends our understanding of how culture shapes economic transactions.

Empirical material from Tirunadu has shown that transnational migration has catalysed transformative changes in the organization of elder care through influences on the care infrastructure. Firstly, through the spatial reorganisation of care through family-market nexus of care provisioning; secondly, through the growth and expansion of the local elder care market and finally, through facilitating the church's quasi-marketised care initiatives by means of funding and transport of ideas.

Another significant contribution of the thesis was to show that each aspect of organization, provision and marketisation of elder care was not free from dichotomisation of the sphere of care and economy. The study demonstrated that intimacy and economic transactions often coexisted without harm through a discussion of the close association between elder care responsibilities and practice of inheritance; the presence of interpersonal relations, trust and intimacy within paid care relations; and place-making and reimagining of 'for pay' old age homes. Finally, the thesis engages with how the care workers are implicated in the construction of opposite worlds of care and work.

PhD Thesis of Mythri Prasad, (2006)

Migration and Production of Space: Labour, Capital and the State in Kerala. India

Supervisors: K. N. Harilal & Praveena Kodoth

This study concerns the broad theme of political economy of migration. Combining critical geography and political economy to form an analytical framework, it examined migration as a process that transforms capitalist social space. Migration of workers to Kerala from North and Northeastern India signalled a change in the social relations of production. These migrations occurred along with new production networks, state-capital conjunctures and cultural and ethnic mixing. Researching migration for work necessitated looking closely at these changes in economic and social relationships.

The study attempts to understand a) how state and capital produce the (social) space in which migrant workers and



the local Malayali workers find each other and b) how the agency of the workers at once contributes to this production of space and resists the power of capital and state. This requires recognizing that labour migrations have their underpinnings, besides in local, microstructures of economy and society, in the larger, global system. The study conceives of an analytical framework built upon elements of political economy and critical geography and uses ethnographical fieldwork as method. It is based on fieldwork in a port building site in Vallarpadam and nearby islands in Kochi and a pavement market in Perumbavoor, a small town near Kochi where migrant workers congregate on Sundays. The port building site, managed by capital that is global and heterogeneous represents a reorganization of space carried out by the state. The Sunday market, on the other hand, is a more complex site where the agency of the migrant labour and that of the state produce a convivial yet politically contested space.

Labour recruitment for the port building involved both local recruitment through trade unions and long-distance migration. The port building changed agro-pastoral livelihoods and involved displacement, institutional change in the port and entry of transnational capital and establishment of a subcontracting chain. Such change in state-market-society relations is important in understanding the complex nature of labour recruitment. Labour recruitment reflected the multi-scalar state space that incorporated interests and logics of transnational capital as well as that of local people. The differences between unionised workers' wages and migrant workers' wages are predicated on spatial relations of production than on differences in skill. Capital, faced with the unique history of labour in Kerala, recruits labour from North and Northeastern India and installs a regime of wages that is layered and multiple.

Sunday market in Perumbavoor, however, is a place that is soaked in an emergent. The market provides insights on place making as a practice and on the agency of workers. The bustling subaltern commerce, gatherings of friends and co-villagers, formation of networks of information, and creation of services that are migrant-

specific; all of these together fashioned a space that serviced a migrant identity.

PhD Thesis of Kiran Kumar Kakarlapudi (2010)

 The Role of Innovations in Inclusive Development: The Case of Banking Industry in India.

Supervisors: K. J. Joseph & Vinoj Abraham

There is a growing concern regarding the widening inequalities in income and wealth both in developed and developing countries. India's experience has been no exception. It is generally held that the higher growth in India's GDP under globalisation has not been inclusive on account of the growing inequalities at different levels. In a context of high growth driven by innovations on the one hand and growing inequalities and evidence of exclusion on the other, this thesis makes an attempt to understand the role of innovations in inclusive development by taking the case of banking sector. The choice of banking sector for detailed analysis could be justified *inter alia* on account of its often-perceived role in economic growth and poverty reduction.

The study addresses the following four objectives.

To analyse the evolution of commercial banking in India from the perspective of inclusion. To examine the institutional innovations in the banking sector with a view to understand its effect on financial inclusion. To analyse the effect of technological innovations on inclusion of banking services at a sectoral level. To investigate the role of technological innovations on inclusion within banking sector by examining changes in employment.

The performance of banking under the two major institutional innovations; bank nationalisation and financial sector reforms showed significantly different patterns of banking development. The first institutional intervention with its objective of social banking contributed to the growth of banking in rural areas, backward states and productive sectors. The second institutional innovation, reforms, with its objective of efficient banking, contributed to the faster



growth of banking in urban, developed regions and allocation of services to high-return sectors. Given this background, the study analyses the bearing of the two institutional innovations on financial inclusion in India during 1972-2014. Going beyond one-dimensional measure, this study constructs a measure of financial inclusion index using six dimensions of inclusion. Further, a separate financial inclusion index for rural and urban areas is constructed to explore the differences. The regression analysis shows positive effects of both the institutional innovations on financial inclusion. The disaggregated analysis reveals a faster increase in financial inclusion of backward states during social bank regime (first institutional innovation) while developed states showed a faster increase during the reform period (second institutional innovation). The results show unequal effects of reforms on financial inclusion as manifested an increase in inter-states inequalities, ruralurban inequalities and concentration of banking services.

Secondly, the study analyses the effects of technological innovations on the access to agricultural credit by analysing the effect of Kisan Credit Card (KCC), introduced in 1998. The econometric analysis at the aggregate level presents evidence to indicate a positive and significant impact of the introduction KCC on access and use of agricultural credit. Further, the analysis at household level reveals that KCC is the major source of credit among all other sources. The average rate of interest is lowest for KCCs as compared to others schemes. However, analysis using household-level data tends to suggest that access to KCC has not been uniform across socioeconomic groups. The analysis showed a considerable variation in access to KCC across land holding size, social groups and education categories. Our study, thus, argues the success of KCC is concentrated in a few sections of the households, raising concerns on the inclusiveness of technological innovations.

Having analysed the effects of innovations on inclusion of banking services, in the last part, the thesis examines inclusion within the banking sector, by analysing changes in employment. The analysis reveals an increase in the share of employment in favour of skills across all the ownership groups and the increase is highest in case of foreign banks followed by the private banks. There is evidence of an increase in the share of females in total employment among skilled employee category, indicating complementarity between technologies and female employment. We employed fixed effects regression model to analyse the effects of innovations, measured in terms of ATMs per branch, on total employment and on skills. The results show negative and significant effect of innovation on total employment in public sector banks while its effect is insignificant in the private sector and for the whole sector. However, further analysis shows a positive effect of innovations on skilled employees. From the findings, the study draws attention to emerging inequalities in the labour market and broad implications on inclusive growth.

This thesis, through the stated objectives, highlights the role innovations, both institutional and technological, in contributing towards inclusive development. The aggregate analysis shows a positive effect on inclusive development. However, the disaggregated analysis shows multiple forms of exclusion which calls for policy attention.

PhD Thesis of Sanjaya Kumar Malik (2010)

Technological Change in Capital Goods Sector: The Case of India's Textile Machinery Industry.

Supervisors: Sunil Mani & M. Parameswaran

The thesis examines the technological change in an important segment of India's capital goods sector, namely the textile machinery industry. Specifically, it has delineated the process of technological change in the textile machinery industry in a disaggregated fashion by analysing the sectoral systems of innovation (SSI) of spinning and weaving machinery manufacturing in India.

The SSI framework of Malerba (2004) has been employed to understand the processes of innovations in the textile machinery industry in India. This framework maps out the essential building blocks, viz, technological regime, demand conditions, and actors, in the spinning and weaving machinery manufacturing to understand the clear distinctions between



the two and thus analyses the overall processes of innovations in the textile machinery industry in India.

A some (or small) innovations in India's textile machinery industry have been witnessed from the analysis of the trend in Indian patents granted to the textile machinery manufacturers. Most of these innovations are accounted for by the spinning machinery manufacturing whereas the weaving machinery manufacturing has contributed abysmally low to the overall innovations of the textile machinery Industry.

The presence of a strong actor (i.e. Lakshmi Machine Works) almost explains the innovations in the spinning machinery manufacturing in India. Further, the access to external knowledge and better demand conditions have respectively provided the expected chances for product development and market success in the indigenous production of spinning machinery and thereby brought about the domestic technological efforts and technological success in the spinning machinery manufacturing.

On the other hand, the absence of a lead actor in the production of domestic weaving machinery is accountable for the poor innovations in the weaving machinery manufacturing. Moreover, the lack of access to the external knowledge and the weak demand conditions in the local manufacture of weaving machinery have respectively weakened the expected chance for product development and market competitiveness in the local weaving machinery manufacturing and thus discouraged the technological efforts and technological success by the weaving machinery manufacturers in India.

PhD Thesis of Vachaspati Shukla (2010)

 Examining Educational Progress in India: Characteristics and Consequences

Supervisor: U. S. Mishra

This study deals with two important issues: examining educational progress and assessing its association with income distribution. A detailed review of the available evidence revealed that the understanding about educational progress in India is limited and inadequate. Therefore, the

study argues for a comprehensive analysis of educational progress that informs about the three important aspects of educational progress +overall educational capacity of the population, its dynamics and its distribution. It was observed that studying the changes over the age cohorts is the best way to comment on the dynamics of educational progress. Analysis of educational progress over the age cohorts revealed that progress in achieving literacy levels in India is below expectations owing to the existing stock of illiterates among the older age cohorts. Moreover, the intensity of group disparity in literacy is found to be very small for the younger age cohorts and in the case of some states, it virtually disappears. Analysis of mean years of schooling over the age cohorts indicates an improvement in the average years of schooling with shrinking schooling inequality measured in terms of the Gini coefficient.

The negative relationship between expansion of schooling and schooling inequality does not hold if inequality is measured in terms of standard deviation. It is found to have an inverted-U shape, which indicates that with increase in the average level of schooling, educational inequality first increases, and after reaching a peak, it starts declining in the later phases of educational expansion. It is argued that increasing human capital is one of the means to lower income inequality and increased support for public education might serve towards accomplishing this goal. It is further reiterated in the existing literature that the association between educational expansion and income inequality is dynamic. It changes with changes in the macroeconomic condition of the economy. Empirical verification of this in the Indian context reveals no significant association between the levels of schooling and income inequality in the rural sector. On the contrary, inequality in the distribution of income is found to be positively associated with the proportion of graduates in the urban sector. Analysis also reveals that the educational level of the household's head played an important and significant role in explaining the differences in household income in India. The state-wise analysis depicts interesting variations as regards the role of education in shaping inequality.



Current Studies

 Governing Cities: Changing Role of the State and Rights of the Urban Poor: A Comparative Study on Urban Governance in Andhra Pradesh and Kerala Aarathi G., 2014– UGC-JRF Supervisors: K. N. Harilal & Vinoj Abraham

 Growth of Multinational Corporations in India: An Analysis of Government Policies and Performance Anurag Anand, 2014

— ICSSR Supervisor: Sunil Mani

 Caste and Economic Mobility in India: With Special Reference to Kerala and Tamil Nadu Libitha C. 2014

— ICSSR Supervisor: Vinoj Abraham

 Tobacco Consumption & Control- Analysing Impact of Policy Interventions in India
 Sanchita Mukherjee, 2014– ICSSR Supervisor: U. S. Mishra

5. Agrarian Question and the Transition of Rural Labour in India

Yadu C.R., 2014- ICSSR Supervisor: Vinoj Abraham

6. Challenges and Prospects of Tourism as a Development Option: The Experience of Kerala

Nalini Netto, (2001) – Re-admitted on January 2015 (Government of Kerala)

Supervisors: Amit Shovon Ray & K. N. Harilal

7. State and Emigration: A Study of Indian Policy **Akhil C. S.,** (2015) – UGC-JRF Supervisor: S. Irudaya Rajan and K. N. Harilal

8. Inequality, Pro-Poor Growth and Development: The Indian Experience

Amartya Paul, (2015) – ICSSR Supervisors: N. Vijayamohanan Pillai & Srikanta Kundu

9. Farm Households in India Acquisition and Use of Information

Aritri Chakravarty, (2015) – ICSSR Supervisors: Srikanta Kundu & Manmohan Lal Agarwal Innovation in the Informal Sector: Evidence from Urban Manufacturing Enterprises in India'
 K. Chandra Shekar, (2015) – ICSSR
 Supervisor: K. J. Joseph

11. Innovation in India's Capital Goods Sector: An Innovation System Perspective

George Paily, (2015) – UGC-JRF Supervisors: K. J. Joseph & Beena P.L

Educational Outcome of the Tribal Children in Odisha
 Susama Hansdah, (2015) – ICSSR
 Supervisors: Chinnappan Gasper & U. S. Mishra

13. Higher Education in Kerala: A Study of Access and Equity

Akhila P., 2016- ICSSR Supervisors: K. J. Joseph & K. N. Harilal

14. Activity-Participation of Elderly in Kerala: Determinants and Contributions

Arya U.R., 2016- UGC Supervisor: S. Irudaya Rajan

 Cash versus In-kind Transfers: The Indian Experience Indrajeet Kumar, 2016- UGC
 Supervisors: U. S. Mishra & Hrushikesh Mallick

16. 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

17. Interstate Labour Migration in India: A Comparative study of Gujarat and Kerala as Destination States

Madhusudan Nag, 2016- ICSSR Fellowship Supervisor: S. Irudaya Rajan

 Grounded Globalisations and Shaping of the Local: A Political Ecology of Kerala's Midlands and Highlands Mijo P. Luke, 2016- ICSSR

Supervisor: J. Devika



19. Multiple Identities and Urban Spaces: A Study of Residential Segregation in Kerala

Neeha Susan Jacob, 2016- UGC Fellowship Supervisor: U.S. Mishra

20. 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

21. Industrial Agglomeration: A Study of the Indian Manufacturing Sector

Smruti Ranjan Sahoo, 2016- ICSSR Fellowship Supervisors: M. Parameswaran & P. L. Beena

- 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
- 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
- 24. The Process of Urbanisation and the Role of Industrial Location in India

Vineesh T.B., 2016- GoK Fellowship Supervisor: Vinoj Abraham

25. Spatiality of Dalit Settlements in Kerala: Selected Case Studies

Vipitha V., 2016- ICSSR Fellowship Supervisor: J. Devika

- 26. State, Adivasis and Political Economy of Industrialization: A Case Study of Sundargarh District John Kujur, 2017- NFH Fellowship Supervisors: Jayseelan Raj & Ritika Jain
- 27. Minimum Wage in India: Trends Impact and Issues Kashif Mansoor, 2017- ICSSR Fellowship Supervisors: Vinoj Abraham & P. L. Beena

Energy Poverty in India
 Krishan, 2017- UGC Fellowship
 Supervisors: U. S. Mishra & Hrushikesh Mallick

29. Social Exclusion: The Context of Health of the Aged in Tamil Nadu

Maheshkumar T., 2017- ICSSR Fellowship Supervisors: Irudaya Rajan & Abhilash

Enterprises and Social Groups in India
 Rajesh I. D. 2017- GoK Fellowship
 Supervisor: P. L. Beena

31. Disability and Human Development

Sachu R. Sunny, 2017- UGC Fellowship

Supervisor: U. S. Mishra

Re-Registered for Submission

 Revisiting Formal-Informal-Agriculture Inter-linkages in India: A Computable General Equilibrium Analysis Anirban Kundu, 2009

Supervisor: M. Parameswaran

2. Higher Education and Inclusive Development: The Indian Experience

Jannet Farida Jacob, 2011 Supervisors: K. J. Joseph & U. S. Mishra

3. Corporate Social Responsibility: Its Determinants and Effects, A Study of the Indian Corporate Sector **Kavitha P.**, 2013

Supervisors: Sunil Mani & M. Parameswaran

PhD Internship Abroad Programme (PIA)

To bring about more international exposure to research students, the PhD Internship Abroad (PIA) programme was launched last year. This enables PhD scholars to spend time in research work at an institute of repute in any part of the world.



This year 6 students were selected for the programme

Innovation in India's Capital Goods Sector: An Innovation System Perspective

George Paily, (2015) – UGC-JRF Supervisors: K. J. Joseph & Beena P.L

Name of institute visited: UNU-MERIT, Maastricht,

Netherlands (20.10.2017 to 20.01.2018)

State and Emigration: A Study of Indian Policy

Akhil C. S., (2015) - UGC-JRF

Supervisors: S. Irudaya Rajan and K. N. Harilal

Name of institute visited: Institute of Political Science at Leiden University, Netherlands (01.01.2018 to 31.03.2018)

Inequality, Pro-Poor Growth and Development: The Indian Experience

Amartya Paul, (2015) - ICSSR

Supervisors: N. Vijayamohanan Pillai & Srikanta Kundu Name of institute visited: University of Gottingen, Germany (01.01.2018 to 31.03.2018)

Farm Households in India Acquisition and Use of Information

Aritri Chakravarty, (2015) - ICSSR

Supervisors: Srikanta Kundu & Manmohan Lal Agarwal Name of institute visited: University of Leuven, Kulak, Belgium (01.01.2018 to 31.03.2018)

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

K. Chandra Shekar, (2015) - ICSSR

Supervisor: K. J. Joseph

Name of institute visited: UNU-MERIT, Maastricht, Netherlands (01.01.2018 to 31.03.2018)

Educational Outcome of the Tribal Children in Odisha

Susama Hansdah, (2015) - ICSSR

Supervisors: Chinnappan Gasper & U. S. Mishra

Name of institute visited: School of Education, Durham University, Durham, United Kingdom (27.01.2018 to

31.03.2018)

(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. 448 students from the 40 batches till 2014–17 have been awarded the MPhil Degree. The dissertation details of the 41st batch (2015 admission), are listed at the end of this section.

Eleven students of the 2016 batch will submit their dissertations by June 30, 2018.

The 43rd batch of the Programme (2017–19) commenced on August 01, 2017.

2017 MPhil Admission

- 224 candidates attended written examination out of 291 applications
- 33candidates were short–listed for interview from the 224 applications; 29 appeared for interview.
- 11 were offered admission (Six General, Three OBC NCL, One SC & One ST).
- 11 joined the Programme. 3 from Kerala, 2 from West Bengal, 2 from Odisha and one each from, Assam, Haryana, Maharashtra & Telangana.



DISSERTATIONS of MPhil Programme 2015-17

Geo-economics of China's Belt and Road Initiative

HIMANSHU ARORA

Supervisor: K. N. Harilal

Development, Dispossession and Democracy: A Case Study on the Dispossessed Population of Rourkela

JOHN KUJUR

Supervisor: J. Devika

On Understanding Labor Participation and Occupational Attachment if Muslims in India

KASHIF MANSOOR

Supervisors: Vinoj Abraham & Upasak Das

Innovation and Export Performance: An Analysis of India's Manufacturing Sector

KRISHAN

Supervisor: K. J. Joseph

Understanding Health Care Utilisation among the Elderly in Tamil Nadu

MAHESHKUMAR T.

Supervisors: S. Irudaya Rajan & U. S. Mishra

An Analysis of Participation of Females in Unpaid Domestic Activities in India

RAJESH I. D.

Supervisor: Vinoj Abraham

Bio-Social Formations in Kerala: A Case Study of Sickle Cell Anemia Patients of Wayanad and Autistic Individuals of Ernakulam.

SACHU R. SUNNY

Supervisor: J. Devika

(c) M.A. 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).

2017 MA Admission

For Students from India

- 852 Applications were received. All the 852 applicants were found eligible for appearing the Entrance Examination.
- Out of the 852 candidates, 20 opted Hy derabad, 158 opted Kolkata, 115 opted Kozhikode,
- 360 opted New Delhi, 40 opted Pune and 159 opted Thiruvananthapuram as their centre for Entrance Test.
- Entrance test was conducted from 10.00 am to 12.00 noon on Sunday, May 21, 2017. 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
- 668 Candidates out of 852 applicants appeared for the entrance test.
- Selection was based only on the score of the entrance test.
- 21 joined the programme.

For Students from SAARC Countries

Five applications were received for MA Applied Economics Programme. Three from Bhutan and two from Nepal. The Committee interviewed five candidates for MA admission from SAARC countries. Four of the candidates were interviewed over Skype, and one was over 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 the following four candidates for admission and scholarship.



SI.No.	Name	Country
1	Mr. Mahindra Timsina	Bhutan
2	Mr. Shivakumar Sunuwar	Bhutan
3	Mr. Subhankar Agrawal	Nepal
4	Mr. Tashi Phuntsho	Bhutan

CDS Published an Admission list of 4 Students. Two Students from the Admission list did not join the programme (Mr. Shubhankar Agrawal & Mr. Tashi Phuntsho).

2016 Batch

All the 21 students from 2016 MA batch successfully completed their III Semester. Now they are pursuing the IV

Semester. Their Project Presentations will be scheduled on April 2-6, 2018.

Guest Faculty

1. Prof. V. Santhakumar

AE 209: Environment and Sustainable Development-Semester III

AE 215: Political Economy, Development and Governance

2. Mr. Siddik R

Course AE 212: Law, Economics and Development-Semester IV.

The Project topics of 21 students are given below: MA PROGRAMME- 2016 Batch

AE 208- Project

SI. No	Name	Tentative Project Topic	Name of Mentors	
1	Akash Kumar Mienj	Ageing and its Macroeconomic Implications on the Economic Growth: An Empirical Analysis of India	Prof. U. S. Mishra	
2	Ammu Lavanya	Growth in the Indian manufacturing sector: A Relook.	Prof. Manmohan Lal Agarwal	
3	Ancy Thomas	Migration, Remittances and its impact on Educational Outcomes	Dr. Ritika Jain	
4	Anurag	How Macroeconomic and Bank Specific Factors affect Non-Performing Assets in Indian Banks?	Dr. N. Vijayamohanan Pillai	
5	Archana Rajendran	Fertility Analysis at District Level across India	Prof. Irudaya Rajan	
6	Arpita Agarwal	Impact of Political Uncertainty on Stock Market	Dr. Srikanta Kundu	
7	Emil Mathew Binny	Structure and Growth Performance of Indian Tyre Industry Post Liberalisation	Prof. K.J. Joseph	
8	Himani Aggarwal	Impact of Indian Cricket team's Performance on the Indian Stock Market	Dr. Srikanta Kundu	
9	Jaisurya Meena	A Study on the Determinants of Combined Government Expenditure of Centre, States and UTs: An Analysis for India	Dr. Hrushikesh Mallick	
10	Kavita Meena	Kerala: Election Outcomes and Economic Performance	Dr. Ritika Jain	



11	Nirbhay Kumar Nandan	Impact of Climate Change on Economic Growth	Dr. N. Vijayamohanan Pillai
12	Niveditha P.S.	Utilization of Day-Care Centres and Time Allocation	Dr. Vinoj Abraham
		by Mothers – A Case Study of Nellanad Gramapanchayath,	
		in Trivandrum	
13	Rahul Kamal	Determinants of Public Expenditure on Education:	Dr. Hrushikesh Mallick
		A Comparative Analysis for the Indian States	
14	Rishika Raj	Impact of MGNREGS Wage rates on Rural Wages in India	Dr. Vinoj Abraham
15	Sabeer V. C.	Trade competition and Investment: Firm-level	Dr. Parameswaran M
		Evidence from India	
16	Shihas Abdul Razak	Impact of Trade Competition on Employment and Wages	Dr. Parameswaran M.
17	Shubha Battacharya	Technology Transfer in Oligopolistic Markets	Dr. Rajit Biswas
18	Sukanya S.S.	Handloom Industry in India - A Case study of Organisation	Prof. K.J. Joseph
		of Production with focus on Non-household units in	
		South Trivandrum	
19	Tanvi Shah	Multilateral Trading System: Its Objectives and Progress	Prof. Manmohan Lal Aggarwal
20	Vandana TR	Comparative Effects of unit taxes and Ad Valorem	
		Taxes on Employment in a Monopolistic Framework	Dr. Rajit Biswas
21	Varsha Vaishnav	Concentration- Mark up Relationship in the	Dr. P. L. Beena
		Manufacturing Sector	

Scholarship for students from SAARC Countries

With the funding from Kerala government, CDS provides five scholarships to students from SAARC countries who enrol in the MA programme. To begin with, for the year (2017-18) five scholarships are available and will be given to one student from each of the five SAARC countries Bangladesh, Bhutan, Maldives, Nepal and Sri Lanka. If there is no candidate from a country, a candidate from another country will be selected on the basis merit. The MA programme with a clear focus on issues of applied economic development will train them to think about development research scholarship from a non-western perspective but with adequate rigour of analytical economics.

Lectures on Behavioural Economics

A course on Behavioural Economics for all students of the CDS was organised on August 3rd, 8th, 17th, 22nd and 29.th

Professor Haimanti Bhattacharya, Associate Professor, University of Utah, USA was the main resource person. The course covered the following topics:

- 1. Overview of Experimental Economics
- Evidence on other-regarding preferences
 Ultimatum game
 Dictator Game
 Trust Game
 Gift exchange game
 Public goods game
- Models of other-regarding preferences
 Outcome-based
 Intension based
 Hybrid
- 4. Morality: Deception/lying/cheating



Certificate Courses at the Centre

(Open only to registered students of CDS)

SI No.	Name of the Course	Course Instructor	Number of Sessions	Course Offered	Total Number of Student (Registered)
1	Financial Econometrics	Dr. Srikanta Kundu	10	MA 2 nd Year	10
2	Social Exclusion and Inclusive Policy	Dr. Abhilash T.	10	All Registered MA/MPhil/PhD	11
3	Advanced Economic Theory	Dr. Rajit Biswas	10	MA 1 st Year	8
5	Methods for Impact Evaluation	Dr. Upasak Das	10	MA 2 nd Year	18
6	Ethnography: Theory and Practice	Dr. Jayseelan Raj	10	PhD	8

Statement for the MA, MPhil and PhD Programmes during the period 2017-18

Year	Course	Number of	Number of Students appeared	Number of	Number of
		students Applied	Entrance Examination	Students	Students
				Admitted	Awarded
	MA	852	668	21	20
2017-18	M Phil	291	224	11	12
	PhD	-	-	7	5
	Total	1143	892	39	37

(d) SHORT-TERM TRAINING PROGRAMMES

EDS387: State and Civil Society in Development and Environmental Governance in India (Norwegian Training Programme)

26 August- 10 September Co-ordinator: Vinoj Abraham

A short-term course on 'State and Civil Society in Development and Environmental Governance in India,' for students of the Department of International Environment and Development Studies (Noragric) of the Norwegian University of Life Sciences (NO-NMBU) was organised between August 26, 2017 and September 10, 2017. Seventeen students participated in the programme. 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 wideranging 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.



12th Migration Training Programme on 'Methods and Approaches in Research on Migration Issues'

November 20th to 24,th 2017

Co-ordinators: S. Irudaya Rajan and U.S Mishra

The Centre has been conducting the training programmes on methods and approaches in research on migration issues, and this year its twelfth programme was on November 20-24, 2017. The programme was sponsored by Rajiv Gandhi National Institute of Youth Development (RGNIYD), Chennai and Loyola Institute of Social Science Training and Research (LISSTAR), Chennai. Professor S. Irudaya Rajan and Professor U.S. Mishra have co-ordinated the programme. It has selected 35 professionals and young researchers from different esteemed institutions such as IIM Indore, ISEC Bangalore, Central University of Gujarat, Aligarh Muslim University, University of Hyderabad, University of Madras, Karnataka University, Pondicherry University, Ganpat University Mehsana etc. The Director of RGNIYD, Chennai, Dr. Madan Mohan Goel inaugurated the programme followed by a special address by the Executive Director of LISSTR, Chennai, Dr. A.M. Jayapathy Francis. The resource persons included, S. Krishna Kumar Formerly Secretary, MOIA, Government of India, T.L. S.Bhaskar ICM, New Delhi, R B Bhagat IIPS, Mumbai, Ravi Raman, Member, Kerala State Planning Board, Edward Anderson, University of Cambridge, Bernard D'Sami LISSTR, Chennai. B.A. Prakash, Former Head of the Dept of Economics, University of Kerala, Surabhi Singh IOM, New Delhi, Anish Sugathan, IIM, Ahmedabad, Ardra Manasi DESA, United Nations, P Sivakumar RGNIYD, Aditi Bhaduri Journalist and Political Analyst and Benoy Peter CMID, Ernakulam, apart from faculty members of the centre.

Pathways of Social Research: Methodology Training (ICSSR Sponsored Capacity Building for Researchers in Social Sciences)

8-12 January, 2018 & 5-9 March, 2018 Co-ordinators: Abhilash T and Jayaseelan Raj

The Centre organised a capacity building programme for

doctoral candidates belonging to Scheduled Caste and Scheduled Tribe, minorities and other marginalized Groups. It was organised in two batches between 8th and 12th January (First Batch) and between 5th and 9th March (Second Batch). This programme, funded by ICSSR, intends to enhance the research capability of young scholars. Around 400 applications were received from different universities across India, out of which 40 students were selected. The major focus was on training students with developing research questions/objectives, collection/presentation of data, research ethics, literature review and dissemination of research findings. The five-day programme had lectures by CDS faculty, eminent academics from universities in India and abroad, software training, group discussions, and presentation/discussion of research proposals by students.

Design and Evaluation of Innovation Policy (DEIP)

February 12-16, 2018

Co-ordinator: Sunil Mani and Anthony Arundel

This was the first time that a version of the 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. It was organised through ten lectures spread over five days. Class Room lectures were supplemented with three field visits to better illustrate the topics that were done. The topics covered included the following:

- 1. Systemic perspective on innovation
- Measuring innovation using conventional and new indicators
- 3. Public Research Institute-Industry linkages
- 4. Technology spillovers from MNCS
- 5. Industrial clustering as a way of promoting innovations
- 6. Policy instruments for promoting innovation- Case of R&D tax incentives



Field visits were organised to illustrate the following three topics:

- Public Research Institute-Industry linkage Case of the Biomedical Technology Group of Sree Chitra Tirunal Institute for Medical Sciences and Technology
- Clustering as a policy instrument for promoting innovations by firms Case of EY
- R&D tax incentives Case of HLL Lifecare Ltd

Forty participants representing all actors within India's National System of Innovation were represented in the course. Participants came from such organisations as the Kerala State Council for Science and Technology and Environment, Sree Chitra Tirunal Institute for Medical Sciences and Technology, HLL Life Care, Airports Authority of India, District Industries Centre, Government of Kerala, International Centre for Free and Open Source Software, University of Calicut, Indian Institute of Science, Centre for Technology, Innovation and Economic Research etc. Besides the above, there were also participants from Research and Information System, TAPMI, IIT Indore, Central University of Gujarat besides 14 students representing all the three courses in CDS.

K.N. RAJ FELLOWSHIPS

In order to perpetuate the memory of Professor K.N. Raj, the Centre has instituted a Fellowship Programme for College and University teachers to essentially, improve the quality of teaching of Economics. The fellowships are based on an endowment instituted by the Government of Kerala. Ten such fellowships are being offered annually, beginning with 2012, to: (i) prepare teaching resources; and (ii) enable teachers to complete a piece of research.

Teaching Resources Grant for Teachers in Economics

Under this scheme, teachers in economics from any of the universities or recognised secondary schools in India may spend up to a period of one month at the Centre. At the end of the award period, the awardee is expected to produce teaching resources such as lecture notes. They are:

K N Raj Teacher Fellows 2017-18

Dr. Sinitha Xavier, Assistant Professor, Government College, Chalakkudy on the topic Increase in Agricultural Productivity through integrated farming in Kerala Economy, from 31st August, 2017 to 30th September, 2017.

Dr. K S Hari, Assistant Professor, Gokhale Institute of Politics and Economics, Pune, Maharashtra on *Teaching notes for Public Economics and Political Economy of India's Development*, from 6th to 17th November 2017 and December 25th to 5th January, 2018.

Ms. Namrata Gulati, Assistant Professor, South Asian University, New Delhi on Learning, developing and implementing innovative techniques in Econometrics especially in the area of Limited dependent variable models, from 19th December, 2017 to 18th January, 2018.

Mr. R L Rejith, Assistant Professor, Dept. of Economics, Govt. Arts College, Thiruvananthapuram on the *Indian Economy*, (Yet to join).

Dr. Syamprasad, Assistant Professor, Central University of Kerala, Kasargod on *Growth and Development*, (Yet to join)

Research Grant for Researchers in Economics

Under this scheme, researchers in Economics from any of the affiliated colleges or university departments, Journalists and Development Practitioners from India may spend up to a period of three months at the Centre to write a chapter of their doctoral dissertation, prepare a research paper, or complete a book. They are:

K N Raj Research Fellows

Dr. Haseena V A, Assistant Professor, Post Graduate Department of Economics, MES Kalladi College, Mannarkkad, Palakkad on *The Intensity of Socio-economic Deprivation on the Tribal Women in Kerala with reference to Attappady Tribal Block*, from 5th July, 2017 to 4th October, 2017.



Dr. Jisha K K, Assistant Professor, Department of Economics, Govt. Victoria College, Palakkad on *Credit and Agriculture Development in India: An analysis of its Objectives, Structure and Growth*, from 11th August, 2017 to 10th November, 2017.

Dr. Jerry Alwin, Assistant Professor, Dept. of Economics, S N College, Varkala, on *Eleventh and Twelfth Year Plans of Kerala: An analysis of Plan Performance,* from 9th May, 2017 to 8th August, 2017.

Dr. Rajesh K, St. Aloysius College, Elthuruth, Thrissur, on Impact of MGNREGS on *Rural Livelihood and Agricultural Sector of Adat Grama Panchayat*, (Yet to join).

Dr. Shyjan D, Assistant Professor, Department of Economics, Dr. John Matthai Centre, Thrissur, on *Economic Growth and the Services Sector in Kerala: Analysis of Output, Employment and Inequality,* (Yet to join).

Sr. Sheeba Andrews, Assistant Professor, Department of Economics, Providence Women's College, Calicut, on *Dynamics of Crop Shift and Land Use Change at Farm House Hold Level in Kerala,* from 28th September, 2017 to 27th December, 2017.

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 1st January, 2018 to 30th June, 2018.

Mr. Tyler Andrew Blackman, Research Scholar, University of Victoria, Canada has been grated 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 Mellon 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 24th August, 2017 to 23rd August, 2018.

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 'Robot Apocalypse, Does it matter for India's Manufacturing Industry,' Some of the ongoing studies include, 'The Diffusion of a Cashless Economy in India, Its Trends and Challenges,' and a study on 'Emerging Technology, State and National Innovation Capability: An International Comparative analysis based on Artificial Intelligence (AI) and Robotics and Autonomous Systems.' During the year, the unit had 4 publications in the form of 1 journal article, 2 chapters in books and 1 Working Paper. In addition to this, 7 seminars were presented at the CDS, and 14 seminar papers including lectures were presented outside the CDS. 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 book *Did The Millennium Development Goals Work? Meeting Future Challenges with Past Lessons* was edited together with Hany Besada and Leah McMillan Polonenko, published by



Policy Press, University of Bristol 2017. The book also contains a chapter titled 'North Africa and Middle East; Economic Performance and Social Progress,' jointly with Badye Essid.

Completed research includes studies on Monetary Policy: Its Changing Objectives, Instruments and Results; Skill Development in Africa: Scope for India Japan Cooperation-Asia Africa Growth Corridor; Research and Information Systems, Foreign Direct Investment and Poverty Reduction: India in Regional Context; and a monograph on Assessing Development: Where are the Indian States?. A two-day conference on 'Economic Theory and Policy' was also conducted at CDS on February 22&23, 2018. 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 of the international economics and macroeconomics courses for the MA students. The second of two M.Phil students who were working on their M.Phil dissertation was also granted his degree. One of the Ph.D students spent three months at Katholiek University at Kortrijk and has made substantial progress. The second Ph.D. student has de-registered as she has got a teaching job but is, however, continuing with her research.

Looking ahead, the unit will be focusing on the international monetary system. Prof Agarwal will also be working with his colleague, John Whalley to bring out an edited volume on Developing Countries and the G20.

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 RULSG undertook very different activities in 2017-18. Professor J. Devika took over as Chair Professor in March 2017. The unit was to examine the prospects for strengthening policy work in and plan for better utilization of funds. The unit has been able to make some progress on those lines, and fund utilization has improved. However, the work of the unit was dogged by the principal researcher's illness that lasted four months; therefore much work planned for 2017-18 had spilled over into 2018-19. Nevertheless, all these should be completed by mid-June 2018, even as this year's work gets off the ground.

The proposed work for 2017-18 included:

- A workshop on developing journalist-researcher collaborations in development reporting and research.
- 2. Roundtables on policy issues to generate lobby-notes for specific groups of marginalized people.
- 3. New research themes
- 4. Associating a policy analyst
- 5. Associating a translator
- 6. Carrying forward activities initiated earlier.

During the year the Unit organised a CDS-ACJ Workshop on Development Research and Reporting on the Local, in collaboration with Asian College of Journalism. A roundtable that discussed the question of expanding the framework of local governance in Kerala to include the needs and rights of the LGBTIQ people was also organised. A one-day training in Panchayati Raj for the LGBTIQ community in Kerala and a discussion on Human Diversity Friendly Panchayats on integrating LGBTIQ rights in Kerala's LSGs was conducted.

A lobby note was finalized including inputs from participants, and both English the Malayalam version was printed as booklets and uploaded on the CDS website. Subsequently, a Handbook on LGBTIQ issues by a group of academics and activists associated with the LGBTQI groups was also finalized this year.



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.

During the last Steering committee meeting, it was decided that the all the studies shall be undertaken in-house and following studies as proposed by the Steering Committee are being undertaken in close collaboration with the commodity board concerned.

- a. The harvest is plentiful but the harvesters are a few? An exploration of the below potential of natural rubber.
- b. Harvest issues in spices: Study of coriander and cumin,
- Diffusion/adoption of innovations in coffee: A study of Chandragiri variety
- d. Constraints to diffusion/adoption of innovations in natural rubber: Study of tapping practices and rain guarding

All the above studies are based on the primary data and the field survey in close collaboration with the commodity boards are being undertaken addition two studies; a) Analysis of price formation under cardamom e-auctions and b) Characterizing the household consumption demand for coffee: An Exploration, based mostly on secondary data is also being undertaken

Research Unit on Kerala and the World Economy

A Research Unit on 'Kerala and the World Economy' was set up at the CDS last year. 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.

During the reporting year the following Research proposals on 'Kerala's Labour Market in the World Economy' by Vinoj Abraham; 'Trade in Commodity and Services from Kerala' by PL Beena; 'Role of Remittance in Determining Economic Growth and its Structure' by M Parameswaran; 'Gender and Labour Migration' by Praveena Kodoth and a 'Study of the Aviation Industry in Kerala' by Sunil Mani with a sum of Rs 4 Lakhs was allotted to each of the projects.

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 Seventh P. K. Gopalakrishnan Memorial Lecture was held at the Centre, Prof.Sukhadeo Thorat, Professor Emeritus, JNU delivered a lecture on "Inter-Group Inequality in India: Insight from the Economic Theories of Discrimination,' on February 28, 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. During the reporting year, no Endowment lecture was organised.



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 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.* This year the Joan Robinson prize for meritorious performance was awarded to Ammu Lavanya and Shubhaa Bhattacharyya

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. This year the M.G. Kanbur Prize for meritorious performance was awarded to Himani Aggarwal and Shubhaa Bhattacharyya.

SUPPORT SERVICES

(a) K.N. RAJ LIBRARY

During the year 2017-18, there was considerable strengthening of digital resources of K.N.Raj Library including starting an eBook collection. The Library also launched a 'content alert broadcast' using the Telegram 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, 661 books, and 36 CD-ROM / DVD were added to the collection. This year CDS started the procurement of eBooks, 52 eBooks were purchased this year from Oxford University Press and Cambridge University Press. The library catalogue [OPAC] is available online at http://cdslib.cds.ac.in:8380/opac4x/. CDS Information Repository (Digital Library) including the CD-ROM / DVD mirroring is installed to capture/preserve digital content and make them accessible to scholars and faculty. The library automation software Libsys4x is used by users and staff for the day to day operations and catalogue search.

The K.N.Raj Library subscribes to 153 Print Journals and 12 Newspapers. The library also received 59 print periodicals/journals as a gift. The Centre has started to subscribe to Oxford Online – Social Science collection (79 journals), Wiley Online (24 journals), and ProjectMUSE – Social Science collection (113 journals) during this year. The subscription to Science Direct - Economics, Econometrics, and Finance (106 journals) was renewed for the year 2018. Access to the EconLit (599 journals) and JSTOR (2657 journals) was provided by the ICSSR/NASSDOC consortia. These six journal databases jointly are providing access to 3578 e-journals. They are available to the CDS community through IP access. More than 695 volumes (books and journals) were bound and preserved during the reporting year.



During the reporting period, the library membership has increased. A total of 753 new members joined the library out of which 72 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 1121 posts and has received 30683 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, (c) Twitterhttps:// twitter.com/knrajlibrary, (d) Google Plus https:// plus.google.com/117599930063574349978/about, and (e) Scooplt www.scoop.it/t/infoknrl. In addition to these, a Content Alert Broadcast Channel on Telegram Messenger App (https://telegram.org/) was launched during this reporting year. To subscribe to this service just send a message [NAME] Add KNRL Alerts to +91 9188451892 from your Telegram Messenger App.

A User Awareness Session on how to effectively use the Science Direct-EEF journals database was conducted on February 20, 2018 afternoon. Dr. Shubhra Dutta,

Customer Consultant, Elsevier, New Delhi was the resource person for the session.

K.N.Raj 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.

One Book display was conducted during the reporting period. The works of Professor's Richard H. Thaler and Daniel Kahneman available in the library were kept for display in the Circulation Area of K.N. Raj Library. The display was from October 11 to 17, 2017. This was useful for the CDS community and library users.

The 2017 batch MA, MPhil and PhD scholars were given an orientation about the library. This included a tour of the library, a power point presentation and a live demo of database and online resources on how to use the library web-page and catalogue. They later met the library staff to familiarize with the library's activities and services.

Mr. Satyajeet Rajan IAS, Director, Institute of Management in Government (IMG), Thiruvananthapuram along with 9 Indian Administrative Service Probationers visited the Library on 6th June at 10.30 am. The Master of Library and Information Science (MLISc) students from Kannur University visited the library on 2nd June. A group of 30 post-graduate students from St. Thomas College, Thrissur visited the library on 4th August 2017. A group of 23 students and two teachers from John Mathai Centre, University of Calicut, Thrissur visited the library on October 28th, 2018. A group of 30 students each from Providence Women's College, Kozhikode, Ambedkar Govt. College, Malappuram, Sree Narayana College, Chengannur and Nehru Arts and Science College, Kanhangad visited the library on 5th April, 16th and 20th June 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 nominated as a member of the Library Committee of Kerala Council for Historical Research. 2) V. Sriram, Chief Librarian was the external expert on the Selection Committee for the



interview of the Librarian of Madras Institute of Development Studies, Chennai.

As part of skills up-gradation CDS encourages staff to attend training programmes, seminars, workshops. V. Sriram, Chief Librarian, participated in the Library Technology Conference 2018 held at Goa University during 23 to 25 January 2018.

(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, IT section supports teaching/research activities and operations of the Library and Administration.

IT infrastructure in CDS Campus

Nine Juniper 3300 switches with 10 Gigabits uplink ports installed in four buildings of the campus.

Fiber network connection from computer centre to other buildings.

Fortinet 300 D UTM as security device.

Two HP proliant DL 180 Gen-9 servers.

One EMC VnXe 3200 SAN Storage

Virtualization of servers using VMWare.

61 HP desktops and 50 HCL desktops for staffs and student use.

100 Mbps NKN(National Knowledge Network) connectivity for internet facility in the campus.

Cisco and D-link Wi-Fi Access points across the campus to provide internet facility.

General Facilities

(a) Computer Lab

Computer lab houses 15 PCs with Windows 7/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 5 PCs and two printers. PhD Bay is equipped with two computer 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 the library users.

(d) Wi-Fi Facility

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

(e) 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 researching purposes.

Activities during 2017-18

Wi-Fi connectivity has been provided in the canteen area. Existing computer lab in the computer centre is under renovation. After renovation the digital classroom will have seating capacity of 36 students. An LED TV will be installed for presentations. Ceiling and flooring works are completed and new two cassette air conditioners are also fixed.

(c) STAFF WELFARE FUND

The Staff Welfare Fund provides limited grant to last grade employees for marriage of dependent children and financial relief for losses due to natural calamities. The Fund also provides loan to employees for purchase of land for construction of own house, house construction and renovation, education of children, medical treatment, purchase of household items and vehicles, repayment of



old debts etc. During the reporting period, eight applications for loan were approved.

Five children of employees were awarded merit certificates and cash awards for their scholastic performance in public examinations. Two of the non-academic staff members were retired during 2017-18, and a grant of Rs.15,000/- each was paid to them as a welfare measure. The Fund is managed by a Committee. The Chairperson of the

committee is Dr J. Devika with Shri Suresh Kumar S, Registrar, Shri Suresh S., 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.122.65 lakh as on 31st March, 2018.

NEW INITIATIVES DURING 2017-18

(A) ACADEMIC

New Research Series

Commentary on India's Economy and Society Series:

India's Economy and indeed its society has been undergoing a major change since the onset of economic reforms in 1991. Overall growth rate of the economy has increased, the economy is getting increasingly integrated with the rest of the world and public policies are now becoming very specific compared overarching framework policies of the pre-reform period. Over the past few years, a number of important policies have been enunciated, like for instance the policy on moving towards a cashless economy to evolving a common market in the country through the introduction of a Goods and Services Tax. Issues are becoming complex and the empirical basis difficult to decipher. For instance the use of payroll data to understand growth in employment, origin-destination passenger data from railways to understand internal migration. Goods and Services Tax Network data to understand interstate trade. Further, new technologies such as Artificial Intelligence, Robotics and Block Chain are likely to change how manufacturing and services are going to be organised. The series under the "Commentary on India's Economy and Society" is expected to demystify the debates that are currently taking place in the country so that it contributes to an informed conversation on these topics. The topics for discussion are chosen by individual members of the faculty, but they are all on issues that are current but continuing in nature. The pieces are well researched, engages itself sufficiently with the literature on the issue discussed and has been publicly presented in the form of a seminar at the Centre. In this way, the series complements our "Working Paper Series".



Visiting Research Professors/Fellows:

The Centre has initiated a new category of scholars known as "Visiting Professors/ Fellows". 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. During the reporting year appointments of Mr R Mohan, from

the Indian Revenue Service (Retd.) working in the area of Public Finance and Prof James Nedumpara, Centre for International Trade and Investment law (CTIL) at the Indian Institute of Foreign Trade, New Delhi working on Trade and Investment, Prof Krishnendu Dastidar, CESP, JNU working on Game Theory took place. Funding is from Director's Research Fund. Details for the year 2018-19 are given below:

Visiting Professors/Fellows at the Centre 2018-19

SI No	Category and Name	Home Institution	Area	Terms of Appointment			
	tegory 1A: Lecture only			<u> </u>			
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 (One year)			
2	Prof. Krishnendu Ghosh Dastidar	JNU, New Delhi	Game Theory	15.04.2018 (One year)			
3	Prof. Sujoy Chakravarty	JNU, New Delhi	Microeconomics / Behavioural economics	09.05.2018 (One year)			
4	Prof. Madhura Swaminathan	ISI, Bangalore Centre	Agriculture economics	09.05.2018 (One year)			
5	Prof. Sukhpal Singh	IIM - Ahmedabad	Agriculture Economics	09.05.2018 (One year)			
Cat	tegory 1 B: Lecture & P	aper					
6	Mr. R Mohan	Indian Revenue Service (Retd)	Public Finance	17.01.2018 (One year)			
7	Dr. Ravi Raman	Kerala State Planning Board	Political Economy	One year- April 2018			
8	Prof. Pulapre Balakrishnan	Ashoka University, Haryana IIM - Kozhikode	Applied Macroeconomics	One year – April 2018			
Cat	tegory 2: Fixed Term App	pointment					
9	Prof. Sudip Chaudhury	IIM - Kolkata	Macroeconomics/Industrial Economy of India	01.10.2018 (Two years)			
Cat	Category 3: Foreign scholar						
10	Prof. Frances Stewart	Oxford University	Development Economics	30.09.2018 to 07.10.2018			
11	Prof. Ravi Kanbur	Cornell University	Development Economics	21.10.2018 to 28.10.2018			
12	Prof. Tirthankar Roy	London School of Economics	Economics History and Political Science	09.04.2018 (One year)			
13	Prof. Thankom Arun	University of Essex	Economics	01.08.2018 (One year)			
14	Prof. T V Paul	McGill University	Political Science/ International Relations	01.01.2019 (One year)			



Certificate Courses

Three new Certificate Courses have been initiated. For more details please refer to page 100.

Academic Targets

Each member of the faculty is expected to teach one course in MA and another one at the MPhil programme. Further, they are expected to produce two working papers in a block of two years starting 2017-18.

(B) SUPPORT SYSTEMS

Library On-line Resources

The K.N.Raj Library strengthened its digital resources and services. The library has started to subscribe to three ejournal databases: (1) Oxford Online - Social Science collection (79 journals), (2) Wiley Online (24 journals), and (3) ProjectMUSE - Social Science collection (113 journals) during this year. An eBook collection was established this year utilizing ICSSR grant. This year CDS started the procurement of eBooks, 52 eBooks were purchased this year from Oxford University Press and Cambridge University Press. 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' service using the Telegram Messenger App (https://telegram.org/) during this reporting year. To subscribe to this service just send a message "[NAME] Add to KNRL Alerts" to +91 9188451892 from your Telegram Messenger App.

Modernisation of Computer Centre

As part of its modernization drive, faster Wi-Fi connectivity has been provided in the canteen area. The existing computer lab is getting a facelift. It is being converted into a digital classroom with a seating capacity of 36 students. A large LED TV will also be installed for making presentations. The classroom will have a complete new look with new flooring and two new cassette air conditioners.

New PhD Bay

A new workstation consisting of 24 cubicles has been provided for doctoral students on the first floor of the old library block. This is also equipped with locker facilities for students.

Calendar and Picture Booklet

The Centre brought out for the first time its own Calendar for the year 2018. Each month is represented by a picture of a building on the campus. In addition to academic events, important days relevant to the CDS are also given along with government and other holidays.

A picture booklet "CDS Campus in Pictures" gives a panoramic view of the campus in 24 carefully selected pictures which takes you through a nostalgic tour of the campus. This is a souvenir that can be carried home by visitors to the CDS.

Improvement in Recreation Facilities

During the last year (2017-2018), a large number of guests arrived from domestic as well as foreign destinations to participate in various official and personal programmes. A quick check on guest details shows that about 567 domestic guests and about 45 guests from foreign countries arrived from different parts of the globe during the year. This is definitely an increase from previous years.

The CDS Guest House is becoming a major host for all those from different universities and educational institutions. Among domestic guests, a Pan-Indian group of people regularly visit the CDS Guest House as part of their official programmes. Guests coming to attend various programmes like ICSSR Training Programmes, ISLE, DEIP, National Health Conference, Norwegian University Programme, UAE Exchange, RULSG, Index of Economic Development, Kerala Migration Survey etc. enjoyed their stay at the guest house immensely. Recently, Kerala State Planning Board guests are also selecting CDS Guest House as their primary accommodation option. A bulk amount of people stayed in the guest house for Library usage also. Guests for the Centre's



own programmes which include CD Meetings, Governing Body meetings are also accommodated in Guest House. Providing all kinds of amenities and facilities on a full-time basis helps in giving a friendly and homely ambience. Through the new booking management system, all kinds of reservations are updated on time as per the necessity of guests. This helps in getting more positive feedback about the services and management of the guest house.

A number of new and progressive ideas and their immediate implementation helped in providing quality services to the guests. Brand new water kettles of good quality and Televisions with a wide range of informative and entertainment channels are provided in all rooms. Fully automatic washing machines are installed in the storage area for the convenience of guests. New Wi-Fi ports installed in the main area provide for a better and wider area of distribution of internet services in all rooms with maximum speed. A new Microwave Oven has also been installed in the dining area for guests. All the rooms are fitted with high-quality mosquito nets. The maintenance and upkeep of the rooms help in providing the guests with maximum room hygiene and cleanliness.

The management of the day-to-day needs and running of the facility is managed by Mr Shareef. H.S, who is Guest House Manager as well as Asst. Administrative Officer at the Centre. He has been effectively managing the guest house for the last three years.

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 to CDS. In addition to this, he also is interested in writing and has recently published an article. 'Importance of Inspirations, Hard work, & Life Goals in Education,' in *Journal of School Planning & Management* by District Institute of Education & Training, Thiruvananthapuram and a book, *Indian Economy & Communication Gap*, Kindle Edition, p. 32, 18 November, 2015.

A New Permanent Solution to Leaks

CDS buildings which range from those constructed in the 1970s to the latest ones form an integral part of the campus. A new and permanent solution to the problem of leaking roofs (in some of the buildings) has finally been found. Under the supervision of Messrs. Costford, Mangalore tiles have been placed over the concrete roofs, adding to the beauty as well as ensuring that water does not seep on to the concrete roof. This cladding also helps with the insulation and wards off the heat in the summer months.

Mosquito Netting

With the increasing mosquito menace on campus, it was decided to take remedial measures by fixing mosquito nets in the buildings. Mosquito nets have been fixed on the windows/verandas in the Men's and Ladies hostel for students. In addition to this, netting was also fixed in the Gulati and Panikar blocks.

Well laid out Garden

The area alongside the computer building (Krishnan) is now the Butterfly Garden of the CDS. More than 50 varieties of butterflies are known to visit this area. To further attract them, special varieties of plants have been planted. A new water line with a sprinkler facility is installed to keep the area damp and moist. A wide array of flowering plants has also been planted during the year to make the campus more colourful.

Indoor Badminton Court

Work on the Indoor Badminton Court commenced on 19 October, 2017. This will be a long pending addition to the avenues for recreation within the campus. Facilities will include 17 specially crafted wooden benches capable of seating 100 spectators, a floor made out of wood with an international quality finish along with LED lighting as per standard specification used for badminton courts.





Dr Mihir Shah (Distingiushed Visiting Professor, Shiv Nadar University) delivering the Sixth Foundation Day Lecture at Baker Auditorium, CDS.



Professor Sukhadeo Thorat (Professor Emeritus, JNU) delivering the Seventh P.K. Gopalakrishnan Memorial Lecture at the Baker Auditorium, CDS.



Prof. Virginius Xaxa, Professor of Eminence, Tezpur University, Assam addressing participants of the ICSSR sponsored Capacity Building for Researchers in Social Sciences Training Programme conducted at the Centre in March 2018.



Dr. Madan Mohan Goel, Director of RGNIYD, Chennai and Dr AM Jayapathi Francis, Executive Director, LISSTR, Chennai, along with Prof S.Irudaya Rajan and Prof US Mishra, CDS addressing the participants of the 12 Migration Training Programme on 'Methods and Approaches in Research on Migration Issues.'



Prof Fred Gault (United Nations University- MERIT, Maastricht, Netherlands) addressing the participants of the Design and Evaluation of Innovation Policy (DEIP) Training programme at the CDS.

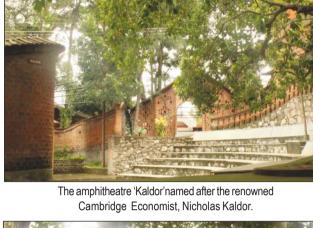


The new computer lab and digital class room with a seating capacity for 36 students.





Individual work cubicles have been provided for Doctoral Scholars this year.





Students making use of the washing machine facility provided in the hostels.



Work on the Indoor Badminton Court (IBC) with a seating capacity for 100 spectators was started during the year.



The newly installed Bain Marie Counter at the CDS Cafeteria.



The CDS Guest House is home to domestic as well as international visitors. A view of the reception.

GOVERNANCE AND ORGANISATIONAL STRUCTURE (As on 31 March, 2018)

COMMITTEES

Committee of Direction

K.M. Chandrasekhar (Chairman)

Jayati Ghosh

V.S. Senthil

Varun Sahni

C. Rammanohar Reddy

S. Irudaya Rajan

K.N. Harilal (on leave)

Sunil Mani (Convenor)

Finance Committee

K.M. Chandrasekhar (Chairman)

V.S. Senthil

Virendra Kumar Malhotra

Suresh Jnaneswaran

C. Rammanohar Reddy

S. Irudaya Rajan

K.N. Harilal (on leave)

Sunil Mani (Convenor)

JNU-CDS Committee of Direction for MA/MPhil/ PhD Programmes

Sunil Mani, Director, CDS (Chairman)

Madhura Swaminathan, (ISI, Bangalore)

Aditya Bhattacharjea, (DSE, New Delhi)

Kirshnendu Ghosh Dastidar, (JNU, New Delhi)

Meeta Keswani Mehra, (JNU, New Delhi)

S. Irudaya Rajan (CDS)

K.J. Joseph (CDS)

Praveena Kodoth (CDS)

Col. (Dr.) H. Sharma, Controller of Examinations, (JNU, New Delhi) Spl. Invitee

S. Suresh Kumar, CDS (Convenor)

Academic Programme Co-ordinators Integrated M.Phil/ PhD Programme:

Praveena Kodoth (Co-ordinator)

Vinoj Abraham (Associate Co-ordinator)

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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 leave)

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)

Himani Agarwal (MA representative)

Trishna Boruah (MA representative)

Vidyanand Thombare (MPhil representative)

Rajkumar Byahut (MPhil representative)

Indrajeet Kumar, (PhD representative) —Till January 2018

Suravee Nayak, (PhD representative)—Till January 2018)

Academic Programme Committee

Sunil Mani (Chairperson)

Sunandan Ghosh (Convenor)

All Faculty (Members)

Library Committee

Manmohan Agarwal (Chairman)

V. Sriram, (Chief Librarian)

J. Devika

S. Suresh Kumar (Registrar)

Ansamma Joseph

Shobana Kannan (retired on 31.1.2018)

Smruti Ranjan Sahoo (Student Representative)

Aayusha Kaul (Student Representative)

Vandana T.R.

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)

Rahul Kamal (Student Representative)

Seminars

P.L. Beena (Co-ordinator)

Ritika Jain (Associate Co-ordinator

Hostel Wardens

Ritika Jain

M. Parameswaran

Investment Committee

Sunil Mani (Chairman)

S. Irudaya Rajan



- 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

Sunil Mani (Chairman)

- K. Lekha (Convenor)
- S. Suresh Kumar (Registrar)
- V. Sriram (Chief Librarian)

Praveena Kodoth

Ritika Jain

Anitha G.P.

- K. Radhamoni
- G. Vijayan

Grievance Redressal Committee

Manmohan Agarwal (Chairman)

S. Suresh Kumar (Registrar)

Praveena Kodoth

Ritika Jain

Lekha K.

Emil Mathew Binny (Student Representative)

Committee Against Sexual Harassment

Praveena Kodoth (Chairperson)

Elsamma Praikalam (Advocate)

Vinoj Abraham

Radhamoni K

Ansamma Joseph

Vipitha V (Student Representative)

Kashif Mansoor (Student Representative)

Right to Information Act

S. Suresh Kumar, Registrar (Chief Public Information Officer)

Ajikumar A.R. (Asst. Public Information Officer)

Sunil Mani, Director (Appellate Information Officer)



FACULTY

Director

Sunil Mani Research Area: Economics of Technology and Innovation,

Ph.D in Economics Innovation Policy, Intellectual Property Rights, High Technology Industry

(CDS/JNU)

Professors

Joseph K.J. Research Area: Innovation and Development,

Ph.D in Economics India's Plantation Agriculture

(CDS/JNU)

Irudaya Rajan S. Research Area: Migration and Ageing

Ph.D.in Demography (IIPS, Bombay)

Udaya Shankar Mishra Research Area: Population Policies and Programmes,

Ph.D in Population Studies Gender and Reproductive Health and Analytical & Measurement

(IIPS, Bombay) Issues in Health

Harilal, K.N. Research Area: International Political Economy,

Ph.D in Economics Regional Economy of Kerala, Rural Development and Agrarian

(CDS/JNU) Relations, Local Governments and Democratic Decentralisation (On Leave from 1Dec, 2016)

Praveena Kodoth Research Area: Gender, Development and Migration

Ph.D in Economics
(University of
Hyderabad)
(Promoted to Professor
Under CAS Scheme from

March 17, 2018 onwards)

March 17, 2018, onwards)

Devika, J.Research Area: History of, and present developments in. Gender,
Ph.D in History

Politics, Development, and Culture in Kerala; the history of

(MG University) Migration and Cosmopolitanism in Kerala; Translations and translation

(Promoted to Professor Studies; Malayalam literature and Contemporary Politics Under CAS Scheme from

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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 Contempory 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

Parameswaran, M.

Ph.D in Economics

(CDS/JNU)

Research Area: Economic Growth, Macroeconomics,

Industrial Economics

Hrushikesh Mallick

Ph.D in Economics (University of Mysore) Research Area: Applied Development Economic Issues

Assistant Professors

Chinnappan Gasper

Ph.D in Education

Economics

(Pune University)

Research Area: Education

Sunandan Ghosh

(Jadavpur University)

Ph.D in Economics

Research Area: Industry and Trade, Macroeconomic Performance

Srikanta Kundu

(Indian Statistical Institute)

Ph.D in Quantitative Economics

Research Area: Time Series, Macroeconometrics, Financial Econometrics, Development Economics

Ritika Jain

Ph.D in Economics

(IGIDR)

Research Area: Industry, Empirical Political Economy,

Public Policy, State-Owned Enterprises

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Rajit Biswas

Research Area: International Economics, Industrial Organisations

Ph.D in Quantitative Economics (Indian Statistical Institute)

Abhilash Thadathil Research Area: Social Exclusion, Indigenous Studies,

Ph.D in Economics Political Economy

(JNU)

Jayaseelan Raj Research Area: Anthropology of Development,

Ph.D in Social Anthropology Poverty & Inequality, Plantation Labour, Industrial Work

(University of Bergen, Norway) and Social Life, Ethnographic Methods

Chandril Bhattacharyya Research Area: Growth Theory

Ph. D. in Quantitative Economics (Indian Statistical Institute, Kolkata)

Seenath P Research Area: Agricultural Economics

Ph.D in Agricultural Economics (Kerala Agricultural University)

RBI Chair Professor

Manmohan Lal AgarwalResearch Area: History of International Monetary System,Ph.D in EconomicsImplication of Establishment of New Development Bank

(Massachusetts Institute of Analysis of Structural Change in Indian Economy and

Technology, USA) 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 PillaiP. SivanandanFormer 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 Research Area: Social and Labour Policies, Social Protection

Ph.D in Economics (University of Kerala)

Visiting Research Fellow

R. Mohan Research Area: Public Finance, Centre-State Relation with

MPhil in Applied Economics focus on Devolution of Resources & Kerala Public Finance, Trends in India's Economic

Growth

James J. Nedumpara Research Area: International Trade Law

PhD (New York)



ADMINISTRATION

S. Suresh Kumar Registrar

Shareef H.S. Assistant Administrative Officer

Ajikumar A.R. Administrative Assistant

(designated as PS to Registrar)

K. Lekha Receptionist cum Public Relations

Assistant

Academic Programme Office

T.S. Geetha Devi Assistant Administrative Officer
Raji R.S. Junior Administrative Assistant
Arun K.C. Junior Administrative Assistant

Faculty Support Services

Emmanuel T.J. Personal Assistant

Satheesh S.S. Junior Administrative Assistant

Guest House

Shareef H.S. Assistant Administrative Officer

(designated as Guest House

Manager)

Saibabu S. Attendant
Sumesh C.S. Attendant

Publications

Tilak Baker Publication Officer

Finance

S. Suresh Finance Officer

Venukumar V Accounts Officer cum Internal

Auditor

T.N. Anirutdhan Asst Accounts Officer

(Retired on 31 October, 2017)

Arun Hrishikesh Asst Accounts Officer
K.Radhamoni Asst Accounts Officer

Reeshma R.S Jr. Accountant
Biju R.S. Attendant

Director's Office

Praveen G. Section Officer

(designated as P.S. to Director)

Ajayanandam S Attendant

Estate and Engineering

Aanandh N.R. Campus Supervisor

Anoop Kumar P.P. Assistant Campus Supervisor

G.Vijayan Attendant

Transport

V. Surendran Driver Grade I

COMPUTER CENTRE / IT

V. Sarath Systems Officer

K.N. RAJ LIBRARY

V. Sriram Chief Librarian

Ansamma Joseph Senior Assistant Librarian
G.P. Anitha Senior Assistant Librarian

Shobhana Kannan Assistant Librarian

(Retired on

31 January, 2018)

Ameer Ali Assistant Librarian
S. Gopakumar Assistant Librarian

Sivakumar P Junior Assistant Librarian

Sumesh C.S. Attendant



Internal Complaints Committee Report (2017-18)

a. Number of complaints of sexual harassment received in the year:

A student approached the Chairperson about an incident that would have come under the purview of the ICC but she did not wish to make a formal complaint. The Chairperson ascertained the validity of the complaint from the accused, had a discussion that sought to conveyed the nature of the violation and cautioned him against such behaviour.

b. Number of complaints disposed off during the year:

On a request to file a complaint the Chairperson interacted with the aggrieved women but was not convinced that the complaint came within the purview of the Act of 2013. The request and following communication was circulated among the ICC and the Chairperson sought the advice of some members. The request was forwarded to the Director.

- 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, One meeting organised for all members of CDS to clarify norms regarding civil order and gender equality in the hostels and on campus in March 2018.
- e. Nature of action taken by the employer: None

RESEARCH

9

(a) CULTURE AND DEVELOPMENT

Completed Studies

 What Drives Women to attempt Suicide by Burning Themselves? Shame, Humiliation and the Patriarchal Violence of Marriage

Praveena Kodoth

Status: Written and submitted to Vimochana for an edited volume on the Campaign on Unnatural Deaths of Women in Marriage (submitted August 2017)

(b) DECENTRALISATION AND GOVERNANCE

RESEARCH PROJECTS

Ongoing Projects

2. Persisting Pollution in Periyar: The Political Ecology of Industrialisation and Limits to Environmental Governance

J. Devika, N.C. Narayanan, CTARA, IIT Mumbai and Chithira Vijayakumar.

Sponsor: RULSG small grant

Status: To be published as a short monograph in a

series to be initiated by the RULSG.

(c) GENDER AND DEVELOPMENT

Completed Studies

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

J.Devika and Jyothi S Nair

Status: RULSG Lateral Studies Series on Kudumbashree -3

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

Praveena Kodoth and Shraddha Jain (Doctoral Scholar)

Status: In edited volume N Neetha ed., Working in other's homes: the specifics and challenges of paid domestic work, New Delhi: Tulika

5. Interest Conflicts, Indian State Policy and Unauthorized Recruitment to the Middle East: the Case of Women Domestic Workers from South India

Praveena Kodoth

Status: Volume edited by Michiel Bass. The Migration Industry Facilitators and Brokerages in Asia, Palgrave Pivot series

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Ongoing Studies

6. Gender Development Index: Revisiting the UNDP Approach

Udaya S Mishra Status: Ongoing

RESEARCH PROJECTS

Ongoing Projects

7. Gender and Migrant Breadwinning: Understanding the Specificities of Remittances from Overseas Work by 'Unskilled' Women from Kerala

Praveena Kodoth and Manmohan Agarwal Sponsor: Kerala in the World Economy, ICSSR Status: Ongoing

8. Preparation of a Gender Development Index

Udaya S. Mishra

Sponsor: EMERGE Research Grant from University of

California San Diego Status: Ongoing

(d) HUMAN DEVELOPMENT HEALTH AND EDUCATION

Completed Studies

9. Policies & Partnerships in Improving Social Demand for School Education in Kerala

C. Gasper

Status: Chapter in Book

10. Financing of Medical Education

C. Gasper

Status: Chapter in a book

11. Skill Development in Africa: Scope for India Japan Cooperation-Asia Africa Growth Corridor, Research and Information Systems

Manmohan Agarwal Status: Completed

12. Did The Millennium Development Goals Work? Meeting Future Challenges with Past Lessons

Manmohan Agarwal, Hany Besada and Leah McMillan Polonenko (eds)

Status: Published by Policy Press, University of Bristol 2017.

13. An Economic Analysis using 'index of relative deprivation' in Understanding Gains from Internal Migration in India

Udaya S Mishra and Pinak Sarkar Status: Manuscript under communication

14. Public Interventions & Problem of Tobacco Use in India: A Critical Review

Udaya S. Mishra and Sanchita Mukherjee Status: Manuscript under communication

15. A Re-Assessment of Internal Migration in India: Qunatum-Adjusted for Quality

Udaya S. Mishra & Pinak Sarkar Status: Manuscript under communication

16. Demand for Domestic Workers in India: Its Characteristics and Correlates

Udaya S. Mishra & Shraddha Jain Status: Manuscript under Review

17. India's Aged: Needs and Vulnerabilities

Udaya S. Mishra and S. Irudaya Rajan (eds) Status: Book by Orient Blackswan

18. Does Quality Qualify the Kerala Model? Decentralized Governance, Human Development and Quality

N. Vijayamohanan Pillai Status: To be published

19. Development as a 'Norms-Rights Transition Process' Through Public Action

N. Vijayamohanan Pillai Status: To be published



20. The Dialectics of Motivation and Action: A Look into the 'Why' of the "Kerala Model"

N. Vijayamohanan Pillai Status: To be published

21. Indicators of Poverty and Inequality: Unidimensional and Multidimensional

N. Vijayamohanan Pillai

Status: Paper presented in a Seminar; to be published.

22. From Growth to Human Development, Happiness and Inclusive Wealth: Concepts, Methods and Problems

N. Vijayamohanan Pillai

Status: Paper presented in a Seminar; to be published.

Ongoing Studies

23. Class Size and its Impact on School Education in Kerala

C. Gasper

Status: Ongoing

24. Abuse and Neglect of the Elderly in India

S. Irudaya Rajan and Mala Kapoor Shankardass (Eds.)

Status: Ongoing

25. Measuring Intersectional Inequalities in Health: An Application in the Context of Institutional Delivery in India, 2004-2014

Udaya S Mishra Status: Ongoing

New Initiatives

26. Nomadism, Gathering and Trajectories of Uneven Inclusion: A Case study of Vulnerable Indigenous Communities in Kerala.

Abhilash T

Status: New Initiative

RESEARCH PROJECTS

Completed Projects

27. A Panel Study of Migration in South India

S. Irudaya Rajan and Ganesh Sheshan (World Bank)

Sponsor: New York University

Status: To publish as research article.

Ongoing Projects

28. Relative Contributions of Adult Daughter and Sons to Elderly Parents' Care in India

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

Sponsor: SSHRC Status: Ongoing

29. Impacts of Demand-side Financing Instruments on the Continuum of Care for Maternal and Child Health in India and Bangladesh

Udaya S. Mishra

Sponsor: DBT-MRC-DFID

Status: Ongoing

(e) INDUSTRY AND TRADE

Completed Studies

30. Export Employment Conundrum in India's Manufacturing under Globalization: In search of a Strategic Approach

K.J. Joseph and Kiran Kumar Kakarlapudi

Status: Completed

31. Tariffs, Efficiency Ages and Unemployment

Rajit Biswas and Kumarshubham

Status: Accepted in Journal of Industry Competition and Trade.

32. Public Sector Enterprise Disinvestment in India: Efficiency Gains in a Political Context?

Ritika Jain

Status: Accepted at Journal of Asian Economics



33. Contributions to the Exchequer Funds by State Level Public Sector Enterprises: Does Political Alignment Matter?

Ritika Jain

Status: Accepted at Constitutional Political Economy

34. An Empirical Analysis of Disinvestment Policy in India: Does Ideology Matter?

Ritika Jain and Shubhro Sarkar

Status: Accepted at Journal of Economic Policy

Reform

35. Delegation in Customs Union under Taste Diversity

Sunandan Ghosh

Status: Communicated to journal

36. Parallel Imports, Product Quality and Endogenous Trading Bloc Formation

Sunandan Ghosh

Status: Communicated to journal

37. India-China Trade: Asymmetric Developments and Future Prospects?

Sunandan Ghosh and Manmohan Agarwal Status: To be communicated to journal

Ongoing Studies

38. IPR Regime and Competitive Strategies: India in a Comparative Perspective

P.L.Beena

Status: Ongoing

39. India's Outward Foreign Direct Investment under WTO regime and Development Implications

P.L. Beena Status: Ongoing

40. Innovation and Public Goods

Rajit Biswas

Status: Ongoing, to be submitted to a journal.

41. Price Dispersion in Indian Online Market: Seller vs. Product Effects

Ritika Jain and Anupama K John

Status: Under Review.

42. To Profit or Not to Profit? The Case of State Level Public Sector Enterprises in India

Ritika Jain

Status: Under Review for publication

43. Enlargement Decisions of RTBs with Asymmetric Members

Sunandan Ghosh

Status: To be communicated to journal.

44. The Puzzle of Mid-size firm in the organised Manufacturing Sector

Sunandan Ghosh and Vinoj Abraham

Status: Ongoing.

45. Skilled-unskilled Wage-gap in Indian Manufacturing

Sunandan Ghosh, Simontini Das and Saikat Sinharoy

Status: Ongoing.

RESEARCH PROJECTS

Completed Projects

46. Outward FDI and Cross-Border M&As by Indian Firms: A Host Country-Level Analysis Beena P.L.

Sponsor: SEED Grant Status: Completed.

47. Is there Complementarity between Aid, Trade and FDI from India?

Beena P.L. and Meena Abraham Chacko

Sponsor: SEED Grant Status: Completed.

48. Pattern of International Trade through Kerala under WTO regime

P.L. Beena

Sponsor: Kerala and the World Economy, CDS

Status: Ongoing.

New Initiatives

49. IPR Regime and Indian Industrial Development

Beena PL and Siddik Rabiyath

Status: New initiative.



(f) INNOVATION AND TECHNOLOGY

Completed Studies

 Mode of Interaction, Technological Learning and Regional Inequality: China's Experience during 1990-2015

K.J. Joseph, Liyan Zhang and Kiran Kumar Status: Journal Article planned.

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

Ritika Jain

Status: Accepted at International Journal of Technological Learning, Innovation and Development

52. Robot Apocalypse, Does it matter for India's Manufacturing Industry

Sunil Mani

Status: Already brought out as a CDS Working Paper No: 474. The paper is now under consideration by an academic journal.

Ongoing Studies

53. State Ownership and the Relationship between Corporate Social Responsibility and Research and Development Spending: The Case of India

Ritika Jain

Status: Yet to send to a journal.

54. The Diffusion of a Cashless Economy in India, Its Trends and Challenges

Sunil Mani

Status: To be published as a journal article after completion.

55. Emerging Technology, State and National Innovation Capability: An International Comparative Analysis based on Artificial Intelligence (AI) and Robotics and Autonomous Systems

> Sunil Mani, Yasushi Hara, École des hautesétudes en sciences sociales (EHESS), Center for French-Japanese Advanced Studies in Paris (CEAFJP) Status: Ongoing.

New Initiatives

56. Diffusion of Industrial robots and manufacturing employment, An international comparative analysis
Sunil Mani and Patarapong Intarakumnerd (National Graduate Institute for Policy Studies, Tokyo)
Status: Publication as Working Paper and then a journal article.

(g) LABOUR, EMPLOYMENT AND SOCIAL SECURITY

Completed Studies

57. Using Partnerships for Effective and Efficient Delivery of Employment Services and Active Labour Market Policies: The Case of India

Vinoj Abraham and Sasikumar, S. K. Status: Appeared as a working paper for ILO and also being sent to a journal for publication

58. Declining Wage Share in India's Organised Manufacturing Sector: Trends, Patterns and Determinants

Vinoj Abraham and Sasikumar S K Status: ILO Asia-Pacific Working Paper Series, DWT for South Asia and Country Office for India http:// www.ilo.org/newdelhi/whatwedo/publications/ WCMS_614777/lang—en/index.htm

Ongoing Studies

59. Long Run Employment Growth in India: Is it Jobless Growth or Structural Transformation

Vinoj Abraham

Status: CDS working paper and a journal of repute after completion.

New Initiatives

60. Transforming Rural Households in India

Vinoj Abraham

Status: New initiative.



RESEARCH PROJECTS

Completed Projects

61. Stagnant Employment Growth in India: Last Three Years may have been the Worst

Vinoj Abraham

Sponsor: CDS Seed money for faculty

Status: Published in Economic and Political Weekly

Ongoing Projects

62. Kerala's Labour Market: Emerging Trends and Patterns

Vinoj Abraham

Sponsor: CDS through Kerala the World Economy Project

Status: Ongoing CDS working paper and a journal of repute after completion.

(h) MACROECONOMIC PERFORMANCE

Completed Studies

63. An Empirical Investigation of Determinants of C/A
Performance in India: Role of Crude Oil Imports,
Financial Development and Fiscal Balance and
Lessons from an Emerging Economy

Hrushikesh Mallick, Manoranjan Sahoo, (HSS, IIT Madras) Mantu Kumar Mahalik (NIT Rourkela), Stelios Bekiros (Vill La Fonte, Italy)

Status: Currently working on the reviewer's comment received from "The Energy".

64. "Is Skewed Income Distribution Good for Environmental Quality? A Comparative Analysis among Selected BRICS Countries"

Mantu Kumar Mahalik (NIT Rourkela), Hrushikesh Mallick, Hemachandra Padhan (NIT Rourkela), Bhagaban Sahoo (Anandapur College, Odisha) Status: Submitted the revised work to "Environmental Science and Pollution Research".

65. Is Globalization Detrimental to Financial Development? Further Evidence from a very Large Emerging Economy with Significant Orientation Towards Policies

Hrushikesh Mallick, Muhammad Shahbaza, Mantu Kumar Mahalik and Shawkat Hammoudeha Status: Published in *Applied Economics*. Vol. 50(6), 2018.

66. Determinants of Workers' Remittances into Developing Asian Economies

Hrushikesh Mallick

Status: Published in *The World Economy*, Vol. 40 (12) (2017), pp. 2875–2900.

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

Hrushikesh Mallick, Mantu Kumar Mahalik, Manoranjan Sahoo

Status: Accepted and in the press with the *Energy Economics*.

68. Monetary Policy: Its Changing Objectives, Instruments and Results

Manmohan Agarwal and Irfan Shah (Research Scholar)

Status: RIS Discussion Paper 212, 17 November, 2017.

69. Inflation in India

M.Parameswaran and Pulapre Balakrishnan Status: First as CDS working paper and journal article.

70. Regime dependent effects of uncertainty on inflation and output growth: evidence from the United Kingdom and the United States

Srikanta Kundu, Kushal Banik Chowdhury and Nityananda Sarkar

Status: Published in Scottish Journal of Political Economy. January 2018.



71. Foreign Direct Investment and Poverty Reduction: India in Regional Context

Srikanta Kundu, Manmohan Agarwal and Pragya Atri Status: Published in *South Asia Economic Journal* Vol. 18(2), Page 135-157.

72. 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: Submitted to North American Journal of Economics and Finance.

73. Conceptualizing and Measuring Inclusive Growth

N. Vijayamohanan Pillai

Status: Presented at Workshop.

Ongoing Studies

74. Role of Globalization, Infrastructure, Human Capital Formation in Income Inequality: Contrasting Insights from Two Emerging Economies, China and India

Hrushikesh Mallick, Mantu Kumar Mahalik (NIT Rourkela), Hemachandra Padhan (NIT Rourkela), Status: Journal publication.

75. Economic Policy Uncertainty and Inflation Uncertainty: Evidence from Developed and Emerging Economies

Srikanta Kundu, Kushal Banik Chowdhury and Amartya Paul

Status: To be communicated in Journal

New Initiatives

76. Carbon Emissions and Income Inequality in Selected BRICS Countries: Evidence from Q-Q Regression Approach

Hrushikesh Mallick, Hemachandra Padhan, Mantu Kumar Mahalik

Status: New Initiative.

RESEARCH PROJECTS

Completed Projects

77. Assessing Development: Where are the Indian States?

M. Parameswaran, Amit S Ray and Manmohan Agarwal

Sponsor: Kerala State Planning Board

Status: Published as a CDS Monograph. Now in the process of publishing a book based on this research.

78. Migration, Remittances and Dutch Disease: Evidence from Kerala Economy

M. Parameswaran

Sponsor: Funded from Research unit on Kerala and World Economy

Status: Now revising in order to publish first as CDS working paper and later as journal article.

(i) MIGRATION

Completed Studies

79. India Migration Report 2017: Forced Migration

S. Irudaya Rajan (ed)

Status: Book by Routledge.

80. South Asia Migration 2017: Recruitment, Remittances and Reintegration

S. Irudaya Rajan (ed)

Status: Book by Routledge.

Ongoing Studies

81. India Migration Report 2018: Migrants in Europe

S. Irudaya Rajan

Status: Ongoing.

82. India Migration Report 2019: Diaspora in Europe

S. Irudaya Rajan

Status: Ongoing.



83. South Asian Migration in the Gulf: Causes and Consequences

Mehdi Chowdhury and S. Irudaya Rajan Status: Ongoing.

RESEARCH PROJECTS

Ongoing Projects

84. Kerala Migration Survey, 2018

S. Irudaya Rajan and K.C. Zachariah

Sponsor: Department of NORKA, Govt. of Kerala

Status: Ongoing.

85. Demography, Migration and its Impact on Kerala Economy

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

Sponsor: ILO, New Delhi.

Status: Ongoing.

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

S. Irudaya Rajan and Bharati Basu (Central Michigan

University, United States of America) Sponsor: UAE Exchange Centre LLC

Status: Ongoing.

New Initiative

87. Kerala Migration Survey 2018 Panel Surveys

S. Irudaya Rajan and K C Zachariah

Sponsor: REALM
Status: New Initiative

(j) PLANTATION CROPS

Ongoing Studies

88. Constraints to Diffusion/adoption of Innovations in Natural Rubber: Study of Tapping Practices and Rain Guarding

K.J. Joseph and Kiran Kumar Kakarlapudi Status: Ongoing

89. The Harvest is Plentiful but the Harvesters are a Few? An Exploration of the below Potential of Natural Rubber

K.J. Joseph and Kiran Kumar Kakarlapudi Status: Ongoing

90. Diffusion/adoption of Innovations in Coffee: A Study of Chandragiri Variety

K.J. Joseph and Kiran Kumar Kakarlapudi Status: Ongoing

91. Post-harvest Issues in Spices: Study of Coriander and Cumin

K.J. Joseph and Kiran Kumar Kakarlapudi Status: Ongoing

(k) POLITICS AND DEVELOPMENT

Ongoing Studies

92. Search Generated Unemployment and Nepotism

Rajit Biswas and Debojyoti Mazumder (IIM Indore) Status: Ongoing

93. Efficiency of Indirect Taxes in Oligopoly in Presence of Fixed-cost in Production

Rajit Biswas and Neelanjan Sen (Madras School of Economics)

Status: Ongoing

94. Analysis of Lok Sabha Elections: BJP vs. INC

Ritika Jain

Status: Study is at a nascent stage- working on data analysis.

95. Path Dependency: A Marxist Interpretation

N. Vijayamohanan Pillai

Status: Ongoing

96. Revisionism: The Game of Filling in the Marxian Blanks

N. Vijayamohanan Pillai

Status: Plan as Chapter in book.



New Initiative

97. Contemporary Transformations in Dalit-Adivasi Struggle in Kerala

Jayaseelan Raj

Status: New Initiative (This research will be published as an ethnographic monograph)

(I) OTHER STUDIES

Completed Studies

98. Panel Data Analysis with Stata: Part 2- Problems of Non-Spherical Error

N. Vijayamohanan Pillai

Status: Part of a book on panel data analysis.

99. Panel Data Analysis with Stata: Part 3 - Problem of Endogeneity

N. Vijayamohanan Pillai

Status: Part of a book on panel data analysis.

100. A Critique of Economic Philosophy from Pre-Classical to New Consensus

N. Vijayamohanan Pillai

Status: For Publication.

101. Why Do We Do What We Do with Statistics?

N. Vijayamohanan Pillai

Status: For Publication.

New Initiatives

102. A Topical Encyclopedic Dictionary of Econometrics

N. Vijayamohanan Pillai Status: New Initiative

CENTRE FOR DEVELOPMENT STUDIES

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH, 2018

EXPENDITURE	Sch.	31 March 2018 (Rs.)	31 March 2017 (Rs.)	INCOME	Sch.	Amount (Rs.)	31 March 2018	31 March 2017
FACULTY & STAFF COST	_	5,71,33,938	5,73,55,780	GRANT IN AID A. FROM ICSSR				
FELLOWSHIP	7	39,82,275	33,19,188	SALARY NON-PLAN		2,68,00,000	3,26,00,000	3,01,52,000
ACADEMIC DEVELOPMENT	က	1,14,31,796	1,27,77,754	B. FROM GOVT. OF KERALA				
REPAIRS & MAINTENANCE	4	78,10,856	88,52,678	PLAN NON-PLAN	., .,	3,07,50,000	6,26,22,000	6,90,15,000
ADMINISTRATIVE EXPENSES	2	25,85,422	25,15,957	TOTAL GRANT (A+B)			9,52,22,000	9,91,67,000
SPONSORED RESEARCH/ FELLOWSHIP/	9	1,76,24,357	1,16,31,951	EXPENDITURE				
PROJECTS EXPENSE				ICSSR RESEARCH PROMOTION GRANT		<u> </u>	7,89,53,060	8,28,77,789
SURPLUS FROM & RECOVERY OF OVERHEADS TRANSFERRED TO ENDOWMENT FUND	<u> </u>	98,53,553	88,74,281	: OPENING BALANCE RESEARCH PROMOTION GRANT FROM ICSSR : RECEIVED				
PRIOR PERIOD EXPENSE	80		425	TOTAL				2 70 731
ICSSR RESEARCH PROMOTION GRANT UTILISED			2,79,731	BALANCE CARRIED OVER FOR				2, 6, 7,
ICSSR ORIENTATION PROGRAM FOR SC/ST		14,00,000	6,00,000	ICSSR ORIENTATION PROGRAM : SC/ST			14,00,000	6,00,000
NET INCOME FROM FARMARKED FILINDS	α	4 04 29 912	4 16 77 895	FEES RECEIVED	<u></u>		9,96,760	10,14,810
TRANSFERRED TO RESPECTIVE FUNDS)			OTHER INCOME	10	31,51,629	3 80 856	4 60 602
DEPRECIATION	ഗ	1,36,64,543	1,47,31,162	ENDOWMENT FUND		2, 5, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,00,0
				SPONSORED RESEARCH/ FELLOWSHIP/ PROJECT/ INCOME TRANSFERRED	9		1,76,24,357	1,16,31,951
				SURPLUS FROM & RECOVERY OF OVERHEADS TRANSFERRED FROM PROJECT FUNDS			98,53,553	88,74,281
				INTEREST ON INVESTMENT OF EARMARKED FUNDS	m	5,27,94,264		
				LESS: EXPENDITURE		1,23,64,352	4,04,29,912	4,16,77,895
				TRANSFER FROM GENERAL FUND (DEPRECIATION)	Ŋ		1,36,64,543	1,47,31,162
				TRANSFER FROM ENDOWMENT FUND (DEFICIT)			26,13,611	4,68,581
TOTAL		16,59,16,652	16,26,16,802	TOTAL		•	16,59,16,652 16,26,16,802	16,26,16,802

CENTRE FOR DEVELOPMENT STUDIES

BALANCE SHEET AS AT 31st MARCH, 2018

LIABILITIES		As at 31.3.18 (Rs.)	As at 31.3.17 (Rs.)	ASSETS		As at 31.3.18 (Rs.)	As at 31.3.17 (Rs.)
GENERAL FUND	< ₪	10,73,74,457	10,45,85,987	FIXED ASSETS	Ŋ	10,65,27,307	10,37,38,837
	o c	12,70,095	12,06,345	EARMARKED FUNDS LOANS & ADVANCES	ш	74,77,83,030	69,72,98,145
CURRENT LIABILITIES OUTSTANDING EXPENSES OTHER AMOUNTS PAYABLE	Δ	1,00,300	78,20,772 17,556	W F LOAN/OTHER ADVANCE PREPAID EXPENSES	ェー	47,50,552 6,62,378	44,56,507 32,54,655
UNSPENT GRANT	Ш	23,26,399	23,26,399	CORRENT ASSETS CLOSING STOCK CASH & BANK BALANCES	¬ ×	50,789	3,94,804
SPONSORED PROJECTS & FELLOWSHIPS UNSPENT GRANT	Щ	1,31,43,515	89,52,120				
TOTAL		87,60,01,006	82,61,54,603	TOTAL		87,60,01,006	82,61,54,603



NATIONAL INSTITUTIONAL RANKING FRAMEWORK

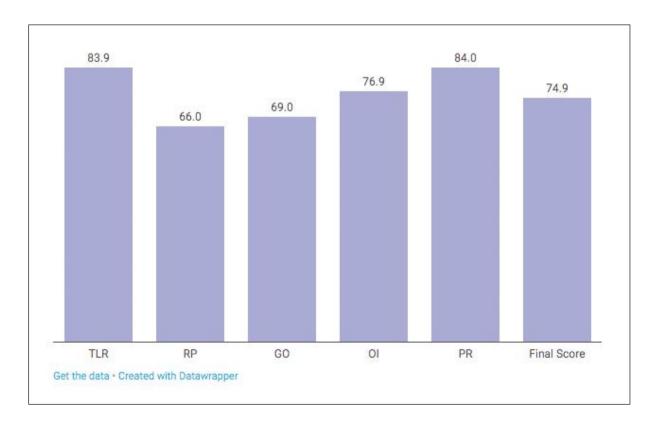
The Ministry of Human Resource Development has introduced a comprehensive framework for assessing and charting the performance of higher education institutes in the country. Based on the framework, ranking of universities, colleges and institutes are now available for the years 2016, 2017 and 2018. The 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 bench mark 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 74.85 out of 100, CDS is one of the top ranking research and teaching centers institutes in the country.

#	Parameters	Marks (100)
1	Teaching, Learning & Resources (TLR) [Ranking weight: 0.30]	83.88
	A. Student Strength including Doctoral Students (SS): 20 Marks	11.40
	B. Faculty-student ratio with emphasis on permanent faculty (FSR): 30 marks	30.00
	C. Combines metric for Faculty with PhD (or equivalent) and Experience (FQE): 20 Marks	18.05
	D. Financial Resources and their Utilisation (FRU):30 Marks	24.43
2	Research and Professional Practice (RP) [Ranking weight: 0.30]	66.00
	A. Combines metric for Publications (PU): 30 marks	30.00
	B. Combines metric for Quality of Publications (QP): 40 marks	20.00
	C. IPR and Patents: Filed, Published, Granted and Licenses (IPR): 15 marks	6.00
	D. Footprint of Projects, Professional Practice and Executive Development Programs (FPPP): 15 marks	10.00
3	Graduation Outcomes (GO) [Ranking weight: 0.20]	69.00
	A. Combined metric for Placement, Higher Studies, and Entrepreneurship (GPHE): 40 marks	32.00
	B. Metric for University Examinations (GUE): 15 marks	15.00
	C. Median Salary (GMS): 20 marks	10.50
	D. Metric for Graduating Students Admitted into Top Universities (GTOP): 15 marks	1.50
	E. Metric for Number of Ph.D. Students Graduated (GPHD): 10 marks	10.00



4	Out	reach and Inclusivity (OI) [Ranking weight: 0.10]	76.85		
	A.	Percent Students from other states/countries (Region Diversity RD): 30 marks	21.25		
	В.	Percentage of Women (Women Diversity WD): 25 marks	23.60		
	C.	Economically and Socially Challenged Students (ESCS): 25 marks	22.00		
	D.	Faciliities for Physically Challenged Students (PCS): 20 marks	10.00		
5	Per	ception (PR) [Ranking weight: 0.10]	84.00		
	A.	Peer Perception: Employers and Research Investors (PREMP): 25 Marks	20.00		
	B.	Peer Perception: Academic Peers (PRACD): 25 marks	20.00		
	C.	Public Perception (PRPUB): 25 marks	20.00		
	D.	Competitiveness (PRCMP): 25 marks			
l	Final Score: $\{(0.3 \times 83.88) + (0.3 \times 66) + (0.2 \times 69) + (0.1 \times 76.85) + (0.1 \times 84)\} = 74.85$				

NIRF Scores for CDS, 2017



Honorary Fellows/Associate Fellows

as on 31.3.2018

Honorary Fellows

Vaidyanathan A.

Former Fellow, CDS

George P.S.

Former Director and 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

Cover Photo: Ajikumar A.R.



Centre for Development Studies

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